

CHRONOLOGY

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treaty
BYZANTINE STUDIES

PUBLISHED BY
PAUL LEMERLE

WITH THE HELP OF

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I
CHRONOLOGY

by

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TREATISE ON BYZANTINE STUDIES

*The "Treaty" that we have the ambition to carry out is not intended for those who have acquired, in the matters that each volume will deal with, the competence of the specialist. **Nor** does it claim to be a definitive sum. He would simply like to bring to a vast and complex discipline the Byzantineism understood in the broadest sense — we would gladly say: the history of the Eastern Middle Ages, of which Byzantium was the pivot — a working instrument which he lacks.*

Most of us, in fact, in the practice of teaching or in that of research, have made two observations.

*The first is that those who approach Byzantine studies, head-on or from a bias, to devote themselves to them or for occasional research, have at their disposal a few works, sometimes excellent, from which they can draw general information; they find little or no information which, introducing them to methods and techniques, enable them to do **personal work without first losing a great deal of time to a painful and perilous trial and error.***

*The second is that Byzantineism is threatened with asphyxiation. The nourishing sap, which he should draw from an ever-expanding and renewed study of texts and documents, is drying up. Not for lack of texts or documents: they are, on the contrary, very numerous. But many remain unpublished; most of the others are poorly edited, poorly studied, inaccessible, difficult or dangerous to use. The most necessary task for the progress of Byzantine studies is to **publish or republish the sources.***

Techniques, methods, editing and criticism of sources: these are the concerns that have inspired the programme of this Treaty, which, more than the balance sheet of the past, would like to be an instrument for the future, and which has been given a character above all practicality.

* *

*The first two volumes appeared: *La chronologie*, by V. Grumel, and *Les papyrus*, by A. Bataille. The following volumes have been on site for a long time, and will appear at a rate that we hope will be fairly rapid:*

- III. Manuscripts, by A. Dain.
- IV. Archival documents, by P. Lemerle.
- V. Inscriptions, **by P. Lemerle.**
- VI. La sigillographie, by V. Laurent.
- VII. Numismatics, by V. Laurent.
- VIII. Les sources littéraires, **by R. Guillard.**
- IX. Language, by A. Mirambel.

This series of nine volumes corresponds to the initial "minimum" programme, so to speak, the execution of which seems to be assured from now on. But there is a desire to recruit new professionals, especially among young people. It is also hoped that some of them will be filled by devoting a series of papers to particular categories of sources, each of which has its own unity and its own problems: for example, there. de Malafosse will deal with legal collections; A. Dain, works of military art; the R.P. Halkin, lives of saints; others, scientific writings, canonical collections, works of spirituality, etc.

Finally, we have the ambition to crown the treatise of Byzantine studies with a work which, going beyond the frameworks of the Greek empire of Orient, but thereby placing it in its true context and giving it its true meaning, will deal with countries and peoples whose history was intimately mixed with that of Byzantium. For each of them — Persia, Armenia, Bulgaria, Russia, Serbia, Arab peoples, Turks, etc. — the chronological, geographical and historical data and references necessary for the Byzantineist will be collected in condensed form to broaden his own field to the dimensions of the problem which must inform and guide his research: Byzantium and the medieval world.

Paul LEMERLE.

foreword

The title of "Chronology" given to this first volume of the *Treatise on Byzantine Studies* may have led many to believe that it would consist in an orderly enumeration of the events that form the fabric of the long history of Byzantium and its Empire, with indication for each of them of the sources of all provenance and implementation of the latest results of criticism; in short, a recasting, responding to the progress made and the current requirements, of the famous *Essay of Byzantine chronology* of E. de Muralt, published in the last century. Such an undertaking is, of course, most desirable and worthy of trying a courageous team. Other is the purpose of this book. It has in view not the chronological course of events, but the modes or processes of dating used in the multiple and diverse sources of interest to Byzantine history, as well as the way in which they are interpreted and used correctly. Its own object, in a word, are the *means of chronology in the Byzantine studies*. They are of various orders: years of the world, calendars specific to this or that country, cycles of years, civil and religious eras, limits of reigns or pontificates, indications of liturgical days or festivals, natural phenomena; All of that is part of our agenda.

Among these means of dating, the most commonly used in the sources is the calculation of the years since the beginning of the world, or world era. This calculation has as an essential assumption, common to all chronographs, a literal interpretation of the first chapter of Genesis on the six days of creation and an astronomical system that corresponds to it. It is absolutely necessary to take the same perspective if we want to see how the chronographers were able to proceed. It should come as no surprise that we are entering their system to understand them.

The beginning of the world was variously evaluated by chronographs, and different eras of the world were used. It was necessary to indicate the basis for these assessments and the causes of this diversity. An examination of previous chronologic works, even the most developed, has caused us disappointment and sometimes surprise on this subject, since some explanations ultimately have no authority other than the illustrious name that houses them. It was therefore necessary to resume the study in depth. The multiple researches, confrontations and verifications that had to be done and redone, the discussions through which we had to go, the results that we reached are the *raison d'être* and constitute the subject of the essay that opens the volume under the title: *The origin of the world eras*.

It may seem to some that various parts of our work, and even the general idea, are not entirely new. It is because we have indeed communicated here and there the results of our research: to the Association of Greek Studies, by dealing with the "era of the Romans" (summarized in REG, 66, 1953, p. xi); to the International Congress of Byzantine Studies in Thessaloniki (1953), where listeners who had not attracted elsewhere from the austere meetings were able to hear the final and summary chapter of *The origin of the world eras* (summarized in the notebook communicated to the congressmen; in *Byzantion*, t. 22, 1952 (published in 1953), p. 420; and in the H z. 7-cp xypIvo: of the Congress, t. II, 1956, p. 434). In addition, the REB welcomed two articles, one on the first world eras and their foundations (t. 10, 1952, pp. 93-108), the other, on the Byzantine indiction (t. 13, 1954, pp. 128-143). They have been included in this volume, but revised and directed, and it is to this new text that criticism will henceforth have to refer.

Readers already informed by these partial papers will at least find in the present study, which now replaces them, in addition to clarifications on particular questions which relate to the whole, the detailed justification and to the sequence of our synthesis on the origin of the world eras.

If one should not look in this volume for a chronography like that of E. de Murait, one should not expect to find a work of chronology strictly technical. It will always be necessary to resort for this to the **fundamental** works of Pétau, Ideler, Ginzel, Schram, Neugebauer, to name only those that we have made special use of. We have used them according to the object and in the direction of our research, endeavouring to identify all that was necessary and useful for the fabric of our presentation and for the control of our deductions and conclusions.

Finally, let's say a word from the bibliography. It will soon be recognized that it is far from exhaustive; however, we believe that we have given everything that is sufficient. Those who desire more will find ample in Ginzel to fill them. It goes without saying that we have endeavoured to **supplement it with regard to more recent work.**

We have also focused on the other parts of this volume, especially on the historical lists, both civil and ecclesiastical, **by having several of them assisted by highly qualified specialists.**

As it stands, we deliver this book to the public in the hope that it will be useful to them. We know it imperfect, we could improve it over time; but neither the public warned by an announcement that promised him for 1950, nor the friendly instances, not to say pressures, of M. Lemerle, initiator and director of the *Treatise on Byzantine Studies*, allow a longer delay: *eichyxr*, (5T'iivoc. If we notice gaps, inaccuracies or errors, let us remember that the science of times is one of those where it is easiest to make mistakes: Εὐείχτοδov 7r;z 4 ckp.a.p-riocv Tri aypt, **and remember that we are ready for all the corrections of which we will be shown the validity,** in accordance with the word of the wise: 0-(,)-, :-/p i'AT;0E:ç.7.C.', ./2!

Paris, 21 November 1956.

V.G.

PERIODICALS, COLLECTIONS AND BOOKS

MOST OFTEN CITED

I - PERIODICALS AND COLLECTIONS

<i>BNJ</i>	<i>Byzantinisch-Neugriechische jahrbücher</i> , Athens.
.....	<i>Byzantion Byzantion</i> , Brussels.
<i>CIG</i>	BÆCK, <i>Corpus inscriptionum graecarum</i> .
<i>CRAI</i>	<i>Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres</i> , Paris.
<i>DACL</i>	<i>Dictionnaire d'archéologie chrétienne et de liturgie</i> , Paris.
<i>EO</i>	<i>Echos d'Orient</i> , Kadikiy-Bucharest-Paris.
<i>JGR</i>	Zachariae VON LINGENTHAL, <i>Jus graeco-romanum</i> , I-VII, Leipzig, 1866-1884.
MANSI	MANSI, <i>Conciliorum amplissima collectio</i> .
<i>MGH</i>	<i>Monumenta Germaniae Historica</i> , Berlin.
<i>OCF</i>	<i>Orientalia christiana periodica</i> , Rome.
<i>PG</i>	MIGNE, <i>Patrologia Graeca</i> , Paris.
<i>PL</i>	MIGNE, <i>Patrologia Latina</i> , Paris.
<i>PO</i>	GRAFFIN-NAU, <i>Patrologia Orientalis</i> , Paris.
<i>RB</i>	<i>Revue biblique</i> , Jérusalem-Paris.
<i>RE</i>	<i>Real Enzyklopädie</i> de PAULY-WISSOWA-KROLL, Stuttgart.
<i>REB</i>	<i>Revue des Etudes byzantines</i> , Paris.
<i>REG</i>	<i>Revue des Etudes grecques</i> , Paris.
<i>ROC</i>	<i>Revue de l'Orient chrétien</i> , Paris.
<i>V V</i>	<i>Vizantijskij Vremennik</i> , St. Petersburg, Moscow.

II. — BOOKS

CHAIINE	M. CHAIINE, <i>La chronologie des temps chrétiens en Egypte et en Ethiopie</i> , Paris, 1925.
DULAURIER	E. DULAURIER, <i>Recherches sur la chronologie arménien</i> , t. I : <i>Chronologie technique</i> , Paris, 1859.
GARDTHAUSEN	V. GARDTHAUSEN, <i>Griechische Palciographie</i> , Leipzig, t. II, 1913.
GINZEL	F. K. GINZEL, <i>Handbuch der mathematischen und technischen Chronologie</i> , Leipzig, Bd I, 1906; Bd II, 1911; Bd III, 1914.
GIRY	A. GIRY, <i>Manuel de diplomatie</i> , Paris, 1894; réimpr., 2 vol., 1925.
IDELER	L. IDELER, <i>Handbuch der mathematischen und technischen Chronologie</i> , Berlin, Bd I, 1825; Bd II, 1826.
JONES	Ch. W. JONES, <i>Bedae opera de tenzporibus</i> , Cambridge (Mass.), 1943.
KRUSCH, <i>Studien I</i>	B. KRUSCH, <i>Studien zur christlich-nzittelalterlichen Chronologie. Die 84 jährige Ostercyclus und seine Quellen</i> , Leipzig, 1880.
KRUSCH, <i>Studien II</i>	B. KRUSCH, <i>Studien zur... Die Entstehung unserer heutige Zeitrechnung</i> , Berlin, 1938 (= <i>Abhandl. der Preussischen Akad. der Wiss.</i> , Jahrgang 1937, No. 8).
KUBITSCHKEK	W. KUBITSCHKEK, article <i>Aera</i> in <i>RE</i> , I, 1893, col. 606-652.

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that of *The Art of checking dates*.
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- NEUGEBAUERP. V. NEUGEBAUER, *Hilfs tafeln zur technischen chronology*
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Berlin, 1897.
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1905
*Abhandl. Der Königl. Gesellschaft der W. zu
Göttingen Phil.-hist. Klasse, Neue Folge* comic bookViiI,
No. 6.
- Schwartz *Chronicon* . . .Ed. SCHWARTZ Article Chronicon Paschale In re III, 1899, col.
2460-2477.
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Part I

THE ORIGIN OF THE WORLD ERAS

TREATY OFBYZANTINE STATES,

FOUNDATIONS OF THE WORLD ERAS

Three elements have intervened in the constitution of the world eras.

First a mystical idea: the duration of the world must correspond to the six days of Creation: "A thousand years are like a day in the eyes of the Lord." The world must therefore last six thousand years, after which the sabbatical rest of eternity will come. This idée is ancient among Christians: we see it in the epistle of Barnabas (1), in Saint Irenée (2), Clement of Alexandria (3), Hippolytus (4). Clement of Alexandria and Hippolytus indicate, they seem the first to do so, that it is in the sixth thousandth anniversary that the advent of Christ is placed. They were to be led there by the long history of mankind reported by the Bible, and presented by them as a preparation and an expectation of the promised Deliverer. They both specify, but differently, as we shall see later, the date of the advent of Christ. Let us say straight away that this date, with few exceptions, was ideally crystallized in the middle of the sixth millennium, so that the year 5500 marks the separation **between the time of promise and expectation and the time of completion, either that the latter** begins in the year 5500 itself, or that it began after 5 500 years, in other words in 5501. This fact was considered essential by someographers, who maintained it at all costs; others, who were forced to deviate from it, did so as little as possible.

The second element that conditions the world eras is the chronology of the life of Christ and especially the date of his death, as at least the authors have variously released them from evangelical data. These are not strong enough to impose a common conclusion. Certainly, St. Luke provides us with a point of support by marking in the fifteenth year of Tiberius the preaching of St. John the Baptist, to which is attached the baptism of Jesus, then old, says the evangelist, **about thirty years old**. This "environ" is imprecise. To this imprecision is added another concerning the duration of Christ's ministry. The synoptic account does not suggest that this ministry included a second year, and more than one Passover, the second being that of the Passion. The account of St. John includes several Easter, at first sight three, before the last one when **he himself was immolated** on the Cross. Of these two conceptions, the second one ultimately prevailed. It is not difficult to see that the adoption of one or the other of these conceptions on the chronology of Christ, by modifying the relationships, conditions the ordinance of the cosmic chronology where it will have to fit.

The choice between these two conceptions also depends, conversely, on the date of Christ's death,

(1) *Barnabae epyist.*, XV, 4-3.

(2) *Contra haereses*, V, 28, 2-4.

(3) Jean MALALAS, X, p. 228 (ed. Bonn).

(4) In *Danielem*, IV, 24 ; ed. BONWETSCH-ACHELIS, 244-246.

and as this date is originally linked to imprescriptible data from evangelical narratives, and then to later traditions which, in turn, will appear intangible, there is a whole set that it will be necessary for chronographs to **take into account in the elaboration or modification of the cosmic** chronology, in other words of their world era.

The third element that intervenes in the creation of cosmic eras is the Pascal computus. The first concern of Christians in terms of the supputation of the times was the determination of the Easter festival. Various canons or cycles were designed to establish in advance for a renewable period the dates of the Paschal term (= 14 Nisan) commanding the celebration of solemnity. Some of them never had more than this practical purpose; but others, beyond their original purpose, had **an essential role in the constitution of the** world eras. Those of the chronographs who were at the same time computists did not believe themselves permitted or did not consider it possible to fix the age of the world without taking into account the cycle created or adopted by them. The first year of the world in fact had to meet certain conditions imposed by the movement of the stars and included in the cycle. It had to have characteristics related to the phases of the moon, the spring equinox, the solar course, the distribution of days in weeks, characteristics that were to reproduce the same after a certain number of cycles. It is easy to see that to this objective element the mystical idea will have to sacrifice somewhat.

THE WORLD ERA AND THE CHRISTIAN ERA

EARLY COMPUTISTS AND CHRONOGRAPHS

Apologists. - CLEMENT OF ALEXANDRIA. - HIPPOLYTE
 THE COMPUTIST OF 243. - THE 84-YEAR-OLD ROMAN PASCAL CYCLE
 AFRICANUS AND ANATOLE. - CLEMENT OF ALEXANDRIA AND EUSEBIUS

Apologists

It was first of all for an apologetic purpose that we applied ourselves to determine the antiquity of the world. This depth of history made it possible to mark the anteriority and, by this, the superiority of Moses and the prophets over the sages and poets of Greece. The first author to see doing so is the Jewish historian JOSIPHE. To those who allege the recent origin of the Jewish nation on the pretext that the Greeks did not speak of it, he recalls the history that he traced according to the Scriptures: it has, he says, more than 5,000 years (he begins it with the creation) (1).

Without naming this predecessor, and perhaps without knowing him, Christian apologists use the same argument. Thus, THEOPHILE D'ANTIOCHE, who, in his third book to Autolycus, entirely devoted to this problem, develops a detailed chronology of biblical history and ends it with the sum of the years of the world from Adam to Aurelius Verus (= Marcus Aurelius): 5,695 years (2). Pushed, as we see, well beyond the beginning of Christianity (Marcus Aurelius died in 180), this count of years is established however outside any relation to the chronology of Christ, either birth, preaching, Passion or resurrection. It does not therefore seem to be linked to a mystique idea, but to proceed from an evaluation or a personal interpretation of the more or less precise chronological data provided by the Bible.

CLEMENT OF ALEXANDRIA

In turn, CLEMENT OF ALEXANDRIA (t before 215) deals with ancient chronology in the same perspective (*Strom.* I, 21) and also marks the antiquity of the world, but we also find in him indications of the chronology of the Christ to which his attention has been was no doubt attracted by the Easter controversy. Clement is indeed the author of a *Ilz.p; 'iazoc*, unfortunately lost, but cited by Eusebius, the *Chronicon Paschale*, the *Sacra Parallela*, Nikephoros of Constantinople (3).

(1) *Contra Apionem*, I, r.

(2) *Ad Autolycum*, III, 29.

(3) These grouped quotations can be found in the edition of O. STÄHLIN, *Clemens Alex.*, III, 216-218.

The quotation from the *Chronicon Paschale* tells us that Clement of Alexandria placed the Passion of Christ on the 14th day of the moon, without indicating a calendar of a solar month. In his *Stromates* (I, 21), Clement gives only one year to the public life of Christ, whom he makes die at the age of 30 years (1).

As for the time of the appearance of Christ, we take from Malalas, who unfortunately refrain from quoting, that Clement, as well as Theophilus and Timothy placed it 17?) L-x-rûi

-/), Xt. ;. U.; (2). The expression is not clear, but it reflects the same mysticism of the duration of the world analogous to the week of creation. What Malalas intends to designate, in reporting this opinion, is, as we see from the context, the year 6000, where he himself places the Passion and the Resurrection of Christ. It is more than doubtful that we should see here the thought of Clement of Alexandria. It was probably in the *De Paschate* that he set out his views on this subject. In the absence of this work, we have in the *Stromates* data from which emerges the precise date that Clement assigned to the coming of Christ during the sixth millennium. Clement puts indeed 5,784 years 2 months and 12 days from Adam until the death of emperor Commodus (31 Dec. 192) and 194 years 1 month and 13 days from the death of Christ until the same event (3). This puts the Christian era of Clement (year of Christ's birth from creation) in 5590 and his era of the world (years passed from creation to our era) in the year 5591 (— i of our era), the year 5592 corresponding to year i of our era. It is difficult to know what such a chronology is related to. This is why Hozakowski made the assumption of a copyist's mistake. By replacing 5784 by 5694 we arrive at the result 5694 — 194 = 5500, the middle of the sixth millennium (4). This is a possibility, but Hozakowski's arguments for turning it into probability are based on material errors that can only be explained by a distraction of which the most minds can fall victim. We will in turn formulate a hypothesis that will be found later by the that the same principle of solution also applies to the era of Eusebius of Caesarea.

Hippolyte

With HIPPOLYTE, we are on firmer ground. It is very clearly that he teaches us that Christ was born in the middle of the sixth millennium of the world. He finds a symbolic indication of this in the dimensions of the Ark of the Covenant: it had two and a half cubicles in length, one and a half cubicles in width and one and a half cubs in height. These five and a half cubits represent the 5,500 years of the world, "at which time the Savior produced His own body, a golden ark of pure gold inside by the Word, outside by the Holy Spirit... Since the birth of Christ, it still takes 500 years to complete the 6,000 years and it will then be the end" (5). This is taken from Daniel's commentary which is commonly believed to be composed vers 203-204.

The world era in the Easter Table

The same design emerges from Hippolyte's Paschal table engraved on his statue (6). This table exposes a cycle of 112 years in 7 hekkaidékateérides, the hekkaidékateéride or *sedecennitas* being a doubling of the kateéride as to the monthly calendars, mais non as to the days of the week.

(1) Ed. SritILIN, II, 90 = PG, 8, 588.

(2) Ed. Bonn, 228 = PG, 97, 353 = A. SCHENK Graf VON STAUFFENBERG, p. 12.

(3) Ed. STÄHLIN, II, 89 = PG, 8, 81.

(4) HoztacowsKI, *De Chronographia Clementis AL.*, Monasterii, 1896, p. 20.

(5) In *Danielem*, IV, 24 ; ed. BONWETSCH, 244-246.

(6) PG, Io, 875-876; see SCHWARTZ, *Ostertafeln*; M. RICHARD, « Comput et chronographie chez saint Hippolyte », in *Mélanges de science religieuse* (Lille), 7, 1950, 237 following. We do not enter into controversy about the character of the statue, author of the Table. We retain its traditional name until there is definite proof of a new attribution.

At the end of the cycle, the Easter date must return to the same monthly calendar and the same day of the week. This cycle is infallible for the return of the days of the week, but it is very defective for the monthly calendar of Easter: it very quickly leadsto a significant deviation from the actual lunations. For example if the 14th **day of** the Easter moon in 222 **falls on a Saturday**, April 13, it will happen, 112 years later, that April 13 will surely be a Saturday but it will certainly not be the 14th day of the moon.

Hippolyte's Easter table presents the years in a purely conventional order. The first coincided with the first year of Emperor Alexander (= 222) and was perhaps chosen because of this. The actual beginning of the cycle is any year that brings the *XIV lunae* of the first lunar month (Nisan) to the same dates of week and month (Julian solar month) as at creation. What were these dates for Hippolytus? It is very difficult to know this in any way, because we are riveted by his explanation of the Paschal Table. The system that is believed to be his is as follows (1):

The first day of creation is March 25 considered the equinox. The moon, created on the 4th day with the sun, did not receive its brightness until the 5th, Thursday, March 29, in its full, on its 14th day. The initial year of the cycle must therefore present its 14 Nisan on Thursday, **March 29**. It is therefore a question of identifying this concordance (Thursday and March 29) in the Paschal Table of Hippolyte. And this will make it possible to identify which are the world era and the Christian era that are at its base. This concordance is found there twice, in the 13rd year of the 3rd *sedecennitas*, **and** in the 5th of the 7th, respectively in 266 and 322. The world era sought will therefore be a number of years which, summed with one of these two dates — I, so 265 or 321 (to be chosen), provides a multiple of 112. Among the numbers that have this characteristic, the mystical perspective where Hippolytus moves allows us **to retain only** the one that comes closest to 5,500. However, with the year 265 the number to be added together to have the nearest multiple of 5,500 is 5,447, while with 321, such a number is 5,503. This figure therefore gives us the cosmic era of Hippolytus, that is to say that for him, **5,503 years have passed before the beginning of our era**, so that the year 1 of our era corresponds to the year 5504 of his. There is therefore a difference of three years between the two, as far as the units are concerned.

The Christian era of Hippolyte, that is, the year he assigns to the birth of Christ since the beginning of the world, is in the same way. The birth of Christ, in the Paschal Table, is expressly indicated by the author himself in the second row of the first *sedecennitas*, on **April 2**, Wednesday; and this characteristic is that of the year 223. There must therefore be an interval of **112 years or a multiple of 112 years between this date and the date of the Savior's birth**. This can only be 224 (112 X 2). But this difference results in placing the Savior's birth in the year—2 AD. This puts the event in 5502 of the era of Hippolytus stated above.

These are the world era and the Christian era of Hippolytus if we start from the assumption that the Paschal moon of Creation took place, according to him, on March 29, a Thursday. This is a hypothesis, not a certainty. Can we not, in fact, assume another system that takes into account the date of Christ's birth in 5500 and whose special merit would be precisely to respect this date? Whoever the author of the Paschal Table is indeed, it is undeniable that the mysticism of the number 5,500 was imposed on him, and that he wanted to observe it, and this strictly if possible. It is possible, however, in the interpretation that we dare to move forward. It consists in lowering the traditional date by two years by stopping at the 7th year of the 7th *sedecennitas*: the recursionence cyclic with the first year of the world is then in the year 324 of our era. This gives us a Hippolyte world era of 5,501 years,

(1) According to N. RICHARD, *art. cit.*

where year I of the Dionysian era is 5502 of the era of Hippolytus. As a result, the Christian era of Hippolytus is also lowered by two years: it is the year 5500, which is precisely the year marked in the Commentary of Daniel.

The Easter date of the world's first year is April 5 on a Sunday. This day, Sunday, offers an interesting parallel with the day of Christ's Resurrection and Christian Passover. The relationship to the creation of the world of this Easter date of Sunday, April 5 can be conceived in two ways: either by placing the first day of creation on this same date, and the creation of the luminaires on the following Wednesday, April 8, the moon being then **on its xvth** day, or by placing the first day of creation in the **previous sun**reed, **March 29**, and the creation of the luminaires on the Wednesday that follows it, the moon being then on its **xth** day.

In the first case, the moon would have been created in a state of decay. This is not a major drawback: it does not in fact frighten Hippolyte's contemporaries, the

antecessores" that blames the computist of 343. **On the other**hand, one thing is to be noticed, it is that this *XIV lunae* from April 5 to year I of creation is not a **real XIV lunae**, since the creation of the moon is on the following Wednesday. The first *real XIV lunae* **is to the following** year. It is then a March 25, mystical coincidence, March 25 being in the computus of Hippolytus on the day of the Passion of Christ.

In the second case: 1^{er} day of creation 29 March and creation of the luminaires 1^{er} April, the moon is created on its **xth** day. This gives us a very interesting parallel. The 10 Nisan was the first day of the preparation of the Passover. It is on this date that the agneau intended for self-immolation was reserved. The genetic state of the moon thus responds perfectly to the legal dates concerning the Jewish Passover. In addition, we note that this same date of **April 5** is also that of the first Passover to the Exodus and also the first celebrated after the entry into the Promised Land, both according to Daniel" (see notes 4 and 9 of the Table). And it is precisely in his Commentary on Daniel that Hippolytus declares the birth of Christ in 5500. We have therefore **gathered here** on Sunday, April 5, the following parallels:

April 5: first *XIV lunae* (real) to the first year of the world;

first Passover of the Jews to the Exodus, and first Passover also after their entry into the Earth promised, image of the Kingdom of God, the Church, where one enters through the death of Christ,

the true Easter victim of Christians.

Sunday: first *XIV lunae* (real) to the first year of the world;

day of the Resurrection of Christ, and the celebration of the Passover among Christians.

In any way, therefore, that the *XIV lunae 5 April* relates to the creation of the world, either by putting the first day of creation **on the same** date, or by putting it on the previous Sunday, one obtains interesting parallels. Our preferences would rather go to the second case, where the parallels are more numerous and the first day of creation closer to the equinox, supposed at the time of March 25. I am not hiding the fact that it is with regard to the equinox that we will find the main difficulty, and probably the only one, in the system we are putting forward. He will be reproached for not putting the day of creation there. It is important here to confront the objection well, far from dodging it.

In the first place, this conception that places the first day of creation at the equinox, who can ensure that it is strictly that of Hippolytus? It was enough to place the creation at the environs of the equinox to satisfy what the genealogical narrative may suggest.

But above all, have we seen what the traditional explanation of the Table of Hippolyte leaves much to be desired? For finally, if we want to stick strictly to what the recit of Genesis suggests, it is that to the equinox is attached not only the first day of creation, but also, with the intermediate days, that especially that of the creation of the sun and the moon, the two stars having to share

also the *vuz04.spov*. It is even this day that must be recognized as an equinoxial term, since it is only then by the movement of the two stars that the ratio of duration of day and night (1) has been able to vary. What the account of Genesis still suggests is that sun and moon are created in opposition, the moon then being in its full. However, this double suggestion is contradicted in an exegesis where the first day of creation serves as an equinoxial term and where the moon is created in its cruxth day.

If in the traditional system strict conformity with what is called the genealogical narrative is not obtained, it cannot be required either from the system we propose: and one must therefore draw the conclusion that the consideration of the day of the equinox must not intervene in the problem of the era of the world to be extracted from the Table of Hippolytus, but possibly only the mystical parallels (2). In our system, parallels are independent of any relation to the equinox. In the internal system, they assume the creation of the world at the strict date of the equinox, a coincidence which we have just shown to be unfounded, having regard to the Genealogical account. The only concordance with the equinox that can and must be recognized in the Table of Hippolytus is that of the Passion of Christ, which is marked there on March 25.

I think I have said enough to show that the hypothesis we are putting forward can balance the previous system without disadvantage, perhaps even with the age of the one whose price will be recognized, to reconcile the era of the Paschal Table with the era of the Commentary of Daniel.

It is not only on the world era and the year of Christ's birth that the Paschal Table provides us with information, but also on the date of the Passion of Christ. It marks it expressly in the 16th year of the 2nd *sedecennitas*, and it is the year 253 that is the recurring year. By calculating in the same way as above, one is led to fix the great event to the year 29 of our era, and in the era of Hippolytus to the year 5530, if one sticks to the first hypothesis on the Paschal moon of creation, but to the year 5530, if one is willing to accept the second. It is worth noting here, to justify these dates, that, the birth of Christ being marked in the 2nd year of the First *sedecennitas*, and his death in the 16th year of the 2nd, Christ, in truth, had not completed his 3rd birthday when he died, since it was March 25 and he was born on April 2, but it was indeed the 31st year according to the Easter numeration. He therefore died in the year 5530 of the era of Hippolytus that we have assumed, the year 31 of his Christian era, and 29 of our era.

The World Era in the Chronicle

Having set out a new interpretation of the era of Hippolytus, I cannot dispense with confronting it with the Chronicle of which he is the author. The edition given by Bauer (3) tells us that we do not own it, at least for the most part, as it came out of the chronograph pen. This scholar distinguishes two essays, which he calls H¹ and W. The first has as guarantors the *codex Matritensis graecus 4701* and a Latin translation named by Scaliger *Excerpta Barbari*, designation that has remained. The second is represented by an Armenian chronicle from 686-687 and a Latin chronicle called *Liber generationis*, which came in two derivations, *Lib. gin. I* and *Lib. gen. II*, the first of which is consistent with the Armenian text.

(1) This conception is that of PSELLOS, which puts precisely at the equinox the creation of the sun and the moon. See Gertrude REDL, *Chronologie appliquée de Michel Psellus*, in *Byz.*, 4, 1927-1928, 216-217. It is also that of BÉDE, which places the equinox on the day of the creation of the two stars (*De temporale ratione*, 6 = JoNES, 192-193).

(2) Eventually, that is to say if we hold, known it is probable, that Hippolytus sought such rapprochements.

(3) Hippolytus Werke. Vierter Band: Die Chronik hergestellt von Adolf Bauer, durchgesehen und herausgegeben... von Rudolf Heim, Leipzig, 1929; 2nd edition, 1955, without change for the substance, but with regrettable suppression of the *Anhang: A renaissance Chronik vom Jahre 686/687*.

In the Chronicle of Hippolytus, which includes various elements, we will examine here only those that go about us, namely: i) The description and calculation of the times for patriarchs, judges and kings: we will reserve for him below for convenience the name of *Synagogè*, **although this is the very title of the whole chronicle**; 2) The calculation of the times for Easter, which we will name *Apodeixis*, of

7rEp; . ro;5 ll c'haza. (in the *capitulatio* of *Matrit.*) or 'zp4v(ov -king jH dcere (on the statue of Hippolyte).

Let's first look at the *Synagogè*. The beginning of it has been preserved in Greek in the *Matrit.* Unfortunately, this precious witness developed genealogies only until the dispersion of the peoples under Phaleg. The *Excerpta Barbari*, **who continue them and** frequently presents **sums of years since Adam**, have also drawn from sources other than Hippolytus, so that it is not possible to recognize with security the work of our author. This, apart from the Greek part, preserved by the *Matrit.*, is mainly reconstituted thanks to the *Liber generationis I*.

It is from him, corroborated by his Armenian parallel, that derives, in the final analysis, the chronological system attributed to Hippolytus. This system is based on the sums of years from Adam that he nous provides and that he leads up to the very time of the chronograph and, more precisely, until the date of composition of his work, stated as follows: 13rd year of emperor Alexander and 5,738 since Adam.

The previous sum of years since Adam is 4,842: *Adam-Captivity*. The distance between *Captivity* and *Alexander's 13th year* is distributed in three intervals: i) *Captivity-Birth of Christ*: 660 years; 2) *Birth of Christ-Passion*: 30 years; 3) *Passion-13th year of Alexander*: 206 years. These same intervals are also given by the Armenian chronicle, but without the final sum since Adam: 5,738. As for the *Liber gen. II*, he provides as the last sum of years since Adam that which stops at the Captivity: 4,841 (not 4,842) without subsequent sums or interests. But in *the Apodeixis*, it marks 5,500 years from Adam to the birth of Christ. The *Liber gen. H*, very short, offers only two more sums of years since Adam: *Adam-Flood*: 2,242 years, and *Adam-Phaleg*: 2,773. It is therefore impossible to verify its calculation.

It is different with *liber gen. I*. Although the particular totals given do not agree with the actual totals, nor with the various sums of years since Adam, there is nevertheless a perfect agreement between the latter and the intervals marked to separate them. The only exception is for the adam-phaleg interval, **stated 2,771 instead of 2,767**, indicated by the *Matrit.* and Armenian. But it is obvious that it must be attributed to an overly intelligent copyist who wanted to conform to the text of the Septuagint by attributing 434 years to Eber instead of 430, without realizing that he distorted the grand total. The number of 2,767 **must therefore be restored**. We can thus verify the accuracy of the intervals in relation to the sums of years since Adam.

Years since Adam		Intervals	
Adam-Flood	2,242	Adam-Flood	2,242
Adam-Phaleg	2,767	Flood-Phaleg.....	525
Adam Abraham	3 383	Phaleg-Abraham	616
Adam-Joshua	3 ⁸⁸ 4	Abraham-Joshua	501
Adam David	4 ³⁶ 4	Joshua-David	4 ⁸⁰
Adam-Captivity	4 ⁸⁴ 2	David Captivity	47 ⁸
Adam-Birth of Christ	5 ⁵⁰ 2	Captivity-Christ	660
			<u>5,502</u>

This number 5,502 can mean either the sum of the years elapsed *before* the birth of Christ, or it can refer to **the very year of Christ's birth**. It is this last mode that corresponds to the traditional era of Hippolytus 5503 (5504 = I of our era; birth of Christ 5502 (= 2 BCE). But for this, it is necessary that the first term of the list: 2,242 is also understood as an ordinal number, designating the 2,242nd year since Adam, which makes 2241 *before* the flood.

This world era is not only established, given the previous observation, by the sums of years and intervals marked in the Chronicle, but is seen as a counter-test in the final date 5738, 13rd year of Alexander. This 13rd year being 234-235 AD, we obtain indeed by subtracting 235 from 5738, the same era 5503. As it is also drawn from the Paschal Table by the assumption that the **first day of the creation of the world was** for Hippolytus on March 25, julian equinox, the Chronicle and the Table lend each other mutual support to authenticate the world era of 5503 as being that of Hippolytus.

What can we say about this? Before answering, let's turn to 1^a A-76h-C. itc_i 7r.z.p. 'mû' Hour, to see **the list of Easter** with the time intervals that separate them. This list is kept by the *Liber generationis*. As the Paschal Table indicates the same Easter, we have here, thanks to the calculation of recurrences, a very precise means of control for the chronology and the era of Hippolytus. We can leave aside the calculation of Easter according to Daniel, indicated in the Table, since, despite the difference in dates, the final result is identical (1).

The Easter intervals provided by *the Liber gen. li*, compared with those of the Table, give no results and thus manifest a corrupt text. The *Liber gen. I* offers perfectly concordant intervals, except for one, which differs by one unit, namely CVIII, instead of CVII required by the **Table and which must be corrected**. Such an accident is understandable in the transmission of texts.

The intervals of Easter, going back from the birth of Christ to the Exodus are as follows (2):

563, 107, 113, 864, 41

The total is dei 688. It comprehends the number of years from the Passover of the Exodus (this one counted) to the Passover of the birth of Christ (not counted).

To this sum, *the Apodeixis* adds adam's intervals to the Exodus: *Adam-Flood*, 2,242 years old; *Déluge-Abraham*, 1 141 years old; *Abraham-Exodus*, 430 years old. The total is 3,813. Adding the two sums, from Adam to The Exodus and from Exodus to Christ, we have 5,501 (= 688 ± 3,813), which we mean 5501 BC. This puts the birth of Christ in 5502, which leads to **the world era of 5503**. It is therefore still this same world era that we meet from whatever side we turn.

However, let's take a closer look. First of all, we will have noticed the difference of a unit that there is between the total of the years of Adam until Christ in the *Synagogè* (= 5,502) and the total for the same terms in *Apodeixis* (5 self). The same era 5503 can only be obtained through a difference in interpretation, the first total meaning **the very year of Christ's birth**, and the second, the number of years, elapsed **before that birth**. This is a crack in the traditional system. Certainly, preference must be given to *Apodeixis*. In this document indeed, the distance *Exodus-Birth of I.-C.* is guaranteed by the **mathematical certainty** of the recurrences of the Table, and the *Adam-Exodus distance* is based on the most assured tradition of the stages which

(i) This is what Mr. RICHARD explained very well in his very useful article, "Computing and chronography at saint Hippolyte"), *Mélanges de science religieuse*, 7, 1950, see p. 252-253.

(2) For these intervals, see p. 13 below.

stake it out: *Adam-Flood*, 2,242 years old; *Déluge-Abraham*, 1 141 years old; *Abraham-Exode*, 430 years old. These numbers, moreover, are also those of the *Liber gen. I*. But it results at the same time as the editor of the *Liber gen. I*, to lead to a different result, a pu and had to misunderstand, here or there, in the evaluation of intervals and sums of years.

Let's continue the examination of *the Apodeixis*. The total of the intervals between Easter, 1688, having already been established, it is the other total, *Adam Exodus*: 3,813, which must beed. The control consists in finding out how the particular intervals, *Adam-Flood*, *Flood-Abraham*, *Abraham-Exodus* are to be understood, that is to say, to which intervals put into figures the stated terms are to be related. We do not want to make pure suppositions here, but to proceed only taking into account the text of Hippolytus the most assured and received authentic.

And first, the *Adam-Flood interval*: 2,242. Should we stop this number of years before the flood or include the very year of the cataclysm? Let's ask the *Matrit*. He tells us that the flood took place Y° years after Noah, aged 500, had begotten Shem, and when he was 600 years old; and a little further, that Shem, having 100 years, begot Arphaxad the second year after the flood,

∴ •-;u7é--p orZY-TY. Y.X¹Jap.. (°)V (1). This information is also found, with the same expressions, in the *Liber gen. I* itself (2). It can and must be regarded as an original fact. The precision it contains clearly indicates that the flood took place in the 100th year of Shem and the 600th of Noah. It is, moreover, as for the date of the flood, that of the Bible itself, which says that Noah entered the ark in the 600th year of his life (*Gen. VII, 1*) and that he came out of it the year 601e (*Gen. VIII, 13-14*), after remaining there for a year and ten days. It follows that the number 2,242 which corresponds to the 600 years of Noah must be understood as being the year 2,242nd since Adam: hence the number of years of the world before the flood is 2,241, not 2,242. This way of understanding the date in question is not isolated. It is that of George the Syncelle who, to date the flood, expressly uses the ordinal number: 2,242nd year of the world and 600th of Noah (3). The *Chronicon paschale*, with the difference for the year of the world, uses the same way of speaking: "The flood took place in the 100th year of Shem, the 600th of Noah and the 2,262nd of the world (4). And here is a much older testimony, which can be related to the end of the Me or the beginning of the Ive century. It is found in the Prologue de la *Supputatio romana : Ab origine mundi usque ad cathaclismum cum ipso tempore diluvii DCCXLII*. This period therefore includes the flood. And the next period begins after the flood. This is also what the rest of the text specifies: *A Noe, postquam de archa exivit, usque ad Abraham fiunt anni mille centum triginta. III. (sic)* (5). We give these examples to show that this way of expressing intervals is not surprising. Supported by the combined testimony of the *Matrit*. and *Lib. gen. I*, we must therefore keep certain that, according to Hippolytus, the flood took place on the year 2 242nd of the world, in other words, that it takes 2,241 years before the flood. This is a unit to be removed from the traditional era of our chronograph.

This being the case, they will have to be taken into account for the following intervals. The *Deluge-Abraham interval*: 1 141 must be understood in the sense that the first year is the one that follows the flood, and the 1 14th is the one that precedes the first year of Abraham: this is thus the 3,383rd since Adam (2,242 -I- 1 141). The same is true of the *Abraham-Exodus interval*: 430. This number represents the 430th year since Abraham; it is the 3 813rd since Adam (2,242 + 1 141 ±, 430).

(1) *Die Chronik*, 50-51 ; 2nd ed., 9.

(2) *Ibid.*; C. FRICS, *Chronica minora*, I, S; *Excerpta Barbari*, FRICK, *OP. Cit.*, 188. This text says that Noah came out of the ark in the 6th year (of his life).

(3) GEORGES LE SYNCHELLE, éd. Bonn, 39, 42.

(4) *Chronicon Paschale*, éd. Bonn, 36.

(5) KRUSCU, *Studien*, I, 228.

The next interval, *Joshua's Exodus-Passover*, poses a problem. It is 41 years old in *theApodeixis*, but 40 years old in the *Synagogè* according to all the reviews and all the derivatives. Both numbers are absolutely guaranteed, one by the calculation of recurrences, the other by the unanimity of tradition. A conciliation must be sought. The only thing we can get is to understand that the year 430th, the last of the *Flood-Abraham* interval, is at the same time the first of the *Exodus-Passover interval of Joshua*. That the very year of the Exodus is to be taken for the first of the *Exodus-Passover interval of Joshua*, this results from the way in which the following Easter intervals are counted: it appears in the ordinal number used to mark the interval between the Passover of Hezekiah and that of Josiah: *Post Ezekiah Iosias anno centesimo quarto decimo pascha celebravit* (1). The year lie is equivalent to 113 years elapsed, and this is precisely the number required by the calculation of the Paschal Table. But for the 113 years to have passed, the marked Passover must be counted at the beginning of the interval, or, in this case, the Passover of Ezekchias. This requires that the same be true for the intervals of the previous Easter: *Passover of Joshua-Passover of Hezekiah* and *Passover of Exodus-Passover of Joshua*. Thus the year of the Passover of exodus joins the last (430th) of the *Abraham-Exodus* interval and also turns into the first of the next interval, *Exodus-Passover of Joshua*. The same year is counted here twice, that is to say for two years, hence the real count for the *Deluge-Abraham* interval is 429 years instead of 430. A new unit is therefore to be re-entered in the traditional chronology of Hippolytus. The total of the years before the Exodus is thus reduced from 3,813 to 3,811 (2,241 I 141 + 429). Adding them to the 1,688 from the Exodus to the birth of Christ, we have the total of 5,499 (3,811 + 688). This is the number of years before the birth of Christ; the birth itself is in 5,500.

Here is the detail (the numbers indicate the years elapsed before the second term of each interval)

(2).

Adam-Flood (2,242nd)	2,241
D eluting -Abraham	I 141
Abraham-Passover of exodus (430th)	4 ²⁹
Passover of the Exodus-Passover of Joshua	4 ¹
Passover of Joshua-Passover of Hezekiah	⁸⁶ 4
Passover of Hezekiah-Passover of Josiah	113
Passover of Josiah-Passover of Ezra	107
Passover of Ezra-Passover of the birth of Christ	563
	<u>5 499</u>

The birth of Christ is in 5500 instead of 5502, and the world era, 5501 instead of 5503.

The objection that will certainly be made to this interpretation of *apodeixis* is that it breaks the uniformity in the way intervals are evaluated. The objection would be valid if there were another way of having the data in the presence granted. They are the ones who impose the solution.

The total of the years from the *Apodeixis* to Christ: 5,499 before Christ, contradicts the total of the *Synagogè* which is 5,502, if we count 2,242 before the flood, and 5,501, if we count the year of the flood as 2,242nd. This contradiction cannot belong to Hippolytus. He himself excluded it when, at the beginning of *theApodeixis*, he affirmed that it was another, better way of marking the

(1) *Die Chronik*, 199; 2nd ed., 117.

(2) Our table gives the numbers 113 instead of 114 (Bauer) and 107 instead of 108 (Mr. Richard), as both guaranteed by the corresponding intervals of the Paschal Table. The interval 113 also corresponds to the ordinal number 114° that is in the text. Only 107 is a correction required by the Table.

continuation and number of years since Adam: *ut uero melius ostendamus* (1). Between the two accounts, the preference must undoubtedly go to that of *theApodei: cis*, which ensure the calculation of recurrences since the Exodus and the certain text of Hippolytus for the previous period.

For the clarity of our presentation, we have not descended further than the birth of Christ. The world era of Hippolytus depends on the year in which he places this event. But *theApodeixis* continues and contains, moreover like the *Synagogè*, data that it is also a question of interpreting.

The document presents two new intervals: 1) From the birth of Christ to the Passover of the Passion: 30 years; 2) From the Passion to the 13rd year of Emperor Alexander: 206 years.

The first interval must be understood like the previous ones, that is to say: the first year is that of the birth of Christ and the last that which precedes the Passion. As for the other interval, *Passion-13⁰ year of Alexander*, the first year is cit of the Passion, but to arrive at the number of 206 years, it is necessary to include in the count the second term of the interval, something that was not done for the previous intervals since the Exodus. This change in assessment is inscribed in the chronology of Alexander that results from the Easter Table. This one marks the Passion in the year 29; the first year of Alexander who begins the Table is the year 222. The 13rd year is therefore the year 234. However, between the year 29 (Passion of Christ) and the year 234, there are only 205 years, not 206. The number 206 therefore indicates the 206⁰ year counting that of the Passion as 1.

TheApodeixis ends by marking the sum of years since Adam: *Fiunt igitur (omnes anni de Adam) usque in hu(nc diem anni DCCXXXVIII)* (2). This number is rendered according to the *Synagogè*. So here we are brought back to this date of 5738, which serves as a guarantor for the era of 5503 taken from the Paschal Table of Hippolytus.

We have above clearly set out the argument that is drawn from it for the traditional era of Hippolytus. Now is the time to answer them. It will be easy. We will simply say, at the risk of being very surprising, that the guarantee is false, that the aforementioned agreement entered this date of 5738 and the era of the Paschal Table is non-existent. Because how do we establish it? Placed in front of equation $5,738 = 13^{\text{th}}$ year of Alexander, it is emphasized that this 13rd year extends over 234 and 235. And, without explanation and, one can say, for no reason other than the need for the cause, one chooses 235. But the 13rd year of Alexander counts in the year 235 only two months and eleven days. Is that enough? Is it not obvious that, in any other case, this is not the way to proceed? But- there is **amore decisive argument**. It can be said that this account cannot be that of Hippolytus. For him, in fact, alexander's years are superimposed on the easter years, that is to say that each year of Alexander corresponds to a determined Passover. The first year of Alexander, which extends over 222 and 223, is, for Hippolytus, the year whose Passover is in 222, **and thus of the following**. The 13rd year of Alexander, 234-235, can only be the one whose Passover is in 234. The Passover of 235 belongs to the 14th year of Alexander, begun on 11 March 235. And it is indeed of Passover that Hippolytus himself speaks, very expressly, in *theApodeixis*, bringing the 13rd year of Alexander: *(a passione) autem domini usque in tertium decimum) annum imperii A(lexandri Caesa)ris ann. CCVI ser(uatum est pas)cha quod in con(memora-tionem) domini nostri Iesu Christi s(eruatur a nobis)* (3).

Having thus proved that the 13rd year of Alexander corresponds to the year 234, the era that results from the year 5738 (= 234) can only be 5504 (5738 — 234), thus in disagreement with that of the Paschal Table, 5503, which it was supposed to guarantee.

(1) *Die Chronik*, 198 (*Lib. gent. II*); 2nd ed., 116.

(2) *Ibid.*, 201; 2nd ed., 118.

(3) *Ibid.*, 200-201; 2nd ed., 118.

What then to think of this year 5738, which does not concordant neither with the 13rd of Alexander, nor with the total of the years of *theApodeixis*, **can not be** of Hippolyte? How to explain it? The most natural solution is that the data belongs to the editor of *liber gen*. The latter will have wanted either to make an addition of the intervals which did not exist, or to check the one which already existed and which he had in front of him. But he will have, in his work, considered the materiality of the numbers expressing the intervals without taking care of the way ~~in which they meant them, a way sometimes wrapped up, but which with more attention he could have drawn up~~. Specifically, he did not consider whether the first term, or the second term, or both, should be included in the interval count, as the case may be. He treated the ordinal number, 114th year, as a cardinal number, 114 years. Bauer also made this mistake. And he committed the others as well. In short, the old calculator did not behave differently from the modern critic; or rather, the modern critic, believing he was doing well, walked in the footsteps of the old calculator. Bauer was the victim of a mirage. He believed that the date 5738, being a contemporary data, marked the very era of Hippolytus. And he went from there to reconstruct his "chronological system" (1). But the number 5,738 has no other meaning ~~here than to be the total of an addition~~. The point is to examine how it was made and from whom it comes, from the author himself, or from a later editor.

It was easy to show above how, sticking to the assured text of Hippolyte, it was necessary to understand the intervals of *theApodeixis*. One cannot control so completely the intervals of the *Synagoge* (*Liber gen. I*). Some points are acquired: 1) In the first interval, *Adam-Flood*: 2242, **it must be understood that the** cataclysm took place in the year 2242^{ce}. 2) In the last interval: *Passion-13th year of Alexander*: 206 years, these are the two terms that must be entered; **the year 13 of Alexander is the 206th since the Passion, the latter being counted**. For the rest, it must be assumed that at interval joins, the last year of the previous period was also counted as the first of the next. I would like to refer to two cases in which this may have happened. The first concerns the *David-Captivity* interval followed by the *Captivity-Christ Birth* interval. It is suggested to me by the different way in which the sums of years from Adam to captivity in the *Liber gen* are marked. *II* and the *Liber gen. I*. In this one, the sum is 4,842 and 9 months, but in this one it is 4,841. This difference may well come from the fact that David's first year will have been counted twice in the *Liber gen. I*, first *comme* last of the previous period, *Joshua-David*, then *comme* first of the next period, *David-Captivity*, which has the effect of adding one year to the total since Adam: 4,842 instead of 4,841.

The other case could be at the junction between the interval *Captivity-Birth of Christ* and the interval *Birth of Christ-Passion*. Here, it is the year of the birth of Christ that could be counted twice. We see indeed that the *Liber gen. I*, which puts 4,842 years and 9 months from Adam to Captivity, gives 660 years of interval between Captivity and the birth of Christ. The *Liber gen. II*, for whom the first interval is 4,841, does not indicate the second; there is enough appearance that it must have been 660 for him as well. But then, like the *Liber gen. II*, in *theApodeixis*, puts 5500 years from Adam until the birth of Christ, it is necessary, for the account to be correct, that the 660 years begin with the first year of captivity and understand as last that of the birth of Christ. This is counted again as the first of the interval *Birth of Christ-Passion*.

By these operations, which cannot be described as arbitrary, since they have a beginning in our texts, the sum of years of the *Synagoge* from Adam to the birth of Christ joins that of

(1) *Die Chronik*, 386-392; 2nd ed., 193-196.

PASCAL TABLES OF 112 YEARS: HIPPOLYTE AND PSEUDO-CYPRIAN

(according to Mr RICHARD, *Mél. de science rel.*, 1950, p. 242-243)*We restore the rank of the years of the second table*

I. - PASCALE TABLE OF HIPPOLYTE

	I	Ii	Iii	Iv	V	Vi	V I I
I April 13 Emb.	Vii 222	Vi 2386..	V 254	Iv 270	Iii 286	Ii 302	I 318
he April 2	Iv 223 ¹	Iii 239	Ii 255	I 271	Vii 287	Vi 303	V 319
Iii 21 March bis.	I 224 ²	Vii 240	Vi 256 ⁸	V 272	Iv 288	Iii 304	I i 320
Iv April 9 Emb.	Vii 225 ³	Vi 241	V 257	Iv 273	Iii 289	Ii 305	I 321
V March 29	Iv 226	Iii 242	Ii 258	I 274	Vii 290	Vi 306	V 322
Vi March 18	I 227	Vii 243 ⁶	Vi 259	V 275	Iv 291	Iii 307	I 323
Vii 5 April bis. Emb.	Vii 228	Vi 244	V 260	Iv 276 ⁹	Iii 292	Ii 308	I i 324
Viii March 25	Iv 229	Iii 245	Ii 261	I 277	Vii 293	Vi 309	I 325
Ix April 13 Emb.	Iii 230	Ii 246	I 262	Vii 278	Vi 294	V 310	Iv 326
X April 2	Vii 231	Vi 247	V 263	In 279	Iii 295	Ii 311	I 327 ¹⁰
xi 21 March bis.	Iv 232	Iii 248	Ii 264	I 280	Vii 296	Vi 312	I 328
Xii April 9 Emb.	Iii 233	Ii 249	I 265	Vii 281	Vi 297	V 313	Iv 329 ¹¹
Xiii March 29	VI I 234	Vi 250	V 266	In 9,82	I I 298	I I 314	I 330
X IV March 18	Iv 235	Iii 251	Ii 267	II 283	Vii 299	Vi 315	I 331
XV 5 April bis. Emb.	Iii 236 ⁶	Ii 252	I 268	Vii 284	Vi 300	V 316	Iv 332 ¹²
Xvi March 25	Vii 237	Vi 253 ⁷	V 269	Iv 285	Iii 301	Ii 317	I 333

I	II	III	Vii
1. rENEEIS	5. EEAPAE KATA	8. IHEOTE	10. EE0A0E
8. EZEXIA	AANIHA KAI EN		11. ENEPHIVISI
9. MEEIAS	TH EPHMC		12. EEAPAE
10. EE0A0E	6. EZEXIAE KATA	I v	
KATA	AANIHA KAI	9. IHEOTE	
	IS2EEIAE	KATA AANIHA	
	7. II.A.00E XT		

II. - PASCALE TABLE OF THE COMPUTIST OF THE YEAR 243

	I i	Iii	Iv	V	Vi	Vii
I 12 April Emb.	II 241	I 257	VI 273	V 289	Iii 305	II 321
April 1	VI 242	V 258	III 274	II 290	I 306	I 322
III 21 March	III 243	II 259	I 275	VII 291	VI 307	V 323
IV 8 April bis. Enib.	II 244	I 260	VI 276	VI 292	V 308	Iv 324
V 28 March	VI 245	V 261	III 277	III 293	II 309	I 325
VI 17 March	V 246	IV 262	II 278	II 294	I 310	I 326
VII 5 April Emb.	II 247	I 263	VI 279	VI 295	V 311	Iv 327
VIII 24 March bis.	VI 248	V 264	IV 280	III 296	II 312	I 328
IX 12 April Emb.	V 249	IV 265	III 281	II 297	I 313	VII 329
X April 1	II 250	I 266	VI 282	VI 298	V 314	IV 330
XI 21 March	VI 251	V 267	Iv 283	III 299	I 315	I 331
XII 8 April bis. Emb.	V 252	IV 268	III 284	II 300	VI 316	VII 332
XIII 28 March	II 253	I 269	VI 285	VI 301	II 317	Iv 333
XIV 17 March						
XV 5 April Emb.	2:):)	270	IV 286	302	318	I 334
XVI 24 March bis.		271	III 287	303	319	VII 335
		272	V II 288	304	320	IV 336

of the *Apodeixis* and puts this event in the year 5500; hence the world era of Hippolytus, the date of birth being for him two years before our era, is 5501.

This era is precisely in line with the one that, by a new hypothesis, we have identified from the Paschal Table and set out above. And as it agrees with the assertion of Hippolytus in his Commentary on Daniel, that Christ was born in 5500, we have here a *funiculus triplex* very difficult to break.

It remains to the old hypothesis its internal harmony by which March 25 is at the same time vernal equinox, first day of the world and date of the Passion: triple beginning and parallel bien mysticalworthy of Hippolytus (I). But she can no longer avail herself of the authority of the Chronicle. It is the new hypothesis which, with no less attractive parallels, now receives this support.

THE COMPUTIST OF 243

The Paschal Table of Hippolytus is a coherent construction, governed by inflexible rules. His calculation, absolutely regular for the return of the same day of the month to the same day of the week every 112 years (since it also takes place every 28 years: $28 \times 4 = 112$), is, as it stands, very defective for the prediction of easter lunations, which was the desired goal. Did Hippolytus believe thatokaterid was a perfect cycle bringing back the *Easterian XIV lunae* every eight years to the same monthly date? We dare not think so, and we imagine that his Explanation of the Table must indicate a regular means of readjustment. In any case, the rigorous application of the Table leads to a gap so marked that after six years the Easter date was already one day ahead of the course of the moon. It was about three and a half days old, when, some twenty years later, another computist, referred to as PSEUDO-CYPRIEN, whose work was completed in 243, applied exactly the same system, bringing it into line with the contemporary course of the moon (2). This development led to the disruption of all the concordances established by Hippolytus. And first of all, it commanded a new starting point for the creation of the world. Against the "antecessores", for whom the moon had been created in decay, the computist, referring to the genealogical account of the creation of the sun and the moon on the 4th day, specified for the moon that it was created full, on its 15th day, March 28, credi me. We should therefore find in the table of the computist a *XIV lunae* on March 27. Now, there is none, and on March 28, which, at creation, sees the 15th day of the moon, receives in the table the 14th. This is an anomaly that absolutely prevents us from looking for that it could be the global era of our computist. Perhaps he did not have one. Nowhere, in any case, does he insulate any indication of this, and his chronological calculations on the Old Testament have no continuity until Christ until the Exodus, the area between the two events covering 1548 years. It is enough for our author to be able to admire the mystical concordance between the creation of the sun, March 28 on Wednesday, and the birth of the Savior also on Wednesday, March 28. It is by cheating, moreover, or by inconsistency, that he obtains this last date, since he draws it from his place in the *XIV lunae*, while at the creation, he puts the 28 March in the *XV lunae*.

In the absence of a global era in our computist, we will be able to find at least the date of Christ's birth in relation to our era. It has indeed 215 years from the Passion of Christ to the consulate of Arrianus and Papus (= 243), which puts the event in 28 (243 — 215) of our

(1) See, however, above our reservations about the equinox of creation.

(2) PSEUDO-CYPRIEN, *De Pascha computus*, éd. Hartel, C. S.E. L., t. 40, Vienna, 1871, 248-271; see M. RICHARD, *art. cit.*; G. OGG, "The Tabella appended to the Pseudo-cyprianic De Paschate Computus in the Codex Remensis", in *christianae*, 1954, pp. 134-144; ID., *Die Pseudo-Cyprianic De Pascha Computus, translated with brief annotations*, London, 1955.

era. And because he gives 31 years to the Life of the Savior, it postpones his birth to the year —4 of our era, where indeed March 28 was a Wednesday.

This is the same result as the computist's table. According to him, the year of the consulate of Arrianus and Papus (243) is placed third in the first *sedecennitas*, which has its *XIV lunae* on March 21. And it is this data that allows us to include our author's cycle in a real chronology and to use the analogous information he gives us about the birth of Christ. However, we see that it places it in the 13rd place of the sixth *sedecennitas*. The alignment of dates from 243 leads us for this place to the year 333. Between this date and the birth of Christ, there must therefore be a number of years multiple of 112. It can only be 336 (333 ± 3) ($336 = 112 \times 3$). This is 336 years before 333. The birth of Christ is therefore to be placed in the year —4 of our era, to March 28, as it was said above.

We have seen that our computist places the Passion of Christ in the year 28 of our era. How did he get there? In this problem, a preliminary data was required, dominating all symbolisms, namely, the Passion took place on a Friday. By giving Christ the same number of years as Hippolytus, that is to say by making him die in the 31st year according to the Easter numeration, our author was to be led to put the Passion in the year 27 of our era. The *XIV lunae* was then precisely a Friday. But the year 27 was the 13rd year of Tiberius, or the 14th counting the 2nd from the first January that followed the advent. It would therefore have gone too obviously against the evangelical data that puts the beginning of the public life of Christ in the year 15 of Tiberius. The next *XIV lunae* falling on a Friday presented itself in the year 30 of our era, but it would have been necessary to give three years to the public life of Christ. If the computist refused, it is because he had to be convinced of the contrary. In the interval between year 27 and year 30 he had no choice. In the year 29, the *XIV lunae* fell on a Monday; in 28, it fell on a Thursday; he was cornered there, and forced to use it. To get out of embarrassment, he fixed the Passion of Christ not on the very day of the Passover, *XIV lunae*, but in the next day *XV lunae*, and the Resurrection in the *XVth lunae*. This is the first time that such a position has been encountered. That year, the *XV lunae* was April 9th.

Christ therefore suffered the Passion on April 9, 28 AD. It was, according to the Easter count, the 32nd year of his life, the 31st having been completed 12 days ago. It was the 14th year of Tiberius, the 15th counting the 2nd from the first January after the advent. The computist says, however, that it is the 16th. I imagine that it must have counted after the legal Easter, the first Passover being that of the year in which Tiberius became emperor, although this event was later (August 19), and the 15th Passover being that of the year 28. But this Passover being on April 8, and the death of Christ being the 9th, he believed he could allow himself this difference to judge the end of the Easter year and place this death the 16th year of Tiberius, the one that was to know the 16th Passover. Tout this is a little torn and reflects the embarrassment where had necessarily to lead a system based on a cycle as imperfect as the *oktaétéridique* cycle.

THE ROMAN CYCLE OF 84 YEARS

The need to readjust the *Hekkaidékaétéridique* cycle at intervals close enough to conform it to the true state of the moon condemned it to failure. Another table was established whose existence was made known to us by the Carthaginian computist of 455 and the author, Augustalis, under whose name it is designated (*laterculus Augustalis*) (I). It indicated the Easter for 200 years, from 213

(1) The treatise of the anonymous computist *De Ratione Paschae*, first known from a very bad edition of MURATORI, was edited with the greatest critical care by Br. KRUSCH, who also devoted valuable explanations to it. See the text in KRUSCH, *Studien I*, 279-297. The passage concerning Augustalis is p. 289-290. On the table of Augustalis, see KRUSCH, *op. cit.*, 5-23; SCHWARTZ, *Ostertateln*, 63-66; C.W. JONES, *Bedae opera*, 15-16.

to 312, and was built on a cycle of 84 years, 16 years being added to complete the century.

The 84-year lunar cycle is based on the 28-year solar cycle, which regularly brings the same day of the month back to the same day of the week. Three cycles of 28 years ($3 \times 28 = 84$) roughly equal 1 039 synodic months, i.e. 84 solar years equal 84 lunar years increased by 924 days (84×1). The cycle therefore includes in addition to the 12 regular lunations of each year, 30 lunar months intercalary plus 24 days ($924: 30 - 30$, rest 24), in other words 31 months minus 6 days. To gain these 6 days that the moon has too much, it is necessary to distribute 6 jumps of the moon in the 84 years of the cycle. This was done differently, either by dividing 84 into 7 sections, with jumping from the moon at the end of each section (grade 12), except at the last, end of the cycle, or by dividing the 84-year-olds into 6 sections, with jumping from the moon at the end of each section (grade 14). Victorius points out these two modes. It seems that PAugustalis used the former; at least this is what the indications of the Carthaginian computist suggest (1).

The cycle of 84 years, Roman creation, is characterized by the indication, on January 1st, beginning of the calendar year of Rome, of the age of the moon and the day of the week. These elements order each year the date of the Easter festival. But which year to choose as the first of the cycle? Augustalis took the year 213 because in this year the XIV Easter *lunae* fell on March 25, the day that following Hippolytus he considered to be that of the Passion. As there is no cyclical correspondence between the year 213 and that of the Passion, which the computist places 186 years earlier, the year of the Passion cannot be a beginning of such a cycle. The indices for January 1 of the first year of the Augustalis cycle were *luna XIX* and Friday.

The date of composition of the *laterculus Augustalis*, or at least, its date of reception by the Roman Church must be placed in the last third of the III^e century, when it was well established that the cycle of 12 years was not viable. The *laterculus* ended in 312. It was continued in two forms: one, obsessing with the centenary number; and the other, modelled on the 84-year cycle. The first form is used by the Chronograph of 353 (2) and probably also by Agriustia (3). The Chronograph presents a table of one hundred years beginning the same year in which that of Augustalis ends. Critics agree that the original writing of this document ends at 354 and that the list of Easter (355-412) that immediately follows belongs to another author (4). Parallel to this sequence, there is another, different one, in the *Vat. Reginae* 2,077 (5), which contains the Easters from 354 to 437, a whole cycle of 84 years, of which the last 10 years are a later addition. Despite the efforts of Krusch and Schwartz, the complete light is not yet shed on the relationship of these various pieces to each other, and also with the next one that we are going to talk about.

This is the other form of continuation of the *laterculus Augustalis*, the one where the Paschal Table is measured on the duration of the cycle. This Table, unlike that of Augustalis that dominates the memory of the Passion, takes its beginning in relation to elements of the computus. It was started either with the year in which the 1st day of January falls on the first day of the week, the moon being then on the x^{lle} day, or with the year in which the 1^{er} January coincides with the new moon. These two modes are represented in the documents, the first by a cycle starting in 299 (6), the second by a cycle starting in

(r) For Krusch, this is the second mode observed by Augustalis; it is fought by Schwartz. W. Jones, without discussion, follows the Krusch system (see references to the previous note).

(2) Edition of Mommsen, *Chronica minora*, I GH, Anet. Antiq., IX), 13-148; the List of Easter, 62-64; study by KRUSCH, *Studien* I, 65-75.

(3) I, the information on Agriustia is provided by the computist of 455: KRUSCH, *Blotties* I, 290 sq. See KRUSCH, *ibid.*, 23-30; SCHWARTZ, *Ostertafeln*..., 60-64.

(4) KRUSCH, *ibid.*; SCHWARTZ, *Ostertafeln*..., 4r; W.C. JONES, *Bedae opera*, 25-26.

(5) See Mommsen, *Chronica minora*, I, 739; KRUSCH, *Studien* I, 75-80; ed. SCHWARTZ, *Ostertafeln*..., -42.

(6) Cod table. Ambros. H 150 inf., edited by KRUSCH, *Studien* I, 236-239. See *ibid.*, 37-39, 56-57; SCHWARTZ, *Ostertafeln*..., 43-

in 298 (1). It is this last cycle that was in use at the time of St. Leo I, as seen by a letter from Paschasius to this pope, where he uses a *supputatio romana* whose beginning is in 382, thus succeeding an earlier cycle beginning in 298 (2).

The interesting problem for us is whether a global era started from the 84-year cycle, and on what scale that cycle was. Among the various anonymous or known authors, authors or theorists of a cycle of this kind, I see only two that indicate an era of the world. One is the author of a preface to an 84-year cycle, preserved in the Cologne Ms. *Dombibliothek* (3). He began his cycle at the creation of the world, the moon having been produced on March 25, Wednesday, at its xive or xvth day. The first Hebrew Passover takes place after 45 full cycles and begins on the 46th. After 65 cycles, there are 5,460 years in the world. The year of the next cycle is that of the Passion of Christ. It took place in 5531, the 16th year of Tiberius, under the consulate of the two Gemini, on March 25, Friday, moon XV. The manuscript which has this preface does not have the corresponding Easter table. Krusch identified this with that presented by the Ambrosianus H 150 inf. It should be noted, however, that the clues given in this table in the first year of the cycle (*XIV lunae*, April 2, Sunday) are quite other than those read in the aforesaid preface for the first day of creation. We will find these in the year Io of the Ambrosian Table. This year is therefore the starting point of the real cycles that serve the computist to measure the age of the world. It is to the year Io of this table that the first year of the world should correspond cyclically. However, in the scale used, the year Io falls in the year 308 AD. The year of the world will therefore be the one which, added together with 308 - will form the multiple of 84 closest to 5 500. This number is 5,489 (5,489 \pm 307

5,796 = 69 x 84). The year 71 after the 65th cycle will therefore be the 71st starting from the year Io of the Ambrosian Table, i.e. the year 80 of this table. The *XIV lunae* is then march 29, which is far from account. A single year of the table offers the concordances announced for the Passion, the year 56 (47th starting from the oe). It indicates: *XIV lunae*, March 24, Thursday; hence the Passion, Friday, is to March 25, *XV lunae*. This year, however, cannot be retained, it would put the Passion in 5467 (47th year after the 65th cycle), contrary to the Preface which places it in 5531. This date requires that the year 71 be retained after the 25th cycle (80th in the table). His data for the Passion, we have seen, are not those of the Preface. This anomaly makes us assume that originally offered the same dates as the table: April 3, *XV lunae*, and that on April 30 we will have replaced in the following the common date of March 25. The *XV lunae*, unchanged, would be a vestige of the old text.

We will therefore remember that the world era assumed by the Ambrosian Table and its Preface is the year 5489 BC: the year that corresponds to it by recurrence is the 10th of the table: 308, 392, etc.

The Christian era that is part of it is deduced from the year of the Passion indicated in the Preface: 5531. This era is 5500 and is accompanied by the short chronology of the life of Christ (4).

The prologue of the Cologne manuscript, in its present state, dates from 395. It does not have to be the primitive state. The history part of the document does not contain any documents after the

(1) KRUSCH, *Studien I*, 248. See the table reconstructed from 298 to 382, *ibid.*, 62-64, and continued until 417, in SCHWARTZ, with indication of the historical dates of the feast in Rome and the dates of the feast according to the Alexandrian computus.

(2) KRUSCH, *Studien I*, 248. We mention only for the record the Zeitztable, where the Roman computus of S. ans receives modifications that bring it closer to the Alexandrian computus. According to the fragments that have remained, it contained at least 5 cycles of 84 years, the first of which began at the Passion (= year 29). Offered to Pope St. Leo, it does not seem to have been taken into consideration by the Roman Curia. On this cycle, see KRUSCH, *Studien I*, 226-229; SCHWARTZ, *Ostertafeln*, 70-72.

(3) Edited by KRUSCH, *Studien I*, 227-235. It is the preface of the cycle whose beginning is in 298 (Ambrosian table). See edition of the table itself p. 236.

(4) KRUSCH, *Studien f*, 231.

persecution of Diocletian. However, events such as the conversion of Constantine and the Council of Nicaea must have appeared with the hindsight of time in 383 considerable enough that one would expect to see them recorded then after the others. This applies especially to the first for an author who focused mainly on noting the persecutions, of which there were six, suffered by Christians: such care must have called for mention of the great event which put an end to it and ensured the peace of the Church. The silence on this subject is significant. According to us, the document was composed in the first third of the fourth century, shortly after the end of the *laterculus Augustalis*, at the same time as the table created to replace it; and it is entirely appropriate that this table must have had its explanation, just like cellé of Hippolytus which is lost, and like that of the Ps.-Cyprian which is preserved. The copy of 395 reproduces this primitive document and merely inserted the chronological elements referring to the end and resumption of the cycle in 382 and 383 and the date of its own transcription (395) with the corresponding year of the world. This one is 5182. This number is manifestly corrupt, not only because it does not correspond to the calculation of the previous periods of which it is the sum, but above all because it is in flagrant contradiction with the author's assertion that the Passion of Christ took place in 5531.

The second computist we have announced is the Carthaginian writer, author in 455 of this precious treatise, *De ratione Paschae*, from which all our information on Augustalis and Agriustia comes. This treatise is preserved in a single manuscript, *Lucensis 490*, and Krusch gave a critical edition of it (1). It reads that the Passion of Christ is in 5500 and that 420 years, or five whole cycles of 84 years have passed since then until the end of the tenth year of Genseric, identified with 449 (2). This puts the Passion in the year 29 AD, and the year 449 in the year of the world 5920. The world era is therefore here 5472 (= $5920 - [449 - 1]$), if, as is to be believed, it is the short chronology of the life of Christ that is observed. Unfortunately, our author does not indicate whether and how these dates are related to the cycle he uses. From this cycle, it presents two *circuli* (3). One part of the Passion, year 29 of Christ, and completes five cycles before beginning a sixth in 449. The other part of the Hebrew Passover in Egypt; it has 25 cycles, or 2,100 years, completed under the consulate of Theodosius II (16th) and Faustus (438 A.D. J.-C.), and began a new cycle in 439. Neither of these *circuli* is in cyclical correspondence with the year of the world. On the one hand, indeed, 5500 (year 29 AD) divided by 84 gives as rest 40: and on the other, 5909 (438 AD), divided by 84 gives as rest 29. There must, however, be a year in these *circuli* that responds to the first year of the world. Try to get it out. The computist places the creation of the moon on March 28, Wednesday, on its fifteenth day. In the *circuli*, the year that presents these data is 473 (444th of the Passion, 2,134th of the Exodus). However, it does not fit cyclically with the era of the world 5,472, since 473 added with 5,472 gives 5,945, whose division by 84 leaves as remains 65. That being said, we come to wonder if 5471 is indeed the true era of our computist. As this era depends on the date of the Passion set in 5500, it is the problem of this date that is at stake, and more precisely, the problem of the purity of the text in this place. The findings we have just made are a serious reason to doubt this: they lead us to assume a gap in the elements of the date. Which one? That is to be determined. By removing ourselves from the current text, the way is clear for this. This amounts precisely to seeking the true global era of the computist. To achieve this, we only have to go back to the year 473, the year which, in the *circuli*, presents the clues required for the first year of the world: creation of the moon on its fifteenth day, Wednesday, March 28. Applying the usual operation for this purpose, the world era will be the number of years close to 5,500, which, summed with 473 — t, namely 472,

(1) KRUSCH, *Studien* I, 279-297; study, 138-188.

(2) *Ibid.*, 289.

is a multiple of 84. This number is 5,492 (472 $5.492 = \text{-----} 5.964 = 71 \times 84$). " The Era " World of the Carthaginian computist is therefore stated 5492 BC, the year 5493 being the year I of the Dionysian era. His Christian era is quite close to it. We know, in fact, that he puts the Passion of Christ in the year 29 of our era. Adding 5,492 with 29 we have 5,521; therefore, because we assume that the author observed the short chronology of Christ's life, the birth must be placed in 5491 (5521 — 30). Now let's go back to the computist's text about the date of the Passion. We have just seen that its computus leads to put it in 5521, that is to say after 5520 elapsed. This supposes as a gap, after the words *Anni V millia quingenti*, the number *viginti* **gap that makes quite easy under the pen of a copiste** the similar ending of the two numbers.

One may be surprised by such a date which stands out from the strict mysticism of the number 5,500 for the birth of Christ. Our answer is that such a gap is not isolated. Panodorus in the East, already put the **birth of Christ in 5494** (see below). And, in the West, we see the chronograph of 452 put the Passion in 5525 (1), and *the Origo Generis humani* put it in 5510 (2). Such deviations can only be explained under the requirements of a cycle.

A curious coincidence to note is that the era of 5492 to which the cycle of the Carthaginian computist leads is the same, and as for the year, and as for the day of creation, as that of Annianus created a few decades before.

The result of this examination of the 84-year cycle and the eras derived from it is rather modest. The computists of this cycle, in general, do not always mark these expressly. Alone, the author of the preface of the Cologne manuscript counts in cycles from the creation to the **Passion of Christ**, and consequently marks a world era. For the Carthaginian computist, we have indications only from the Exodus, and, according to another beginning, from the Passion. The global era of 5492 is the era of the cycle. " The eras based on the cycle of 84 will not survive. However, they had to be mentioned because they are yet another example of the influence and important part of the lunar cycles in the constitution of the world eras.

" This influence and this "importance, which appeared in the West as early as Hippolytus, was also recognized early in the East, with Africanus and Anatole, and, even more anciently, with Clement of Alexandria, according to the hypothesis that we will form about him.

AFRICANUS AND ANATOLE

Sextus Julius AFRICANUS composed in the first third of the III^e century a Chronography, or description of the times, which he led to the consulate of Gratus and Seleucus (221 Ap. J.-C.). Only fragments remain. We do not know whether it contained **year** Easter table similar to that of Hippolytus, which would have made it possible to establish with accuracy and without all dispute what his world era and his Christian era were (3).

Africanus began his Chronography with Adam and gave six millennia to the duration of the world, including 3,000 years until the death of Phaleg (4), and 5,531 until "the parousia and resurrection of Christ" (5). " He Put the Birth of Christ in the Middle of the Sixth "millennium, in 5500 (6). But here a clarification is necessary. Such a conception, in its greatest rigor, requires that the 5 500 years be over and that the coming of Christ take place not in 5500, but at the beginning of 5501. And

(1) C. FRICK, *Chronica minora* I Lipsiae, 1893, 181.

(2) *Ibid.*, 152.

(3) H. GELZER, *Sextus Julius Africanus und Die Byzantine Chronography*, Leipzig, 1880.

(4) H. GELZER, I, 34, 67.

(5) GEORGES LE SYNCHELLE, ed. Bonn ⁶¹⁴.

(6) *In.*, 616.

that is how africanus' position should be understood. Indeed, George the Syncelle, who tells us that Africanus places in 5500 the divine Incarnation, recognizes that it is in accordance with the apostolic tradition (i). He only blames him for making a mistake of two years by putting in 5531 the Passion of Christ.

The apostolic tradition is certainly the one that George the Syncelle intends to follow, so that to properly interpret the date of Africanus, it is necessary to know how this same date is explained by George the Syncelle. Now this one tells us expressly that "the year 5500 being completed on 28 Phamenoth, March 24, and the year 5501 beginning on 29 Phamenoth, March 25, the sixth month after the announcement to Zechariah and the conception of the Prodomé, the archangel Gabriel was sent to the holy and glorious Virgin to bring him the announcement of the salvation of the world and eternal life. This was the beginning of the 181st year of the 532-year period (2). It is therefore also at the very beginning of 5501 that it will be necessary to place the Incarnation of the Savior according to Africanus.

Consequently, one will have to treat in the same way the testimony of the Syncelle concerning the date of 5531 given by Africanus to the Passion and the Resurrection of Christ. It will be necessary to hear it of 5531 years elapsed and to carry the august event to the beginning of 5532. This is the date attributed to Africanus for the Passion by the Barhebraeus *chronographs* (E. W. Budge, 1932, trans., p. 49) and Michel le Syrien (ed. Chabot, I, 142). There is therefore no need to put their testimony in opposition to that of the Byzantine chronograph, once well understood.

As for the world era of Africanus, it is obtained by the relationship he establishes between the era of the Olympiads and the imperial chronology for the year of the Passion. This event took place, according to him, the 16th year of Tiberius and the Olympiad 202, 2 (3). These concordant data carry the Passion in the year 31 AP. J.-C., as Gelzer indicates (4). It is worth noting here a point that this scholar has neglected: it is the concordance of this dating with the lunar day of the Passion of Christ indicated by Africanus. The latter puts this event on the eve of the Passover of the Jews, which they celebrate, he recalls, the *XIV lunae* (5). The day of the Passion was thus the *XIII lunae*. This does not leave only surprising, because the previous tradition put the Passion in the *XIV lunae*. This position can only be explained by the dependence of a lunar cycle. However, the year 31 corresponds to the second year of the cycle of Anatole whose Passover (*XIV lunae*) is on March 24. In this year 31, March 24 was a Saturday, hence the day before, Friday, jour de la Passion, was the *XIII lunae*. It is therefore likely that Africanus already knew the cycle described by Anatole. We will come back to that later. Let us remember, to deduce the world year, that the Passion of Christ took place, according to Africanus, in the year 31 of our era. Since, as we have seen, it is in 5532 begun that he places Parousia (Passion and Resurrection of Christ), we see that the year of the world, after 5500, advances by a unity on the Dionysian era, hence the world era of Africanus is 5501 BC. J.-C.: his year probably starting at the equinox, namely the equinox of Ptolemy (March 22), which is that of the cycle of Anatole. The year 5501 of this era = i AV. J.-C.; 5502 = i AD, etc.

Julius Africanus should probably be joined by ANATOLE OF LAODICEA (6). Although there is no text where it appears that Africanus related his era to a cycle, and no text that shows Anatole drawing an era from his 19-year cycle, however the era of one and the cycle of the other come together, the cycle of Anatole leading by retrograde revolutions to the world era of Africanus.

(1) GEORGES LE SYNCELLE, *ibid.*

(2) *Ibid.*, 596.

(3) *Ibid.*, 612.

(4) GELZER, *op. cit.*, I, 48-49.

(5) GEORGES LE SYNCELLE, 610.

(6) See next chapter.

It is therefore likely that the latter observed the same cycle as Anatole and perhaps he is the initiator of it. It should also be noted that among the historical dates that remain of Africanus there is that of 5472, number exactly divisible by 19, and this date has for him, living in the orbit of Alexandria, a considerable importance: it marks the end of a world, since it is the end of the independence of Egypt by the Roman conquest (1). It can be assumed that because of this the chronograph annotated this coincidence with the end of a cycle.

CLEMENT OF ALEXANDRIA AND EUSEB

It should be noted that in the eras examined above the mystical date of the birth of Christ, 5500 or 5501, does not occupy the beginning of a cycle, whether that of 112 years or that of 84, or that of 19, or even that of 16 or 8, if one solves that of 112 in its elements. But are there not other eras that would have assigned to the birth of Christ a beginning of the cycle that is at the same time a beginning of the century? We ask the question because the affirmative answer would make it possible to elucidate two eras that seem strange at first glance, that of CLEMENT OF ALEXANDRIA, which we have already talked about, which places the birth of Christ in 5590 and that of EUSEBIUS, giving for this event the date of 5199 (2). Their very strangeness makes us suspect that they actually represent another era of which they are the altered form.

We have as a starting point the information of an anonymous Armenian author, quoted by E. Dulaurier (3). This author blames a certain Irion or Iron of Constantinople, a computist of Justinian's time, for counting 5,500 years from the origin of the world until the birth of Jesus Christ, and for not conforming to the deep investigations of Eusebius and Andrew. These have a different system, but, for our anonymous, it is Andrew who is in the right by counting 5,600 years until the birth of Jesus Christ. Eusebius' calculation is unfortunately not indicated, but it is expected to be a centuries-old number like the other two.

The André in question is the author of the bicentenary cycle begun in 353. It is difficult to admit that this computist could have advocated this 5,600-year count, despite the authority of Hippolytus and Africanus and probably also that of Anatole and especially that of 19-year reformed cycle (see below) that he employed, if he had not had to rely on an earlier authority that surpassed them or at least counterbalanced them. And this is where we bring in Clement of Alexandria. We remember that the text of the *Stromates* marks 194 years from the birth of Christ to the death of Commodus, and 5,784 from the creation of the world to the same event. By correcting a letter, one would have 5,794, which would take 5,600 years ($= 5,794 - 194$) from the creation of the world until the birth of Christ. Why this number of 5,600 instead of 5,500? Probably because it meets the 8-year cycle, of which it is a multiple, and the centenary multiple number closest to the middle of the millennium. Thus the naissance of Christ would have its place in 5601, both at the beginning of a century and at the beginning of a cycle.

This would therefore be the era of Clement. We would not make this assumption without the testimony of the existence of such an era.

The case of Eusebius is perhaps even stranger. For what can such a small difference mean between 5199, the year marked by the birth of Christ, and 5201, the beginning of the following century? First of all, it should be noted that 5,200 is a multiple of 8, and the first in a century-old number which is

(x) *PG, Io*, 88 AB. Africanus was originally from Jerusalem, but probably lived in Alexandria, which provided him with the necessary documentation for his work.

(2) EUSEBIUS, *verse de saint Jérôme*, ed. HELM, 169, 173-174.

(3) DULAURIER, 59, 61.

present in the sixth millennium. We then assume that there existed before Eusebius an era of **5,200** based on the lunar cycle of 8 years and matched with the short chronology of the life of Christ. In this era, the year 5201, that of the birth of the Christ, is both the beginning of the century and the beginning of the cycle. The short chronology was to carry the Passion of Christ to the year 5231. This is precisely the one that Eusebius presents equivalently in his chronicle. But, as Eusebius inaugurated the long chronology and gave a little more than three and a half years to public life, he was in need of the need to postpone the date of his birth. It will have done so by moving as little away from the centenary number as possible. We see, in fact, that he only moves back two years the date of Christ's nance and that he compensates for the rest by diminishing the hidden life of Christ that he has completed in his 30th year. Thus can be explained that the Christian era of Eusebius is 5199 instead of 5201.

CHRONOLOGY OF THE LIFE AND PASSION OF CHRIST

IN THE FIRST THREE CENTURIES

Authors of the first three centuries who express a feeling about the duration of Christ's life, and especially, or implicitly, about that of his public life, generally speak out in favour of a brief chronology including a year of public life. saint Irénée is the only exception that we know: with him the long chronology with three years of public life is extended beyond the forties and one can believe that such an exaggeration has harmed his authority in this matter (1). Thus **short chronology** initially dominated both in **the East and in the West, longer in the West than in the East, since it was still traditional enough in the eyes of** Victorius of Aquitaine that he conformed his great Paschal cycle (2).

"The Present Question" is essentially related to the chronology of the Passion. This chronology has with a fixed element: Friday, two variable elements: the report of the event to the *Xiv lunae* and its report to the monthly calendar. They are inseparable, but some authors have expressed one or the other without dealing with its correlative.

The relationship of the day of the Passion of Christ to the *Xiv lunae* is variable, but in very small limits: it must be in close liaison with the *Xiv lunae* "either that the Passion took place that very day, or that it took place the day before or the next day. I will be allowed to call this for convenience the triduum of the *Xiv lunae*."

The monthly calendar has a much wider field, but in fact the possible coincidences are the only ones that allow the inprescriptible data of Friday and the narrow field of movement of the triduum of the *Xiv lunae*.

One can imagine how the Chronology of the Passion of Christ, and consequently that of his birth, or of his Incarnation, therefore the Christian era, will be diversified according to the positions taken on these problems.

Let us first see in these first three centuries, where the short chronology of the life of Christ dominates, what is the lunar calendar where the authors place the Passion.

The earliest, and arguably the most widespread, **design puts the Passion of the Savior in the XIV lunae**. It is advocated by Clement of Alexandria (3), Apollinaire of Hierapolis (4), Hippolytus (5), to whom we must probably join Meliton of Sardis, author of a treatise on the Passover that has not reached us. All these authors agree to proclaim that, at the last Passover of his life,

(1) *contra Ixer.*, II, 22: PG, 7, 784-785.

(2) KRUSCH, *Studien II*, p. 24.

(3) *Chronicon Pasch.*, ed. Bonn, 14-15 = PG, 92, 8i CD.

(4) *Ibid.*, ed. Bonn, 13-14 = PG, 92, 80-81.

(5) *Easter table*.

in the *XIV lunae*, Christ did not sacrifice and did not eat the Passover, but that he was immolated that day, being him the true Passover. This date of *the XIV lunae for the death of Christ alone explains the* quartodeciman quarrel, and the fact that it is received in points as far away as Rome, Alexandria, Hierapolis, means that it is not the specialty of the quartodecimans, whose proper was only to want to attach to it the celebration of the Christian Passover instead of reserving it for Sunday.

The date of the *XIII lunae* is that of Africanus (r). It is necessary to associate anatole of Laodicea who does not expressly pronounce himself, but whose computing leads to this result. It is very likely that it was the computus also that imposed this date on Africanus, because judging by his dissertation on the 70 weeks of Daniel, where he gives details on the duration of the solar year and that of the lunar month, and on the relationship of the lunar year to the solar year, he should not be alien to the arcana of this science.

Quant at the date of *the XV lunae* for the Passion, the computist of 243 is the first to give it, and the only one at that time (2). He is also brought there by his computus.

These are the various opinions on the Passion of Christ in his report to the *XIV lunae*. Passons to the monthly calendar of the event. There is a whole range of differences here. Clement of Alexandria mentions the following dates: 25 Phamenoth (21 March), 25 Pharmouthi (20 April), 19 Pharmouthi (14 April); he himself does not advance any opinion (3). Of these dates, which we do not know if they are related to a computus, none is possible between the years 20 and 45 OF OUR era, large scale taken on purpose.

Another date, which has made a long fortune in the West, is that of March 25, advocated by Hippolyte (4) and the *Acta Pilati* (5). It too is impossible between the years 20 and 45 AD. In the year 29, which is the year of the Passion at Hippolyte, the firstmoon was on March 18, deviation from the 25th really too sensitive to authorize this last date. Saint Epiphane reports that the fourth anniversary of Cappadocia relied on the *Acta Pilati* to celebrate the Passion on 25 March on a fixed date; on which he sought a copy and saw that the Passion was dated 18 March (6).

One will wonder where the date of March 25 for the Passion of Christ comes from. Is it based on a mystical idea or on an ancient tradition, or is it simply a consequence of computing, in this case, of the erroneous computus of Hippolytus? The mystical idea here consists in the relationship between the Passion, a redemptive event, and the Creation that was thought to have taken place at the equinox, that is to speak precisely on March 25 according to the Roman calendrier. We doubt that this mysticism is at the origin of the date. It is quite remarkable, in fact, that it does not appear in any way among the dates of the Passion attributed to various by Clement of Alexandria. We therefore see it ignored. For the same reason, it is doubtful that it comes from a so-called Roman tradition. It appears for the first time in a certain way in the Paschal Table of Hippolytus (7) and finds its sufficient origin in the

(i) GEORGES LE SYNCHELLE, ed. Bonn, 610.

(2) SCHWARTZ, *op. cit.*, 37, says that this computist does not draw the consequence that this justifies the Easter date of the XIth century of the Alexandrians, but this reflection is without significance, because they did not take this date until after their reform of the Cycle of Anatole.

(3) Ed. STÄILLIN, II, 90 = PG, 8, 888.

(4) *Easter table*.

(5) TISCHENDORF, *Evangelia apocrypha*, 211 sq.

(6) *Adv. haeres.*, 50, 1: ed. K. HOLL, II, 245-246.

(7) I cannot count for certain the testimony taken from TERTULLIEN, *Adv. Judaeos*, 8 (ed. Aem. KROYMANN, 190-285), where the date of the Passion is marked in these terms: *consulibus Rubellio Gemino and Fufio Genetio in mense Martii tempore Paschae, die octava Kalendarum Aprilium, die prima azymorum, qua Agnus occiderunt ad vespem*. The words: *die octava Kalendarum Aprilium*, separated from *mense Martii* that they determine, and inserted between *temporibus Paschae* and *die prima azymorum*, which they dissociate, all seem to be a subsequent precision passed awkwardly from the margin in the text.

unwinding of the computing. The mystical aspect could not fail to be presented to the mind afterwards, since it is considered that the Creation had to take place at the spring equinox. This design already appears in the computist of 243. But this one is driven by its calculation, as we have seen, on another date for the Passion, namely, April 9, and this also shows that the date of March 25 was not originally imposed either by mysticism or by tradition. It was later imposed, the mysticism creating tradition. It took root in the West, to the point that in the high Middle Ages, in some countries, we see March 25 erected as a fixed feast of the Passion of Christ. It is perhaps to get as close as possible to this date that Victor d'Aquitaine will have placed the Passion in the year 28 of our era, where the *XIV lunae* Friday was March 26.

The date of March 25 also found credit in the East, probably thanks to the *Acta Pilati* who were known there by various translations. The Paschal homily of 387 pronounced in Asia is based on this document (1). Saint Epiphane reports a group of quartodecimans who celebrate the Passover every year, as a souvenir of the Passion of Christ, on the fixed date of March 25 (2). It was only later, under the need to grant the chronology of the Passion to a new Paschal cycle, that the date of Christ's death was moved from 25 March to 23 **March and that** 25 March was the date of the Resurrection. This mystery, of course, in turn endorsed all the symbolism suggested by the date of the vernal equinox.

The first author of this change, of this transfer to March 25 of the memory of the Resurrection seems to be Africanus. This author marks the parousia of Christ (by which he means Passion and Resurrection) in the Olympiad 202, 2, and in the year 16 of Tiberius (3). The indicated Olympiad, starting in July, puts the event in 31. The year of Tiberius refers to the year 30. These two dates overlap with one another, but it is the second that must be reduced to the first. The reason for this is precisely the chronology of the Passion compared to the *XIV lunae* which is that of Africanus. It places it, in fact, as we have seen, in the *XIII lunae*, against the common opinion. As far as we can see, he is the first to do so. If he went to this particularity, it could not be without reason and what reason is conceivable, except that in the year in which he placed the Passion he could not find at the event of other day than the *XIII lunae*? Now, as this peculiarity, *XIII lunae* Friday, is not found in the year 30, but in the year 31, it is this last year that Africanus was to assign to the "parousia" of Christ. In this year, as we have said, the *XV Lunae*, the day of the Savior's Resurrection, was March 25.

In Africanus you must reach Anatole. We have already said, warning our presentation on this subject, that from its cycle emerges exactly the same era as that of Africanus. And as Anatole had to observe the short chronology of the life of Christ, the only one known in his time, there is every reason to believe that he also placed the Passion of Christ in the year 31 AD. In this year, the cyclical recurrences of his computus lead this event to the *XIII lunae*, March 23 (the *XIV lunae* being Saturday 24) and the Resurrection to March 25 Sunday.

The era of Africanus will be replaced, the cycle of Anatole will be modified, but, as in the West, the date of March 25 for the Passion of Christ had to survive, thanks to its mystical overload, the cycle of Hippolytus, thus in the East, the date of March 25 for the Resurrection, thanks to this same mysticism simply transposed, or at the same time applied, will survive the chronological system where it originated. It is she that in the later computus and the various eras of the East we will want to preserve.

(1) PG, 59, 745-756.

(2) *Adv. haeres.*, 50, I : K. Hou, II, 245.

(3) Quoted by EUSEBIUS, *Demonstr. evangelica*, VIII, 2 : PG, 22, 609 D.

These insights into the chronology of Christ in the first three centuries are not useless; they shed light on the paths followed later by chronographs and computists.

And now, in the early years of the fourth century, an author intervenes whose authority or reasons, or both, have enough weight to modify, at least in the East, what is the common appreciation. I am talking about Eusebius of Caesarea. Both in his *Chronicle* and in his *Evangelical Demonstratio*(*n*), he advocates for the public life of Christ a duration of three and a half years (2). Although this opinion is not always followed in its integrity (3), it can be said that from then on, it is made in the East of the short chronology. It is the long chronology, more or less long, but including from the following century at least three years, which is now required, and which chronographs and computists must therefore take into account.

(1) EUSÈBE, *Chronique*, trad. allem. by J. KARST, p. 212-213 ; *Demonstratio evangelica*, VIII, 2 ; PG, 22, 625 C. The *Chronicle* is less explicit than the *Evangelical Demonstration*: it simply marks the beginning of public life at the First Olympiad, and the Passion at the 4th. As the Olympiad begins in July, the indication of the *Chronicle* **can easily include the three and a half years**.

(2) Eusebius' estimate assumes that Christ, who died in early spring, was born around the beginning of autumn.

(3) Thus, Epiphane gives the public life of Christ two years and a fraction of a year (*Adv. haeres.*, 51, 25), K. HOLL, 295.

COMPARATIVE TABLE OF ERAS AND LUNAR CYCLES FOR THE CHRONOLOGY OF CHRIST

i. = Incarnation; *n.* = Birth; *p.* = Passion; *r.* = Resurrection

Chrét. a.	era of Hippolyte	Era of Eusebius	Lunar era and cycle of Africanus and Anatole	Alexandrian Lunar Era and Cycle	Lunar era and cycle of Constantinople
	(Recalculati on)			Panodore Annianos	Protobyzantine era Byzantine era Lunar cycle OéaLv v.. cpticrev 4
10			5492 XIX		5500 IX
9			5493		5501 X
8			5494 II		5502 XI
7			5495 III		5503 XII
6			5496 IV		5504 XIII
5			5497 V		5505 XIV
4			5498 VI		5506 XV
3			5499 VI I		5507 XVI
2	<i>n.</i> 5500	<i>n.</i> 5199	5500 VIII	5492	5508 XVII
1	5501	5200	<i>i.</i> 5501 • IX	5493 I	5509 XVIII
1	5502	5201	5502 X	<i>i.</i> 5494 II	5510 XIX
2	5503	5202	5503 XI	5495 III	5511
3	5504	5203	5504 XII	5496 IV	5512
4	5505	5204	5505 XIII	5497 V	5513
5	5506	5204	5506 XIV	5498 VI	5514
6	5507	5205	5507 XV	5499 VII	5515
7	5508	5206	5508 XVI	5500 VIII	5516
8	5509	5207	5509 XVII	5501 IX	5517
9	5510	5208	5510 XVIII	5502 X	5518
10	5511	5209	5511 XIX	5503 XI	5519
11	5512	5210	5512	5504 XII	5520X
12	5513	5211	5513 II	5505 XIII	5521
13	5514	5212	5514 III	5506 XIV	5522
14	5515	5213	5515 IV	5507 XV	5523
15	5516	5214	5516 V	5508 XVI	5524
16	5517	5215	5517 VI	5509 XVII	5525
17	5518	5216	5518 VII	5510 XVIII	5526
18	5519	5217	5519 VIII	5511 XIX	5527
19	5520	5218	5520 IX	5512 I	5528
20	5521	5219	5521 X	5513 II	5529
21	5522	5220	5522 XI	5514 III	5530
22	5523	5221	5523 XII	5515 IV	5531
23	5524	5222	5524 XIII	5516 V	5532
24	5525	5223	5525 XIV	5517 VI	5533
25	5526	5224	5526 XV	5518 VII	5534
26	5527	5225	5527 XVI	5519 VIII	5535
27	5528	5226	5528 XVII	5520 IX	5536
28	5529	5227	5529 XVIII	5521 X	5537
29	<i>p.</i> 5530	5228	5530 XIX	5522 XI	5538
30	5531	5229	5531	5523 XII	5539
31	5532	<i>p.</i> 5230	<i>p.</i> 5532 I	5524 XIII	5540
32	5533	5231	5533 II	5525 XIV	5541
33	5534	5232	5534 III	5526 XV	5542
34	5535	5233	5535 IV	5527 XVI	5543
35	5536	5234	5536 V	5528 XVII	5544
36	5537	5235	5537 VI	5529 XVIII	5545
37	5538	5236	5538 VII	5530 XIX	5546
38	5539	5237	5539 VIII	5531 I	5547
39	5540	5238	5540 IX	5532 II	5548
40	5541	5239	5541 X	5533 III	5549
41	5542	5240	5542 XI	5534 IV	5550
42	5543	5241	5543 XII	5535 V	5551
43	5544	5242	5544 XIII	5536 VI	5552

HIPPOLYTE: Creation, March 29; Birth of the Chr., April 2, Wednesday 5500 (-2); Passion, 25 March 5530 (29). - AFRICANUS: Creation, March 22; Incarnation, 5501 (-1), March 22 (?) (25, according to the Syncelle); Resurrection, 25 March 5532 (31). — PANODORE: Création, 19 March; Creation of luminaires, March 22; Incarnation, probabl. 2-2, March 5494 (1 AD); Passion, 20 March 5526 (34); Resurrection, 22 March 5527 (34). - Ai. TNIANOS: Creation, March 25; incarnation. 25 March 5501(9); Passion, 23 March 5533 (42); Resurrection, March 25, 5534 (42). — PROTOBYZANTIN: Creation, March 21; Incarnation, probabl. March 21 (the Chronist, March 25), 5507 (— 3); Passion and Resurrection, March 23 and 25, 5540 (31). BYZANTINE: Incarnation, March 25, 5506 (— 3); Passion and Resurrection, 23 and 25 March 5539 (31).

THE 19-YEAR-OLD PASCAL LUNAR CYCLE

THE ANATOLE CYCLE OF LAODICEA. - THE REFORM OF ALEXANDRIA AND THE ERA OF DIOCLETIAN. - THE REFORM OF CONSTANTINOPLE THE STARTING POINT OF THE ANATOLE CYCLE

In addition to the cycles mentioned above, other cycles were also formed; there were cycles of 10 years, 14 years, 15 years, 17 years, 30 years, both of which are known only by mentions (1). We are only reporting them, in the impossibility where we are to recognize if they have given origin to eras.

The most famous of the lunar cycles, and which ended up supplanting them all, is the 19-year cycle. Attributed to Meton who employed it, and well known to ancient pagan astronomers (2), it was adapted to the Paschal computus by Anatole, an Alexandrian, bishop of Laodicea of Syria (3).

THE LAODICEA ANATOLE CYCLE

Anatole did not leave a tableau of his cycle, at least it did not reach us, but in the extract transmitted by Eusebius, he marked the starting point that commands the whole order. This starting point, opening of the first year of the cycle, is the neomenia of **March 22**, when the sun is moving in its fourth day since its entry into the first section " of the year (divided into 12 parts). (This section begins with the sun's entry into the constellation Aries.) There can be no doubt that this 22 March does not represent for Anatole the date of the equinox. It is the one that Ptolemy had fixed in the previous century (in 140), and Elijah of Nisibe says precisely that Anatole mentioned that in his time the equinox was on the 22nd Adar (March 22nd) (4th). This is how Schwartz understood it, and it is from this that he reconstituted the Table of Anatole (5). But D. Lebedev understood it differently, namely that, for Anatole, the entry of the sun into the constellation of Aries meant the equinox, and therefore that it was on **March 19**. This difference in interpretation

(1) The *trochos* IV of *chronicon Paschale* mentions the cycles of 8, 15, 17, 18 years (ed. Bonn, p. 515); the Armenian James of Crimea mentions the cycles of 10, 15, 16 years (DULAURIER, *Recherches*, p. 65, 66). That of 30 years is attested by ÉLIE DE NISIBE (ed. CHABOT, *pars posterior*, 120 (*versio*, 126); DELAPORTE, 320). That (12 14 years is attributed to the Jews by SAINT EPIPHANES (*Haer.*, 56, 26; IIOLL, 11,297-298 = *P G*, 41, 933-936. Cf. PrrAv, *Diss. de anno et die dominicae Passionis* : *P G*, 42, 960-972). Several of these cycles could be sections of more extensive cycles, the 15-year section, 30 section (15 X 2), the 14-year-old section, the 84-year section (14 •X 6): SAINT EPIPHANY, *I.c.*, specifically attributed to the Jews an 84-year cycle, which they obtained by multiplying the 14-year cycle by 6.

(2) See our Second Part.

(3) The lunar cycle of Anatole was transmitted to us by EUSEBIUS, VII, 32: ed. SCHWARTZ, 722-724.

(4)
LIJAH OF NISIBE, -HABOT, *pars posterior*, 52 (*versio*, 73); DELAPORTE, 264. It is the same interpretation in^E
BÈDE, *De temporum ratione*, VI, ed. JONES, 192-193.
(5) Ed. SCHWARTZ, *Siela/an*, 15.

has effects in the reconstitution of the Easter Table: this one, according to Lebedev, admits dates between March 19 and March 22, namely **March 21 in the fifth year**, instead of April 20, and **March 20 in the 16th year** instead of April 18 (1). Lebedev's interpretation seems very difficult to admit, because, with it, it remains inexplicable how later astronomers and computists could, going against the already known phenomenon of the precession of the equinoxes, postpone the real equinox from 19 to 21 March, a date commonly received and virtually official in the 16th century and henceforth. We therefore remain with Schwartz's interpretation, but we wish to point out that Lebedev's **divergent Easter dates** have no bearing on our subsequent developments. — See the *Anatole cycle in the comparative table on pages 54 and 55, column I.*

The date of the equinox at the head of the cycle does not necessarily mean that Anatole wanted to mark the importance of the law of the equinox and to show his respect for it, and that this would be the reason why he wanted this beginning of the cycle, for this result would have been better obtained if the date of 22 March had concerned, not the neomeny from which results a Passover of 4 April, but the Passover itself, a neomeny of 9 March. In our opinion, there is **a purely objective reason for this place given to the neomeny of 22 March** at the head of the cycle. Anatole intended to establish his cycle on a purely natural basis, and this is announced by the astronomical precisions he brings. For him the opening of the cycle to the equinox of **March 22** results from the course of the stars as it was established at the creation. That is what we will find later. But, regardless of this, that is to say **even if** Anatole had simply marked his respect for the law of the equinox, it remains that, the equinox being a fact of natural order, it would always be true to say, in any case, that the cycle of Anatole has a natural foundation, as taking its **starting point of a natural phenomenon**, the meeting of two facts provided by nature: neomeny and equinox. But this character is much more radical if the order of the cycle thus constituted originates at creation. This is the problem of the **world era of Anatole**.

We have already said the importance of lunar cycles as part of the solution in the problem of the origin of these kinds of eras. The essential point in this is to know the date of inauguration of an envisaged cycle. The possible and proposed dates for the Anatole cycle are 258 and 277 (2). If we consider only the problem predicted by its own world era, the two dates, since an entire cycle separates them, have the same result. But the same is not true of other eras whose origin, as we shall see below, can only be explained by their dependence on one of these two dates. And that is why it is important to determine in which of these two years, 258 or 277, **the first cycle of Anatole** began. This is the second that the authors commonly propose. Thus, among others, Van den Hagen (3), Ideler (4), Dulaurier (5), Hilgenfeld (6), Rühl (7). Ginzel also seems to agree with this sentiment (8). It is also for this date that the Russian scientist D. Lebedev pronounces himself, which he does categorically (9). Alone, to my knowledge at least, Schwartz proposed

(1) D. LEBEDEV, *IZ istorii drevnich raschamich ciklov. x9-lanij cikl Anatolija Laodikijskago*, V V, 18, 1911, 148-389, spec. 201-209.

(2) In the tables of Oppolzer-Ginzel, which I quote after Lebedev, *art. cit.*, 169 (for the year 258) and 153 (for the year 277), the neomenia of March 258 takes place on March 22, afternoon, 4 h 27 mn, 3 s, and that of 277 takes place on March 22, in the night, at 0 h 43 mn.

(3) VAN DEN HAGEN, *De cyclis paschalibus*, Amstelodami, 1736, 142 sq.

(4) IDELER, II, 225.

(5) DULAURIER, *Recherches...*, 24-25.

(6) A. HILGENFELD, *Der Paschastreit der alten Kirche*, Halle, 1860, 344-346.

(7) FR. RÜHL, *Chronologie...*, 115.

(8) GINZEL, III, 233.

(9) D. LEBEDEV, *cikl Anatolija Laodikijskago*, V¹⁷, 18, 1911, 148-389, spec. 250-172; ID., *Talc nazvvaemaja vizantijskaja era» ot sotvorenija mira, Vizantijskoe Obozrénie*, 3, 1917, 1-52, spec. 18-24.

the date 258 (1). But he then retracted (2) and agreed with his predecessors, so that it can be said that unanimity is made on the date of 277. We will discuss this problem more conveniently and with more fruit when we have exposé the anatole system. For the moment, what is important to know is which year was considered by ancient computists, very close to Anatole, as the year in which the lunar cycle was inaugurated. There can be no doubt that it was the year 258. This is for several reasons. The first is the fact that Victorius reports a *Paschale Graecorum seu Machedonum*, whose beginning he places in 353 after 95 years (3). We recognize here the famous cycle of 5 x 19 years, bringing the Easter dates, except for rare predictable cases, to the same days of the week. The cycle preceding this *Paschal* of 353 began in 258 (= 353 - 95). It is not possible to assign any other reason to the choice of this year, except that it was considered as the one where Anatole avput the first beginning of his cycle. It was on Victorius' text that Schwartz voted in favour of 258. But there is other evidence that he did not know or at least not noted. Firstly, the fact that it was precisely in the year 353, after the end of the 95-year cycle, that the table of the computist André was inaugurated, which we will talk about later (4). Then the testimony of Elijah of Nisibe who situates Anatole under the reign of Gallus (5), which must obviously be identified with Gallienus. If he names this emperor among all those under whom Anatole lived, it is undoubtedly because he links to his reign the work of the computist. Gallienus was associated with the Empire by Valerian in 253, and after the latter, reigned alone from 260 to 268. The testimony of Elijah of Nisibe therefore invites, too, to place not in 277, but in 258, the opening of the cycle of Anatole.

Having said that, let us now turn to the determination of the global era of Anatole, as it emerges from its cycle. It is essential to know it, because it is from it that derive the era that we will later call protobyzantine and, through it, the byzantine era commonly known. We have said previously that Anatole could not fail to know the era of Africanus (550) and argued that the calculation based on his cycle succeeded there. That will come out of our presentation. We take as the basis of our calculation the year 258, but it is obvious that the same operation can be done, and the same result obtained, with the year 277, or any other first year of the cycle.

The inaugural year of the Anatole cycle being therefore set in 258, the world era based on this cycle should lead for the same year to a multiple of 19 plus 1 (beginning of the cycle), taking into account the birth of Christ in the middle of the sixth millennium. It will be 5757 (19 x 303) plus 1, so 5758. The world era of Anatole would thus be achieved if the first year of the cycle were also the very year of creation. That is what needs to be looked at.

We must assume here that Anatole, who established his cycle not on a conventional basis, as the Alexandrians did after him, but starting from the natural phenomenon of the equinox, must have thought, for the thing most naturally presents itself to the mind, that the sun and the moon, created together around this time of the equinox, had their parallel and equal course until the end of the lunar year, 11 days before the end of the solar year, and that thus the second solar year of creation began with a difference of eleven days of lunar epact. The first year of creation was without epacts, and it is only in the second year, the moon having since 11 days started its own course, that one can count epacts. It is this first year of the epacts that will thus be the

(1) Ed. SCHWARTZ, *Ostertafeln*, 16-18.

(2) Ed. SCHWARTZ, *Eusebius Kirchengeschichte*, III, Einleitung, p. cXLVI-CCSLVII.

(3) Cycle de Victorius, ed. KRUSCH, *Studien II*, 42. I, e term "Machedonum" is explained here by the use of Macedonian month names in the document known to Victorius. This was not the text of Anatole, where the date of March 22 is given by the names of Egyptian, Macedonian and Roman months, but the "paschal" of which Victorius marks the beginning in 353. We will indeed see that the ^-pox6ç of the cycle built on this date gives the monthly dates according to these different names.

(4) See below, pp. 44-45.

(5) ÉLIE DE NISIBE, ed. CHABOT, *Pars posterior*, 52 (versio, 73) : DELAPORTE, 264.

first of the cycle. In other words, the very year of creation and, consequently, the world era, precedes the year of the cycle by one. The year 258 AD will be, according to the era of Anatole, not 5758, but 5759. The era will be formulated as follows: 5501 BC. J.-C., the year 5502 of the era corresponding to the year i of the Dionysian era. This is precisely the era of Africanus.

In the system described here, it is clear that the distinction between the two cycles is made. The cycle would later be called 't.C.(7 ... r.p1')(3.r.v and cycle xv. U7,v. The cycle ' X.27/; ?'Jr5r.V is the lunar cycle

itself, the cycle of epacts: the first year is the year in which the epacts begin, the 19th is the maximum of epacts, namely 29. The ZW cycle, 7). OC. CP,V is the 19-year cycle aligned with the first year of the world, which was without epacts, and consequently, has the characteristic of starting with a year without epacts. Anatole must have thought of only one cycle, the cycle y_Dtz(•>.

Let us now see how all this is justified by the examination of the cycle. The problem comes down to this: it is, in the context of our explanation, to connect to the cycle the first year, precyclical, of the world, by obtaining for the genetic days concordances that are appropriate.

The first year of the world, preceding the first year of the first cycle, corresponds proleptically according to numerical order to the 19th year in the course of the enneadékaétérides, but with an essential difference. The 19th year of the enneadékaétérides includes the jump of the moon which brings to 12 the number of epacts of the following year, first of the cycle (1). This is reflected in the XIV lunae from 4 April to the first year of the cycle and from 16 April to the 19th preceding it. But the year of creation, preceding the opening of the first cycle, could not include a leap from the moon, since this only occurs at the end of a cycle. Consequently, the XIV lunae of this precyclical year can only be on 15 April, not on 16 April. With the XIV lunae of April 15, we have the XIV of the previous lunar month to March 17 of a 29-day week, starting on March 4 and ending on April 4: the first month of the moon, at creation, could indeed count only 29 days. By calculating recurrences by means of the perfect cycle of 532 years applied to the Anatole era (5758 = 257 AD), we obtain the coincidence of March 17 with a Tuesday (2). The next day, 18, is a Wednesday, the genetic day of the creation of the stars, and the moon is on its fifteenth day, in its full. Such a concordance seems likely to justify the distinction that we draw in the Anatole system between the first year of the world and the first year of the cycle. However, it is not to her that we will stop, because it is difficult to admit that she could have satisfied the computist. Indeed the creation of the stars on March 18, Wednesday, brings the first day of creation, the previous Sunday, to March 15. However, nothing marks 15 March to be the beginning of a natural year. On the other hand, we observe that the following Sunday is 22 March, which is specified for Anatole the date of the equinox. For our computist, such a day was perfectly suited to be both the first day of the natural year and the starting point for calculating the times and ages of the world. As a result, the creation of the sun and the moon will take place on the following Wednesday, March 25, the moon being in its xxlle day.

Continue. March 22, the day of the equinox, is the day when the sun begins its annual cycle. In the first year of the world, it is, as we have seen, a Sunday — a Sunday, the first genetic day. The fourth genetic day on which the sun is created is the fourth day of its cycle; it's a Wednesday. The moon, created at the same time, is in its xxlle day, of a proleptic neomenia of March 4, also a credit sea. The first lunar month, part of which is proleptic, naturally has 29 days. The two stars, at their creation, find themselves walking together, but their revolution does not have the same duration: that of the moon, 354 days, ends 11 days more tôt than that of the sun,

(r) I.e. number stated is 11, because the epacts of the previous year are 29 (not 31), which is actually 12 days of difference.

(2) I.e. calculation is established on the year 352 OF our era = 5853 of that of Anatole as no us understand it. This number divided by J32 gives t as rest.

365 days. To the following year, neomenia, 11 days earlier, is on February 21. The lunar month that then begins is, as a result of the alternation, also a month of 29 days; it therefore ends on 21 March. The next lunar month, which is pasca 1, begins on March 22. It is precisely to this day that Anatole places the Paschal neomenia of the first year of its cycle. We touch here how this first year of the cycle, by the very play of the cycle, connects to an earlier year, first of the world created at the equinox, supposes it, and is itself the second year of the world. In addition, this March 22 is a Monday. At the same time as the moon, the sun thus begins its cycle of epacts with the epact

In this system of the distinction between the two cycles, everything is harmony and cohesion. This excellence is proof of this. This is not the case in the opposite system, where the first year of the world is identified with the first year of the cycle. In the first year of the cycle in fact, the *XIV lunae* is on 4th April. In the first year of the world thus determined, April 4, according to the calculation of recurrences, falls on a Sunday. The creation of the moon, consequently, is on the following Wednesday, April 7, on its seventeenth day. April 4 and 7 are far from the equinox, and there is **nothing** to designate April 4 for computists to make it the first day of creation. We are therefore led to give a proleptic beginning to this first year of the world, namely the date of the equinox, March 22. But this date, in consequence of those of 4 and 7 April, which are Sunday and Wednesday, will be a Monday. Computists will certainly not allow the first year of the world to be counted from a Monday. These are, it will have to be recognized, serious disadvantages(t).

An objection that we will not fail to make to the system exposed by us, it is moreover the only one, it is the late age of the moon at creation, xxix day, instead of the xvi. There is also decrease, although the gap is less, in the opposite system, where the moon is created on its xviith day. Certainly, the decrease of the xxix day is much more noticeable, but this disadvantage is not extreme, because the xxix day belongs to the third quarter, and the star, before its indentation, still has a beautiful brightness.

So far, we have deliberately left aside the mystical point of view. We are producing it now. For chronographs and computists of that time, the concordances between Genealogical events and Christian events were of considerable importance and virtually put the seal on the elaborate system. We see it by the Paschal Table of Hippolytus, we see it by the treatise of the pseudo-Cyprian. Now, in the Anatole system, as we expose it, where the year of the world precedes the year of the cycle, we have one of those mysterious encounters: the day of the creation of the sun is March 25; and precisely, the cycle of Anatole leads the resurrection of Christ to March 25 (2). Nothing similar in the opposite system, where the creation of the sun is on April 7. From this presence, there, and this absence, here, of such a mystical element results an argument that is far from negligible.

The concept set out above, which makes it possible to distinguish between the first year of the world and the first year of the first lunar cycle, we certainly do not find it described in the pen of the famous computist, but one cannot do other than attribute it to him, because it emerges from the examination of the cycle, as we have just seen; and, moreover, it alone reflects the distinction of the

(1) The disadvantage of the deviation from the equinox also exists in the Hippolyte system as we have proposed it (5 and 8 April, or 29 March and 1st April), but it is compensated by the mystical concordances. It should be noted that, despite their gap from the date of the equinox, and despite the difference in cycles, the eras of the two great computists agree.

(2) Indeed, the date of Christ's death was to be for Anatole, as for Africanus, the World Father is the same, the Dionysian year 31. The year of recurrence in the cycle is 259 ($2 \times 9 - 31 = 228$; $228 = 9 \times 12$, without remainder). The year 259 is the second in the cycle and this one has its *XII: lunae* to March 24. This puts, known for Africanus, who expressly says it, the Passion of Christ "in the *XIII lunae*"), on March 23, and the resurrection in the *XI lunae*, on March 25.

cycles thus distinguished, which, precisely, as we shall see, come from the very reform of the Anatole cycle, carried out by observing its natural function.

Finally, it should be noted that this precyclical year is known to the Byzantines themselves. To explain why the Paschal date of the first year of the cycle is April 2, Psellos goes back to the lunation of the vernal equinox of the previous year, which, for him, at creation, is to March 15, the moon being then created on its xvth day (1). This precyclical year, reduced to 5 and a half months because of the beginning of the Byzantine year put on September 1st, is not counted in the numeration of the Byzantine years of the world.

THE ALEXANDRIAN REFORM AND THE DIOCLETIAN ERA

The Anatole cycle was undoubtedly welcomed with favour throughout the East, and first in Egypt, the author's country of origin. But about half a century later, it underwent an important transformation, as evidenced by the festive letters of Saint Athanasius. The latter, in fact, observes a new register of Easter seats, the extreme terms of which are 21 March and 18 April (2). This date of March 21 is noteworthy: given the rule of the equinox formulated by Dionysius of Alexandria, it means a rise of the equinoxial day. Athanasius is not the author of these changes: it uses a computus in force. It should be noted that in his *Lettres festales* the years he uses in announcing Easter are the years of Diocletian. We see by this that the reform of the computus took place in the time of this emperor. By all appearances, it is to Peter of Alexandria (300-310) that the initiative must be traced back. It is known that this archbishop wrote a treatise on the Passover of which the *Chronicon Paschale* transmitted a fragment to us (3). It is rightly dealt with the equinox, and the author reproaches the Jews for not observing it. For a better scope of the discussion, it was appropriate, it was almost necessary to determine in concrete terms this crucial element of computus, whose fixation on 22 March, beyond Anatole, dated back to Ptolemy. The scholars of Alexandria recognized that the date had to be raised by one day, and thus marked the equinox on March 21. We do not have direct information on this operation, but it must be assumed, and it is very likely that it was it that caused the cycle to be refocused. The rise of the equinox, in addition to carrying the Passover of 20 April to 21 March, was to lead, if one were faithful to the principle of Anatole, to the change in the order of the years of the cycle, of which 22 March ceased to be the point of departure. The order, indeed, was changed, but it was changed on a completely different basis. For the sake of uniformity and for the convenience of calculation, these scholars chose as their initial date the date that inaugurated the calendar year of their nation, the 1st thoth (August 29th). The new cycle was therefore built, taking as the first year the year in which a neomenia coincided with the 1st thoth. This took place in 303 (year 303-304) (4). It was the ninth year of Anatole. It became the first of the new cycle.

Another change, of equal importance, which was, moreover, a fairly natural consequence of the previous one, was that, in this new cycle, the first year was taken as a year without epacts (5), while for Anatole, the year without epacts was that of creation, corresponding to the nineteenth (6).

(1) Gertrude REDL, *La chronologie appliquée de Michel Psellos*, Byz., 4, 1927-1928, p. 217.

(2) SCHWARTZ, *Stellae III*, 24-25.

(3) *Chronicon Paschale*, ed. Bonn, I, 4-12.

(4) GINZEL, III, 135.

(5) Since the new cycle has only a conventional basis, independent of the original natural order, its first year cannot present itself as an absolute beginning, where the sun and the moon inaugurate together their course, so that it is only in the second year of the cycle that the moon counts its first number of epacts.

(6) The year without epacts is noted in the cycles by the maximum of epacts, i.e. 29 (only at the end of the cycle), or 30. Instead of the latter number, we also see o (thus in Dionysius the Little).

It was in the framework thus transformed that the seats of the *X/V luna* were established. The neomenia of the ¹ thôt brought the *Easter X/V lunae* to April 5, from a moon whose first day was March 23 (I). It is this neomenia of March 23 that will serve as a starting point for the calculation of the epacts (2).

In the new system, the basis of which was conventional (beginning of calendar year), there was no reason why the distinction or duality of the cycles *zocTà pliatv* and *X.Y.'ri/. Oéatv*. — The table of the reformed cycle is included in the comparative table on pages 54 and 55, col. II.

All that remained was to designate concretely the real years in which to situate the cyclical years. The custom being then to mark the events and to date the public acts by the years of reign, it is naturally by the years of the reigning emperor, Diocletian, that the new Easter dates were indicated. The year 303-304, the first of the Reformed cycle, was Diocletian's 20th year. It so happened that the first year of this emperor was also the first of the series of 19 years immediately preceding. Thus the 19 years of the cycle were exactly superimposed on any 19-year series of Diocletian's years. This made a perfect match between the years of the cycle and the years of this emperor. It was found convenient after the end of the reign to continue to announce Easter after those same years. We saw that Saint Athanasius did it. The process made it possible, by the simple division of such a year of Diocletian by 19, to know, by means of the rest, to which year of the cycle it corresponded. The continued use of Diocletian's years in computing was a new chronological means, which was also used to date events. This is the origin of the era of Diocletian which, later, *in odium persecutoris*, was called "era of martyrs". The era of Diocletian was already in full possession, or to put it better, in tradition, when, no doubt to supplant it, the era of the Romans was created around the year 364 (3).

Another consequence of this exact correspondence of the years of the century with the years of Diocletian was that the opening of the Reformed cycle was traced back to the first year of this emperor, so that the era and the cycle were supposed to have had the same beginning. This operation was perhaps unconscious, in the belief that the use of Diocletian's years for the Paschal computus made it seem quite naturally that it dated back to the advent of this emperor. But it is also possible that this was done from the very time of Peter of Alexandria, at the creation of the new cycle. For it would be surprising if it had not been noticed then that the first year of Diocletian corresponded to a first year of the cycle, and such an observation could lead to counting that year, by prolepsis, as the year that inaugurated the new system.

Whatever the original mode, this conception on the inaugural year of the cycle exists when Theophilus of Alexandria establishes his paschal table of one hundred years (4). This one took its starting point exactly 95 years since the first year of Diocletian (284-285). And this means both that the Alexandrian cycle, we will now call the 19-year cycle reformed by Peter of Alexandria, was also developed, just like that of Anatole, in a period of 5 times 19 years (= 95) and that the first year of the first enneadecaétérion or year of opening of the new cycle was identified with the first year of Diocletian.

The Table of Theophilus was to include in its turn, in fact, a new cycle of 95 years, plus another five years, in order to achieve the end of the century. This is undoubtedly what gave rise to the indication of Gennade touching Theophilus: *Paschalem etiam recursum, quod magna apud Nicaeam*

(1) See the tables of GINZEL, II, 556, in the years 303 and 304.

(2) Ed. SCHWARTZ, *Ostertafeln*, 14. Saint Maximus indicates as the starting point of this calculation the *ler thôt*, I'G, 19, 1272 C.

(3) On the existence of this era and the date of its creation, see below, ch. XI.

(4) Letter from Theophilus of Alexandria to Theodosius I, ed. KRUSCH, *Studien I*, 220-221.

synodus post nonaginta et quinque annos agi in tempore et die et luna secundum suum statum invenerat, additis quibusdam ipsius festivitatis rationibus et expositionibus, Theodosio principi obtulit (i). This text wrongly attributes the invention of the 95-year cycle to the Council of Nicaea, but it asserts, probably going beyond the archbishop's thought, that it is a similar cycle that Theophilus dedicated to Theodosius.

The Table of Theophilus has not been preserved, but it is possible to imagine what it was supposed to be. According to the indications of Theophilus himself in his dedication to the emperor, it presented the dates of the *XIV* Easter *lunae* and those of the Sunday Easter for a period of one hundred years. Most likely the latter were accompanied, very important element, by the age of the moon. Victorius says that Theophilus paid no attention to cycles (2), but this must be understood as cycles bringing back both the day of the week and that of the month, that is to say, those of which the Latin computist spoke previously, namely of 112 years, of 84 years, of 95 years. But the 19-year-old was surely to be marked, either expressly or by some artifice of presentation, as a layout in parallel columns of 19 years, or empty space after each group of 19 years. As for the numeration of the years, one must believe, both because of the absolute silence concerning the years of Diocletian, and because of the insistence with which Theophilus emphasizes that this table will perpetuate the name of the pious sovereign (3), one must believe, I say, that the years of Diocletian were indeed suppressed, and that only the years of Theodosius were marked, the first being that of his first consulate. In Theophilus' thought, this numeration constituted a new "pasca era" replacing that of the pagan emperor. This era was likely to take hold. She agreed with the cycle on which the century-old table was built; it was named after the great Orthodox emperor, the final victor of the Arian heresy. Moreover, it was presented by the Church of Alexandria itself, the only one that would have had reason to stick to the years of Diocletian; and on the other hand, the Roman era was too recent to have been able to constitute a tradition (4). In fact, the fortune of this Theodosian era was ephemeral. The table was not composed, and consequently its use did not begin until after 385, the date of Theophilus' elevation to the siege of Alexandria (5).

Some twenty years later, it had already been replaced in the same way that we learn from a document preserved in Armenian (6). This document is a letter from St. Cyril of Alexandria addressed to Theodosius II. It is not dated, but as the bishop praises the emperor for his triumph over heresy, there is no doubt that it should be placed after, and probably shortly after the Council of Ephesus (431) (7). This letter concerns the holy Pascha and it ends with the announcement of a Paschal table to take its departure in the year of the first consulate of Theodosius II. Unfortunately, this table has not been preserved, and we only know what the letter says about it. There is all appearance, according to

(1) *De descriptoribus ecclesiasticis*, XXXIII : PL, 58, 2079.

(2) Prologus Victorii, ed. KRUSCH, *Studien* I, 221, 9-12.

(3) "Principi in autem centum annorum primum nominis tui posui consolatum... ut legentes scilicet hoc opusculum abeant habere in memoriam tempus imperii vestri laudabili ore decantare" (KRUSCH, *Studien* I, 222, 9-22). "Oportebat enim sub beatis temporibus vestris divine pasce divinae paschae, certissimus dies in Alexandrina Ecclesia diligenter examines repperiri, ... ut ex his quae (= quae) leguntur et ad presens et ad futurum ex hoc opusculo nominis vestri memoria sempiterna permaneat" (*ibid.*, I, 221, 13-18).

(4) See chap. XI.

(5) THÉOPHILE marks in fact in the subscription his quality of bishop: Piissimo... Theodosio Theophilus episcopus ecclesiae Alexandrinae, *ibid.*, 220.

(6) F.C. CONYBEARE, *The Armenian Version of Revelation and Cyril of Alexandria scholia on the Incarnation and Epistle on Easters*, London, 1907, 220-221.

(7) G. MERCATI, *Theologische Revue*, 6, 1907, 126-127, places the composition of Cyril's letter and Paschal table between 422 (ordination of the archbishop) and 427 (end of the lunar cycle where the reign began). But the allusion to the victory over heresy is then explained with awkwardness or water much less well, and moreover it is difficult to believe that Theodosius II, still so young — he was born in 402 — then had enough smugness to put himself above his illustrious ancestor.

this one, that Cyril did not act by own initiative, but only deferred to a desire of the sovereign. The latter, the day after the Council of Ephesus gathered by him, the first ecumenical after that of Nicaea (1), will have judged that his name, more rightly than that of his ancestor, was worthy to appear forever in the splendor of the great Christian solemnity. A one hundred-year table would initiate and ensure this perpetuity. This was the measure taken by Theophilus for Theodosius¹. Theophilus had started his table with the year of the emperor's first consulate. It was also the year of the first consulate of Theodosius II that was chosen for the starting point of the new table. This year was diocletian's 119th (403 AD). It did not coincide with the beginning of a cycle: it took four years. Cyril pointed this out in his letter. And he declared that since the custom was always to transcribe the entire 19-year cycle, he had been forced to start the table earlier. For the same reason, of course, he was finishing the current cycle after the hundred years. In his table, the four years preceding the year of the aforesaid consulate (403) were simply written, but not counted. The numeration began with this year of the consulate and the number of years counted from then on was 1 Io. So there were a total of six 19-year cycles (4 --, - II 0 - - 114 -- 6 x 19), embracing the years 399-512. This table was to include the same elements as that of Théophile. The only difference was this. In addition to the imperial years (here those of Theodosius II from 403), it was undoubtedly necessary, in order to manifest the cycles of 19 years, to mark, certainly in lesser relief, the years of Diocletian from 399 to 512.

This is Cyril's table. It is not, as we can see, a revision of that of its predecessor, but a simple transposition into another century-old framework, to which, because it was outside the cyclical system, it was necessary to add internal and posterior margins, so that the whole contained only complete cycles.

There is another Paschal table called Saint Cyril, 95 years old, known especially thanks to Dionysius the Little (2). At this table is an introduction whose title is *Prologus sancti Cyrilli* (3). Taken as a whole, it is certainly a fake, as Krusch has well established. It does, however, contain the essential elements of an older document, which C. W. Jones discovered in the manuscript of Chartres 70 and which he published (4). The title is *Praefatio sci Cyrilli epi*. The final paragraph bears a date, namely the consulate of Asterius and Protogenes (449 AD). This paragraph, which is defective in transmission, is not easy to interpret (5). The editor's exegesis is unfortunately based on corrections to the text which are far from justified. The meaning that seems to us to emerge most naturally is that in this year 449 which cyclically brings back the date of the Passover of Christ, fifty years have already passed for which it is not necessary to raise the computus; this will be done only for the forty-five years that remain. It is clear, from the total of 50 - 45, that the translator counted of the 114 years of Cyril's table only 95 years establishing the great cycle of enneadecaéterides. which? The answer is in the number 50. This one is not explained

(1) That of 381 (in Constantinople) was not then considered ecumenical.

(2) Voir le libel of Dionysius the Little to Petronius, ed. KRUSCH, *Studien. II*, 63-68.

(3) See the edition of KRUSCH, *Studien I*, 337-343, and his dissertation concluding inauthenticity, *ibid.*, 93-98.

(4) C11. W. JONES, *Beda's opera de temporibus*, 40-43.

(5) Here is the text, comme gives it the author (p. 43): "anno CCCC^o and. X0 [XX] consolatus auferri (asterii) et protogenis circulis ipse ad caput redit, id est a pascha quod salvator noster cum discipulis suis celebravit, qm. [quem], ut arbitror, competens [ecpletum] est. reddita iam ratio l, xlv annorum paschae dies quibus kal., ds [nonis], vel idibus et cota luna occurrat [-avenu: ti, ex ordine cauculemus". And here is the advanced translation: "In the year 420, the consulate of Asterius and Protogenes, the cycle returned to its start, that is to the Pasch which our Lord observed with His disciples, which, I believe, was complete. We shall calculate in order when the table has completed fifty years, for the Easters have occurred for forty-five years according to Kalends, Nones, and Ides, and according to the age of the moon. The manuscript was destroyed with the entire depot in the last world war, which makes any control impossible.

although if we make it start in 399 to end at 449 (not included) ($449 - 399 = 50$) (1). Cyril's table started from 399; consequently the five enneadékaéterides counted by the translator are the first five of this table, including **the years** 399-493. And the date of 449 is the date of the translation. The translator announces that he will give the dates of Easter by their monthly calendar according to the Roman calendar (kalendes, nones, ides) and by their lunar calendar. This transposition of Egyptian days from Cyril's table into Roman days was a long and tedious task; it is conceivable that the operator, who apparently was only aiming for an immediately practical purpose, considered it useless to impose it on himself **for the fifty years of the cycle that had already passed and wanted to present only the Easter** of the remaining forty-five years. As for the years of Diocletian and Theodosius II contained in Cyril's table, it is very likely that the translator abandoned them and that he took **all numbers only of the table itself**, starting it at the year 51, marked by the consulate of Asterius and Protogenies.

This is the first state of Cyril's table in Latin translation. It is not the one known to Denys the Little. The Cyrillian table which this author deals with must have been written very shortly after the one we have just talked about, no doubt at the time of the Passover which was to take place in 455. We see that Pope Saint Leo is already concerned about it since the year 451 (2). The supporters of the Alexandrian computus, either Orientals anxious to make it appreciated and accepted in the West, or Westerners already conquered by the perfection of the system, felt the need for a detailed table of 95 years in Latin writing. It began with **the ongoing enneadékaéteride**, whose first year was 437. For this purpose, the unseated part of Cyril's table was used **for the remaining** portion, 437-512, comprising four enneadékaéterides. For the last (513-531), the second enneadékaéteride of Cyril (418-436) not yet represented was used. All of Cyril's information was reproduced there, including the years of Diocletian whose numbering was applied until the last enneadékaéteride. As for the years of Theodosius II, which did not coincide with that of the cycle, we had no need of it; they were abandoned as they were probably already in the translation of 449. All considered, there was therefore reason or appearance of reason to consider this cycle of 95 years (437-531) as the work of St. Cyril himself and to leave it under his name (3).

It was this table that Dionysius the Little used when he was commissioned in 526 to revise the computus of the Roman Church. As it ended in 531, Dionysius established a similar series of five enneadékaéterides from 532. He preceded them with the last **Cyrillian** enneadékaéteride corresponding to the years 229-247 of Diocletian (513-531). He modelled his five enneadékaéterides on those he had in front of him, with all his elements, with the exception of the years of Diocletian whom he replaced by the years of Christ (4).

And this is how the Anatolian cycle of 19 years, in its Alexandrian transposition and in the Cyrillian form, entered the West, where it finally, after more or less long resistance, was received universally.

(1) On the contrary, the publisher sells the 45 years and places in the future the other 50 years, the 45 years starting in 437, beginning of the 95-year cycle, and ending in 482, a year which includes a date discussed. I do not see how this interpretation can be accorded with the text. On the one hand, indeed, in *iani reddita ratio I*, the terms *reddita* and *iam* **push** the 50 years into the past, and on the other hand, it is impossible **to attach the verb** *cauculemus* **to another** complement than *dies paschae xlv annorum*.

(2) KRUSCH, *Studiin I*, 255-257.

(3) There is no evidence that Cyril himself thought of establishing a cycle of 95 years, as such, but it was with his enneadékaéterides that the one that received his name was built.

(4) Ed. de KRUSCH, *Studiin II*, 69-74.

THE CONSTANTINOPLE REFORMATION

The Alexandrian reform was not the only one received by the deceemnovennal cycle of Anatole. Half a century later, there was another, which does not give it to him in importance.

But first we have to present and examine a very valuable document, which shows us, as it were, the prelude. Preserved in a Manuscript of Verona (cod.60) among the pieces of the Council of Sardique, it was discovered by Schwartz and published by him in 1905 ⁽¹⁾. We give the content in the attached table by a compagnant of the years of the Anatolian and Alexandrian cycles, as well as the Dionysian years that correspond to them.

THE 30-YEAR PASCAL CYCLE CREATED IN 343

		Jewish dates	Dates Christian	Anatole cycle	Alexandrian cycle
Indict. 1	I (328-358)	March 11	April 10	Xiv	Vi
	II (329-359)	March 30	March 30	XV	Vii
	III (330-360)	19 March	April 18	Xvi	Viii
	IV (331-361)	8 March	April 7	Xvii	Ix
	V (332-362)	March 27	March 27	Xviii	X
	VI (333-363)	March 16	April 15	Xix	xi
	VII (334-364)	March 5	April 4	I	Xii
	VIII (335-365)	March 24	March 24	Ii	Xiii
	IX (336-366)	March 13	April 12	Iii	Xiv
	X (337-367)	March 2	April 1	Iv	XV
	XI (338-368)	March 21	March 21	V	Xvi
	XII (339-369)	March 10	April 9	Vi	Xvii
	XIII (a40.-370)	March 29	March 29	Vii	Xviii
	XIV (341-371)	March 18	April 17	Viii	Xix
	XV (342-372)	March 7	April 6	Ix	
Indict. 1	XVI (343-373)	March 26	March 26	X	Ii
Here stop the dates					
	XVII (344)		April 14	xi	Iii
	XVIII (345)		April 3	Xii	Iv
	XIX (346)		March 23	Xiii	V
	XX (347)		April 11	Xiv	Vi
	XXI (348)		March 31	XV	Vii
	XXII (349)		April 19	Xvi	Viii
	XXIII (350)		April 8	Xvii	Ix
	XXIV (351)		March 28	Xviii	X
	XXV (352)		April 16	Xix	xi
	XXVI (353)		April 5	I	Xii
	XXVII (354)		March 25	Ii	Xiii
	XXVIII (355)		April 13	Iii	Xiv
	XXIX (356)		April 2	Iv	XV
	XXX (357)		March 22	V	Xvi

It is known that the Council of Sardique dealt with the Paschal question and that it reached an agreement on the practical plan between Rome and Alexandria for a period of 50 years, The document we are talking about is a table of Paschal dates (*XIV lunae*) of 30 years accompanied by a table of Jewish Paschal dates of 16 years. It comes from the group of bishops who had seceded and had

(1) Ed. Schwartz *OSTeriatebt*, 122-123.

gathered in Philippopoli. The intention was indeed to provide a definitive solution to the Easter question by means of a new round, but also, without a doubt, to put an end to the influence of Athanasius, who had proposed the agreement with Rome.

The number of 10 years had been chosen to honor the 30 years of Christ's life. The table began at the first indiction under Constantine (328) and thus included two 15-year-old index series. The Easter date of the first year was in 10 April; that of the last, on 22 March; this one therefore called for the following year (31st) the date of 10 April, which means that the same series of dates started again and that this list of 30 years was really a cycle. It offered the precious advantage of walking with indiction and made it extremely easy to make Easter tables.

But what particularly attracts us in the Verona document is the list of Jewish Easter that precedes the Christian Easter dates. These Easter are 16 in number, from the first indiction (328) until the renewal of the indiction in 343. It is worth noting that they do not take into account the spring equinox and are all enclosed in the month of March. This usage must have been old enough; it is that Anatole is aiming for when he blames those who celebrate the Passover in the twelfth month. The Christians who followed the Jews on this point were said to be proto-Paschites and it was against them that the Council of Nicaea pronounced itself. They were precisely in the region where the Anatole cycle had naturally spread: Syria, Cilicia, Mesopotamia (1). The March dates that are after the equinox in the Jewish Easter list coincide with the Christian Easter dates. For Jewish Easter whose date is before the equinox, the correspondence in Christian dates is thirty days later in April. Taking this into account, we see that the Christian Easter observes in relation to the corresponding 16 years of the Jewish table exactly the same computus.

That said, it is interesting to compare the Jewish Paschal dates with the two cycles Anatolian and Alexandrian. For ease of reference, we transpose, where appropriate, Jewish dates into the corresponding Christian dates. Of the 16 dates, 6 conform to the Alexandrian cycle only (1 to 6); 8 conform to both the Anatolian and Alexandrian cycles (7 to 14); 2 conform to the Anatolian cycle only (15 and 16).

The first year of the Jewish list corresponds to the 14th year of Anatole; it has as its Paschal date 1 i March (10 April), while in Anatole the date is 1 i April. This advance of a unit continues until the end of the cycle of Anatole: it ceases with the *saltus lunae* which starts this cycle again and the dates are then the same until the end of the Jewish list. The last two Easter on this list are March 7 (April 6) and March 26. They differ from those of the corresponding years (I and II) of the Alexandrian cycle, April 5 and March 25, because of the intervention of the Alexandrian *saltus lunae* which raises the Paschal date to April 5. As we can see, the list of Jewish Easter, from the 1st to the 16th included, shows no *saltus lunae*. It is necessary, however, that it has if it is to join the Alexandrian date four years later. And it must join it, because the date of April II that we see in the 20th year of the Christian table is explained only by its place in the Christian cycle of 30 years where there is no *saltus lunae*.

It is clear from the succession of Easter dates which correspond to those of the Anatolian and Alexandrian cycle, either commonly or respectively, that the Jewish list was part of a cycle of 19 years, necessarily stopped on the very date of composition of the synodal document, which had to show and could only show for its purpose the Easter actually celebrated by the

(1) V. V. Botmov, in *Žurnal komissii Russkago Astronomiïeskago Obe.estva fo voprosu O reforma kalendarja v Rossii. Prilieenie V.* "Doklad "V. V. Bolotova v zasëdanii Komissii 31 maja 1899, p. 33. — D. 1, EnErw, Tak nazyvaemaja "vizantijskaja era", *Viz. Obozr.*, 3, 1917, 17-18.

Jews, not futures. The years of the cycle shown correspond to a whole indiction (328-342) and the first year of the next indiction (343). The *saltus lunae* of this cycle was outside these 16 years, between the year X of Anatole, II alexandrine, not included, and XIV of Anatole, VI Alexandrine, included, i.e. four years. Among them is the XII of Anatole, the one where the course of its cycle leading the neomenia to **March 21**, new date of the equinox since the Alexandrian reform, coincided with the Easter date of April 3.

In the same year, the Alexandrian cycle had the date of April 2. There is every reason to believe that the Jewish cycle which has the Alexandrian date of April 10 must also have been two years higher the date of **April 2**. This date was brought to the Alexandrians by the neomenia of the *te^r thôth* which inaugurated their cycle. It marked an advance of the moon on the Anatolian computus. However, in this year, the 1 Tishri which begins the Jewish lunar year, 5 and a half months or 6 and a half months (depending on the year) before the Passover, fell on September 24, autumnal equinox, ideal date of the beginning of the year in the lunsolar calendar of the Syro-Macedonians. It was therefore doubtful that it was in that year that the Jewish cycle had its *saltus lunae*.

Thus, we see that the Jews already had in the second quarter of the ive century a 19-year-old Paschal computus derived from the Anatolian cycle whose dates were modified from those when Anatole had the neomenia of **March 21**, year that became their first with the date of **March 20**, place of the *saltus lunae*.

But there can be no doubt that the Christian computists of Syria, successors of Anatole, have also, for the sake of accuracy and the need for conformity in Easter matters, taken into account the progress made by the Alexandrian reform with regard to the rise of the equinox and the retreat of the moon. It is even quite likely that heirs of the great computist, they devancé the Jews in this and were the real initiators of this development. It is true that the 30-year-old table starts from the computus of the Jews at the first indiction under Constantine (328), and this may make believe that the table is built on the computus of the Jews and depends on it. This is an impression that can be easily dispelled if one examines the circumstances in which the table was composed. Let us first note that the conciliabule from which it emanated brought together bishops from various regions including Syria and Egypt. In order to win all the votes, the first Easter date of the cycle had to be a common date. If the Jews had been the only ones involved, nothing would have prevented the Alexandrians from making their cycle prevail. If they did not do so or were unable to do so, it is certainly because the Syrians opposed them the Anatolian cycle, not the primitive Anatolian cycle, but modified, as we have said, starting from the year in which Anatole put neomenia on **March 21**. That is why, firstly, we composed a new 30-year cycle that avoided choosing between the two cycles in competition, and secondly we had to start it with a year that was not the first of either of the two. It was agreed to take the debut outside the lunar computus: the indiction became an easy and already entered into practice way for the numeration of the years. Here again, we were careful not to benefit either of the two computus. Indeed, it would have been quite normal to start the 30-year table in the same year as it was instituted (343), which was precisely a first indiction, but in this year, the Easter date was 26 March for the Syrians, 25 March for the Alexandrians. This discrepancy prevented the choice of this year 343. This is, apparently, the reason that made the beginning of the cycle go to the first year of the previous indiction, in 328, the year in which the Paschal date (10 April) was common to the renovated Alexandrian and Anatolian cycles. If the document highlights Jewish dates, it is for two reasons: firstly, because, addressing all christendom, the first Paschal date of the new cycle had to be designated by a reference foreign to the Christian cycles in competition, and it could not be the Jewish date of passover; the second, which is the main one, was to show by comparing Jewish Paschal dates and Christian Paschal dates how the new cycle observed perfectly

the ordinance of the Council of Nicaea not to celebrate before the equinox, as the Jews often did.

This examination of the 30-year cycle and the circumstances in which it was composed, not only manifests the existence among the Jews of the modified Anatolian cycle, but also assumes it among the Christian computists of Syria. They were probably the first to use it, no doubt both because they were the first to be warned of the Alexandrian operation concerning the equinox and because they were the most directly interested in developing the precision instrument which the famous scientist had endowed them with. It is doubtful, however, that they touched on the order of the years of the cycle and the world era based on it, whose tradition, for it was the same era as that of Africanus, was already secular and strictly respected the mysticism of the number 5,500. Be that as it may from this point, the *circulus lunaris*, distinct from the Novemdecennial cycle of Alexandria, was therefore substantially founded. We think that the Jews, who did not have the same reasons for reservation, did not hesitate to count the years of this same cycle from the neomenia of the 1st Tishri and that they were thus the first to give his number of years to the *circulus lunaris*.

The 30-year-old table had the advantage of walking with indiction, but such a long period, without internal relay (as in the 84-year-old table, where several *saltus lunae* straightened the gaps) prevented the course of the star from being squeezed quite closely to the point; in addition, it caused a delay of about one day per each cycle. Such a system could hardly satisfy computists. The Alexandrians especially did not have to make themselves fail to criticize him. Moreover, the assembly from which it emanated, a dissident fraction of the Council of Sardis, lacked sufficient authority to make it accepted everywhere, even looking only at the East. The cycle in question was doomed to failure. Had it not been for its conservation in the precious manuscript of Verona, it would have remained perfectly unknown, because it is doubtful that the cycle of 30 years mentioned, but not described, by Elijah of Nisibe, had anything in common, except the number of years, with that of the conciliar of Sardis.

The unification of computing was going to take place, at least in the East, on another basis. It was not what the Alexandrians wanted. The opportunity was provided by the completion of the 95-year Anatolian cycle, which, starting in 258, ended in 352 and at the same time completed the eleventh cycle of 532 years since its creation.

The Byzantine authors do not give us any information on what happened then, and that is why we no doubt find in modern scholars so paid attention to such an event full of consequences, and without which, we can be convinced, it is impossible to understand anything at the origins of the Byzantine era.

It is the Armenian historians who make up for the silence of Greek sources here. They tell us that a scholar named André, "brother of Bishop Magnus", composed, on the order of emperor Constantine, a bicentenary Easter table, which it had begun with a Passover (*XIV lunae*) of April 4 and that it ended "in the year 553" (1).

(i) See the texts collected by DITLAURIER, *Recherches...*, 57-67, by various Armenian authors, Jean Diacre, un anonyme, Guiragos, Étienne Orbélian, Mékhitar d'Aïrivank and Jacques de Crimée. All speak of Andrew's bicentenary canon and its beginning with the Passover of April 4. The work of the computer is specially highlighted by the anonymous and Guiragos. It is the latter that mentions the intervention of emperor Constantine. -- Dulaury (p. 73) did not realize the reform of computing carried out then, probably because he ignored the result recorded in the *rpoyoi* of the *Chronicon Pas-chale*. He thought that the *enneadekaétéride* of the computist André began in 353 as a continuation of that of Anatole. Nor did he see that the Alexandrian cycle was a reform of that of Anatole. It presents the figures of epacts and the Easter of these three cycles as being identical, except in a single year, where the Passover is on April 6th in Andrew and April 5th in Alexandrians. This exception is explained by the leap from the moon put by him to the previous year, the ninth year of André's cycle; and certainly it must be admitted. what is unacceptable and inexplicable or at least without explanation is to see a jump from the moon to the ninth year of an *enneadekaétéride*. This anomaly should have warned our author that it was wrong, that the jump from the moon that it was necessary to admit could not

The determination of the Easter festival was in the fourth century something important enough that one should not be surprised by the imperial intervention mentioned by the Armenian authors. Emperor Constance was Arian, therefore unwilling to favor the influence of the Church of Alexandria, the Church of Athanasius, influence of which the annual fixing of the Feast of Easter was one of the most conspicuous manifestations. As for André, brother of Bishop Magnus, he is not unknown, if he is of the Greek authors. Eli eo^f Nisibe, who also called him "brother of Magnus" (r), cites him as an authority next to Eusebius and Anatole. He situates the time of his activity in these terms: "From the time of the appearance of the Lord to the time when Andrew made his Chronicle, more than three hundred years ago." He specifies that the calculation of this Chronicle then placed the vernal equinox on March 21. He also points out another work by Andrew, *De azymis* (2), which, judging by the quotations he makes of it, was directed against the Jews and dealt with the celebration of the Passover after the equinox. This André is therefore a special feature in the science of computing and one cannot therefore be surprised to see him chosen to establish a Paschal table. As for the fact itself, the elaboration of the 200-year-old table, it is impossible to doubt it, because for Armenian authors it is an event linked to the very origins of their national era.

Armenian authors, we have said, place the end of Andrew's bicentenary cycle "in 553". This year is expressed in the Armenian Christian era. According to the authors who use it, it is a year or two ahead of the Dionysian era. In this case, it is easy to know what the date is envisaged. It is enough to notice what was in our informants the *XIV* Easter *lunae* of the year in which the bicentenary canon of André began. This Passover is the Passover of 4 April. If we are told that the canon came to an end in 553 (Armenian date), we must understand 552 of the Dionysian era, since two centuries earlier, it is the year 353 that offers us the Paschal see of April 4. The year 353 is therefore the year in which the reform took place. By this time, the computists of Syria had already had their revision of the cycle. It is repeated here, with the effect surely, this time, of the change of order in the years of the cycle and the change of the era; it is from this perspective that we describe it again, despite certain repetitions, to mark all its peculiarities.

Essential point! The revision had to respect Anatole's principle, that the cycle had to have a natural foundation, and precisely that which he himself had laid down: savoir that the first year of the cycle was the one in which the neomenia fell at the vernal equinox. This equinox having been raised to March 21, it is from the year of Anatole where was March 21 that we began the cycle. We have said how, as a result of the Alexandrian reform, instead of March 21, it was on March 20 that the initial neomeny of the cycle was placed. It bore the Easter date of April 2 instead of April 3 which was at Anatole's. Starting from this Easter date of 2 April, in its first year, the new cycle ends, for the 19th year, on the Easter date of 14 April. This is the date of the first year of Anatole. As a result, those of Anatole's previous ten years are also preserved. The 12nd year of Anatole becomes the first of the new cycle. It therefore includes the *saltus lunae* which advances the Paschal dates by one day until the end of the Anatolian cycle, that is to say until the *saltus lunae* which restores the identity of the dates. Thus, the new cycle starting in the first year 2nd year of that of Anatole, has a difference with it of either eight years or eleven years, that is to say eight years higher or eleven years lower. It is natural that we took the smallest difference, even if it was necessary not to stray too far.

be only in the last year of an enneadekaétéride, and therefore that there had been correction or reform of the Anatole cycle, with the beginning of the new cycle not point in 353, as a continuation of the primitive cycle, but in 345, eight years above. — The Armenian information on the work of the computist André was also known from J. IARX'd'ART and A. BADER, *HiPPolytus Werke: Die Chronik, Anhang*, 403-409, but they too did not appreciate all the importance.

(1) ÉLIE DE NISIBE, ed. CHABOT, *pars post.*, 52 (versio, 73); DELAPORTE, 204.

(2) ID., 109-110 (versio, 119); DELAPORTE, 311-312.

of the mystical number of 5,500, the ideal date of the advent of Christ. The era with the cycle, was raised by eight years. The Anatole cycle was to begin again in 353. The beginning of the new cycle was in 345.

Now let's look at how the new cycle relates to creation. We have seen that the 19th year of this cycle has its Easter date of 14 April. To this year corresponds the precyclical year, the first year of creation, but this Easter date can not suit him. It is in fact the result of the unfolding of the entire cycle, at the end of which it is unequal with the cyclic duration of the course of the moon, and this makes it necessary to carry out the operation of the *saltus lunae* which makes the readjustment to the following year, the first year of the cycle. But the precyclical year is not the end of a cycle: it cannot therefore call the *saltus lunae*; its date will therefore be 13 April, not 14 April. But, if this is the case, if the *Easter XIV lunae* in the first year of creation, precyclical year, is on 13 April, it will necessarily be eleven days earlier in the following year, the second year of creation and the first of the cycle, namely 2 April, of a neomenia of 20 March. And this is how, by the very process of reform, the neomenia that opens the cycle is not at the equinox itself, March 21, but on March 20, bringing the first Easter date of the cycle to April 2. We go further and see how it all connects to the Genesis days. The *XIV Easter lunae* of creation in the new style is therefore April 13th. However, this led, for the previous lunation, the first of the creation, the *XIV lunae* to March 15. This year of precyclical creation corresponds, by reference, to the year 344 AD. In this year, and consequently, in the year of creation, March 15 is a Thursday. Three days later, it is Sunday the 18th, and the following Wednesday, it is March 21st, the very day of the equinox. These coincidences are characteristic. It is obvious that for the authors of the reform of the Anatolian cycle, Wednesday, March 21 was the day of the creation of the luminaires, on the fourth genesis day, March 18 being at the first and opening the solar annual cycle. The moon was created in its twentieth day, and by this was in its third quarter, and moreover, did not exceed the limits allowed in the East for the celebration of the Christian Passover. As we can see, it is from the very date of the creation of the moon at the equinox, March 21, in its xxth day, that in the final analysis derives the neomenia of the

20 March leading to the Passover on 2 April, the first of the new cycle (1). Let us add that this neomenia of March 20 really takes the place of the neomenia of the equinox, that of March 21 can not find place in the cycle. Indeed, the course of the lunations from March 20 with its Passover to April 2 in the first year, leads in the nineteenth and last year of the cycle to a Passover from April 14, from a neomenia to April 1. At the end of this nineteenth year takes place the leap of the moon, which precisely prevents the neomenia of March 21 and the Passover of April 3 and resumes at the beginning of the cycle the dates of March 20 for neomenia and April 2 for Passover.

It is worth noting that the correspondence marked for the year of creation between the solar and lunar days, namely that the moon on March 21 is in its xxth day of a neomenia of March 2, is specific to this precyclical year. In the cycles themselves, where this year corresponds to the 19th, the moon on March 21 is on its xx^{le} day, of a neomenia of 19th March.

Now let's add the mystical point of view, always important. The moon being created on March 21, Wednesday, it follows that the creation of man, the following Friday, is to March 23. It is the day which, in the chronology of Christ of Anatole, chronology maintained, is that of the Passion. The man, created on Friday, March 23, is also redeemed on March 23, Friday. The 25th falls on a Sunday and recalls by this concordance the resurrection of Christ.

Next to this explanation that leads the creation of the moon to March 21, on its xxth day, I must

(1) It is by mistake that D. SERRUYS (*Rev. de Philol.*, 31, April-July 1907, p. 159) attributes to the *Chronicon Paschale* the indication that the moon was created on March 21 at its XI^V day. Nowhere does it read that. If he uses the /V lunae of March 21 for his calculation from there Passover, it is because it is the deadline, that of the equinox.

report that of Psellos which puts it on the xive day, on the Wednesday of the previous week, to be full the day following March 15 (1). Whatever the day on which the creation of the luminaires is placed, the Wednesday before the equinox, or the Wednesday following it, this difference in no way affects the essence of the reform.

Finally, it should be noted that the Reformed cycle of Constantinople, compared to the Reformed cycle of Alexandria, had a difference of three years: it began in the fourth year of this cycle. The jump from the moon being placed at the end of the nineteenth year, it resulted in a difference in Easter dates for three years. Instead of the Alexandrian dates: April 5, March 25 and April 13, we were to have in the Reformed cycle of Constantinople: April 6, March 26 and April 14. The latter was not then applied, for the reason which we shall give below, but was undoubtedly applied previously (2).

This is the reform of the Anatole cycle carried out in Constantinople. Let us return in more detail to the changes made in the order of the cyclical years. The first year of the new cycle (Passover 2 April) corresponds to the twelfth of the Anatole cycle, and the first of Anatole to the ninth of the new cycle. The reform of Constantinople, we have seen, took place after the first cycle of 95 years, in 353, where a similar second cycle was to begin with the first year of an Anatolian enneadékaétéride. The new cycle, which was then the ninth year, had therefore begun eight years earlier, in 345. It is from there, through this official reform, that the lunar cycle proper, the cycle *ἡ CC.T.*, takes off. *yti)atv*, well known throughout the Latin Middle Ages as *Cyclus* or *Circulus lunae* or *lunaris*, and which, we will see later, is the basis of the Byzantine era. It appears in the enneadékaétéride of Dionysius the Lesser, where it is paralleled with the Alexandrian cycle.

This establishment of the lunar cycle in 345 by the Byzantines, I do not see it signed by any scholar; it is nevertheless necessary, as a result, both and jointly of the testimonies which oblige to place the reform in 353 and of the nature of the operation which took place then and which we have analyzed. It is still necessary, because from this date of 345 depend two other eras studied below, which it is impossible to account for otherwise. We can therefore see that the reform of the Anatolian computing carried out in Constantinople in 353, is, no less than that carried out in Alexandria, an event of the utmost importance in the history of computing and chronology.

The presentation we have made so far of the 353 reform concerns what constitutes its essence. It translates what the new cycle is as it results from the strict application of the natural foundation of the equinox laid by Anatole. The date of the equinox being changed, it was to result in the transposition of the cycle that we have described. But there was not limited the work of the computists of Constantinople.

We have seen that the Anatole cycle, proper lunar cycle, *xa r& çoũgtv*, had its beginning in the second year of creation. The same was, of course, true for the revised cycle. As a result, the years of the cycle were one unit behind the years of the era of creation, given the change in that era as a result of the change in the cycle. This was an inconvenience, because dividing the year of the world by 19, it was always necessary to subtract a unit, either before or after the operation, to know the current year of the lunar cycle. This disadvantage did not exist in the Alexandrian cycle. This one starting in the first year of Diocletian, it was enough to divide the year in which one was of this era to know immediately, by the rest of the division, the current year of the cycle. The computists of 353 wanted to have this advantage as well. To this end, they built their new cycle in such a way that the first real year, *ZOC:7 to cp15,1;,,*, became the second, as it was

(1) Gertrude REDL, *La chronologie appliquée de Michel Psellos*, *Byz.*, 4, 92 7-1 9 28, 216-218.

(2) Namely, by Syrian Jews and Christians in the quarter of a century preceding the unification of 353.

in the order of creation, and the 19e, which was without epacts, similar in this to the year of creation, became the first. Thus, there was an exact correspondence between the years of the cycle and the years of the world, and the computists of Constantinople had nothing more to envy to their followers of Alexandria. This new arrangement naturally also affected the jump of the moon, whose normal place is after the completion of the cycle. Like this one, it was a year back. This rise in the cycle had the effect of reducing to two the years of the cycle where the seat of the Easter moon differed from that of Alexandria. That of the divergent third year was, by this operation, pushed to April 13, as with the Alexandrians.

The operation had another advantage. It was to place at the head of each cycle the concordance between the days of the moon and the days of March, the month of the equinox, the two months, lunar and

solar, starting in the first of March. In the cycle zy, -, .. & this concordance was in grade 19. The new provision thus brought a convenience of calculation at the same time as a happy harmony.

The result of all this elaboration appears clearly recorded in trochos IV of the *Chronicon paschale* (1). We have reported it in column IV of the comparative table on pages 54-55.

The cycle did not fail to come into effect as early as 353, which was in the series the ninth year zoczA? ;:)(stv, the tenth x.7.7', k 0&:s.cv. The Passover was there on April 4. It was from this year 353 that Andrew, brother of Bishop Magnus, composed his bicentenary table, where the Easter dates were marked according to the new style.

Composed on the order of the Arian Constance who did not want to have to depend on Alexandria, this table, without a doubt, was of official use in Constantinople and in its great European and Asian domain, as well as in Syria. The Easter dates were to differ only rarely, namely the years only in which the Easter seats diverged from the Constantinople cycle, later by one day, fell on Sunday.

André's table does not enjoy this advantage for long. It was supplanted by the centenary table of Theophilus of Alexandria, dedicated to Theodosius I: **this one started from the year 380**, just after the end of the first Alexandrian cycle of 95 years (2). Two causes contributed to this change. First the table of 353 was due to an Arian prince; but the advent of Theodosius had brought to the East the triumph of orthodoxy. Was it not appropriate that the official Easter list bore the name of an Orthodox emperor, which would be assured if the order of the cyclical years were no longer the same, in other words, if the cycle of Alexandria replaced that of Constantinople? Then, the starting point of the centenary table was named "first consulate of Theodosius the very religious emperor". It could only be very pleasant to the sovereign. Perhaps it was hoped and believed that the name of Theodosius would remove in the numerals of cycles that of Diocletian. But Theodosius, who died in 395, did not see the end of the cycle begun in his name, and probably the previous use was too rooted to be modified. We know that St. Cyril restored him to the centenary table that Theodosius II asked him to do, in conjunction with the years of this emperor. The latter, too, were soon abandoned.

Before giving way to Theophilus' centenary table, Andrew's table had had time to acclimatize in Armenia, where it continued its office until it expired in 552. It is through this that the memory was kept. And it was his fortune too brief in Byzantium that made him forget Byzantine authors.

(1) *Chronicon Paschale*, ed. Bonn, 534.

(2) See above, pp. 37-38.

THE STARTING POINT OF THE ANATOLE CYCLE

We can now, after this presentation of the Anatole cycle and its reforms, turn to the discussion on its first starting point, 258 or 277. The problem depends on two kinds of data: one of astronomical order (movement of the moon), and other of a historical nature (facts and testimonies). We have already implemented **these with regard to the date** of 258. Let's finish by indicating what is in favor of 277. There is only one text, but it is very important. It is that of Eusebius (trans. Saint Jerome), well known to chronologists, where, in the year 2 of the emperor Probus, are accumulated various eras forming synchronism, all from various cities of Syria: Antioch, Edessa (here the era of the Seleucids), Tyre, Laodicea, Ascalon. The year indicated is precisely 277 AD. What the chronicle inscribed under this date is the birth of Manichaeism, but also, just before, a short notice on Anatole of Laodicea: *Philosophorum disciplinis eruditus plurimo sermone celebratur* (i). It is true that this accumulation of local eras is not the work of Eusebius himself; it is not believed, moreover, that they originally related to such an event. Eusebius borrowed them from some learned chronograph. This one, because of the vile named, all from this country, can only be sought in Syria. And there is every reason to identify it with Anatole of Laodicea himself — Laodicea is precisely one of these cities — famous scholar, author of writings that Eusebius knows and admires, and in particular of these *xOEv4v.s:c. ; r p -roû H 6c3.zot*, of which he has preserved to us the precious fragment which describes the Paschal cycle of 19 years which is at the origin of all the others and which is occupying us at the moment. And the fact that Eusebius places under this same date the activity and celebrity of Anatole ensures this identification. In addition, a manuscript of the Ps. Anatolius reports to the year 249 after the Passion and first of Probus the beginning of the cycle of Anatole (2). With it our problem becomes clearer. Anatole has been bishop of Laodicea since 269. The year 277 is a first year of its cycle. The synchronisms accumulated on it can only mean one thing, it is that it is the very first, the one where it was inaugurated: it was indeed necessary that we knew out in Syria, so as not to be able to be mistaken, in which precise year the cycle was to begin, and it is to this concern that the indication of the main eras that were used there, from Laodicea to Edessa and Ascalon, responds.

It was this reason from Eusebius' text that impressed Schwartz and caused him to abandon his first opinion. What is surprising is that he did so, at least in the place where he retracts (I do not know if he did it elsewhere), without trying an explanation of Victorius' text on which he based it. This text remains: it resists. D. Lebedev tried to weaken it by saying that the year of the creation of the cycle being without comparison more important than its renewal, Victorius should, if it were her, have marked it in the year 258, which he did not do (3). Probably, he did not. But in what way does what he does not say diminish the strength and scope of what he says: in 353 "beginning of the "paschal" of the Greeks after 95 years"? This cannot be avoided. And this imposes a beginning of the cycle of 95 years before 353, so in 258. Lebedev interprets and assumes that it is a 95-year cycle ending in 447. It is too convenient. Mommsen, embarrassed, had already proposed to replace *post XCV annos* by *per XCV annos*, or to replace the text by adding *finientis to paschalis* (4). The meaning then becomes in both cases that the year 353 is the beginning of a cycle that must end after 95 years. That is all very well! But correct, add are processes don't it is necessary to use only in desperate cases, to avoid a nonsense, a contradiction, to join a certain thought

(i) *Eusebii Chronicon*, ed. SCHOENE, II, 185.

(2) KRUSCH, *Stildien* I, 211.

(3) D. LEBEDEV, *19-lëtnyj ciki Anatolija I, aodikijskago*, V17, 18, 1911, 165.

(4) KRUSCH, *Stuidien*, II, 42, which reports in the critical pageantry the conjectures of Mommsen.

of the author. Is that the case here? It is not easy. And if there is a way to understand the text without undermining it, will it not be the right one?

The whole thing here is to realize what the "Paschale" of our text means. It does not suppose, at least his corrections suggest, that Mommsen recognized its true meaning. This term is used twice in Victorius' table, once in our case, in the year 353, a second time, about Theophilus, in the year 380: *Hinc Theophilus episcopus paschali suo sumpsit exordium* (1). It is obvious that here Victorius intends to designate the Paschal table of 200 years offered by this bishop to Theodosius I^e. It is therefore the same meaning that the word must have in the year 353. It also designates not a cycle, but an Easter table. However, precisely, at the official reform of computing carried out in 353, was drawn up, as we have seen, a 200-year Easter table with a starting point for that same year. It is undoubtedly this "paschale" of 200 years that Victorius heard to designate. And it is understandable that if it indicates it, it can only be because of its official nature. With this, Mommsen's corrections no longer have a place. We remain in the presence of a "paschal" preceded by a period of 95 years. And here we are back to the year 258. If Victorius mentions this past period, it is because he must have found the mention in his source, namely, the preface of the Paschal table of 353. He does not do the same for Theophilus' table, also separated by a distance of 95 years from the beginning given to the Alexandrian cycle (285), but we know that this computist bishop had taken care not to mark a connection to a cycle, probably so as not to arouse opposition to his table which replaced the old one.

Now that we know the true meaning of Victorius' text, we should no longer be surprised, along with Lebedev, to see an "initium" marked in the year 353, and not in the year 258; this one is far from having for him the same importance and silence about it cannot be an objection. It will be agreed that the great Latin computist, who set up a table for official use for the Roman Church, did not have to deal with the various tables or cycles of private origin or restricted use which might have existed in the East, and no doubt he did not know them; but he could not ignore the official tables, which were endowed with authority or imperial recognition. It was they, without a doubt, who provided him with the divergent Easter dates of the Greeks: he had these tables in front of him and it is only natural that he recorded their respective "initium". The Anatole cycle did not belong to this category: it was not initially official throughout the East, it was never official in its primitive form. Others competed with him or competed with him until the first official table, that of 353, adopted him by transforming him. And it was by declaring and explaining this transformation that the document creating this table had to indicate the 95-year duration during which the first form of the cycle was observed.

From all this it seems that if we stick to the historical data, the date of 258, based on a direct testimony, is not easily deleted. What about the point of view of astronomical observation? That is to say, in the first place, to which of the two years, 258 or 277, is suitable the neomenie marked on March 22 by Anatole in his cycle? Then, did not some other element, also of an astronomical nature, intervene for the determination of the first starting point of the cycle?

Here are first the data for neomenia for the average time of Alexandria; I indicate the extreme notations, the second according to the most commonly invoked authority:

March 258, 22: new moon in the afternoon, at 4 h 27 mn 3 s, according to Oppolzer-Ginzel: at 3 h 56 mn, according to Ptolemy (2).

(1) KRUSCH, *ibid.*, 44.

(2) D. I. EBEDDEV, *art. cit.*, 169.

March 277, 22: new moon, in the night, at o h 43 mn, according to Oppolzer-Ginzel; at o h 35 min 9 s, according to Ptolemy. It is likely that Anatole here, as for the equinox, followed Ptolemy (1).

The comparison, obviously, is in favour of 277. Lebedev sees this as a categorical argument against the date of 258. March 22, 258, he says, could only be the 29th adar, not the 1st nisan. Certainly, and there is no denying it. But our problem is not absolutely solved for this, because one wonders whether, despite this gap, which he may have neglected or which he had to iron out, there was not an important reason for Anatole — it was necessary such — to mark the first opening of the cycle in 258. To do this, let us turn our attention to the solar cycle. I have to say that Lebedev has already done so, and even found one more argument in favour of 277 on this side. He noticed that this year is the first of a solar cycle according to the Alexandrian era. Such a coincidence can hardly be the effect of chance: it must have been wanted, that is to say that Anatole insisted that the first year of its lunar cycle was also the first of a solar cycle (2).

To realize what this reason is worth (3), we must look at what is the basis of the Alexandrian solar cycle. This foundation consists in the meeting, in the first year of the cycle, declared such because of this, of March 25 and Sunday. For Lebedev, the date of 25 March was taken as "initium", because it is that of the Romanuinox eq (4). But, we will ask, is it appropriate that, just as he declares that the equinox is on March 22 (March 19 according to Lebedev), Anatole uses a solar cycle that begins on March 25? Another, even more important, remark. In order to be able to speak of the same beginning for both cycles, there must be the same way of counting the epacts, that is to say that if the first year of a cycle is without epacts, the other year must also be without epacts. However, this does not take place in the meeting of the first year of the Lunar Cycle of Anatole with the first year of the Alexandrian solar cycle. The lunar cycle of Anatole begins with epacts: the Alexandrian solar cycle begins without epacts. So that, although the years of the two cycles together bear the same serial number, there is nevertheless a difference between them; for it is only the next year that the solar cycle will have its first epact. As we see, the concordance is purely in the numeral, not in reality. It is not possible that Anatole was content with this, much less that he sought it. Now, these conditions which are lacking in the year 277 to be the same beginning of the lunar and solar cycles, namely the identity of the day as a starting point, the community on this same day of the beginning of the epacts, the fixation of this day to the equinox, we find them realized precisely in the year 258. In this year, on the day of the equinox, March 22, the neomenia takes place and the moon has its first epacts with the number 11 (5). This day is a Monday, that is to say that the sun also begins its course of epacts with the number 1. The two cycles, at the equinox, thus have the same epactal starting point. Such a meeting is otherwise significant than that, noted by Lebedev for 277, which

(1) D. LEBEDEV, *art. cit.*, 153.

(2) *Ibid.*, 169.

(3) Such encounter³ between lunar and solar cycles not granted necessarily intervene by the unfolding Years. One cannot draw any argument. Here are several at the time that interest us:

In 440: First year of the Dionysian solar cycle and of the Byzantine lunar cycle;

In 496: First year of the Dionysian solar cycle and the protobyzantine lunar cycle;

In 608: The year of the Dionysian solar cycle and the Alexandrian lunar cycle;

In 725: First year of the Alexandrian solar cycle and the Byzantine lunar cycle;

In 781: First year of the Alexandrian solar cycle and the protobyzantine lunar cycle.

(4) D. LEBEDEV, Tak nazyvaemaja " vizantijskaja " era, *Vizantijskoe obozrenie*, 3, 1917, 19.

(5) D. LEBEDEV, r9-lètnyj cikl Anatolija Iaadikijskago, *IV*, 18, 1911, 212-214, epact mark 1 in the first year of the Lunar Cycle of Anatole. He seems to deduce this, because no other reason appears, from the corresponding year of the Alexandrian cycle (12th) which has this same figure of epact. But the Alexandrian cycle is later than that of Anatole; it is based on the neomenia of the I Thôth, a conventional date, and it is from this starting point that epact 1 to the 12th year results.

joined together the first year of a lunar cycle with the first year of a solar cycle counted according to another measure. If this is the case, if the year 258 meets exactly all the conditions required to be both the first year of the Lun area cycle and the first year of the solar cycle, what more does it take for it to be considered as the year that Anatole took as the starting point of his Pascal computus?

Thus the astronomical data also testify in favor of 258.

What should we then do with the synchronisms brought by Eusebius to the year 277, and especially with the neomenia so exact of **March 22** of that same year? Does all this not also require an explanation? certainly. That is what we are going to do now. We have so far seemed to **reject the date of 277**, but it was in the same way that it was opposed to the date of 258 in order to delete it. We are in fact convinced that it must be given a role in the creation of the round, and that thus the real and complete solution to the problem of **taking account of all the data and harmonizing them**. Here's how we design it.

Anatole, in 258, has not yet composed his cycle. He composed it while he was bishop of Laodicea, after 269. There is every reason to fix for this work the year 277. It is on the year 277 that the calculations and observation of the scientist relate. They show him a new moon just on **March 22**, equinox, shortly after midnight. This day is therefore counted as ^{ter} of the moon. This neomeny of **March 22**, equinox, recorded by Anatole, was considered by him as having to reproduce exactly at each renewal of its lunar cycle, every 19 years. And if it mattered for the future, it must have mattered for the past. In the eyes of our computing astronomer, the year 277 was a perfect **start of the lunar cycle**; it could not be the first beginning. For it was not an absolute beginning, that is to say, in conformity with the order of nature; that year, in fact, **March 22** fell on a Thursday: which made 4 epacts for the sun. There was also discordance between the two courses, lunar and solar. Anatole, who built his cycle on a natural foundation, on the natural course of things, could not be satisfied with this. Now, the necessary conditions for an absolute beginning, he found them in 258. In this year, certainly, the new moon did not take place until the afternoon, around 4 o'clock, but for Anatole, who could not observe a phenomenon that had occurred twenty years earlier, it was the same neomenia as that of 277, taken as the one that the cycle brought back regularly. It is this year 258 consequently that he took proleptically as the first lunar cycle and as the absolute starting point of his Pascal computus, both the first year of **lunar cycle and the first of the solar cycle**, on the same day, at the equinox.

As for the year 277, that of the operations that fixed the neomeny on March 22, and the year that opened the first cycle really observed, it is understandable that Anatole, precisely because it was the starting point of the practical application, wanted to mark it with various synchronisms, to designate it more surely to the people **using other eras** who lived in Syria.

Let's go back to the year 258. Starting from the common beginning of the solar cycle and the lunar cycle, a simple operation produced a large cycle of 532 years cyclically bringing back in the same year the same easterly dates to the same day of the week. We have no testimony that Anatole thought of it. I would, however, gladly believe it, at least to link the cycle to creation, given in this the mystique of the number 5,500. And precisely in 5500 BC our era is a **March 22**, offering cyclically, according to the cycle of 19 years, the same characteristics as the year 258, namely the meeting to date of neomenia and Monday, the year of pre-cy-clique creation being 5501 BCE. This is where, as we have said, the era of Africanus where the Incarnation of Christ is at the beginning of 5501. It is therefore from the year 5500 BCE: that Anatole will have made the cycle of 532 years. As for building an S32-year-old table for the future, this was along and tedious operation, and perhaps also considered useless, if, as the idea was then quite widespread among

chronographs, the world was to last only six millennia: the table would have exceeded the sixth millennium by nearly three centuries ($5,759 + 532 = 6,291$) and would not have been used for a second period, thus missing its *raison d'être*. But could we not find a shorter period that would provide, on a smaller scale, the same services? We found the 95-year-old (5 times the 19-year cycle). It was certainly necessary, to invent it, more calculation and observation, I would say more ingenuity, than for the 532-year cycle whose terms 28 and 19 presented themselves. Also, since there existed a table of 95 years ranging from 258 to 352, it is quite likely, although the name of Anatole is not attached to it, that it should be attributed to it. There is no doubt that this cyclical period does not have the mathematical fixity of that of 532 years, but it nevertheless proceeds according to a regular rhythm that must be careful to observe. Anatole, if he is indeed the inventor, must have noted the correct way of using it. Not everyone, in truth, was capable of this, and that is why purely hardware applications were inevitable. The *Chronicon Paschale* tells us that there were people quite simple to write, imagining that all the dates always came back the same, Easter tables of 95 years and display them in the churches, to the point of causing the laughing stock of the pagans, the Jews and the heretics (1).

To conclude this discussion briefly, we will say that the Anatole cycle was built in 277 and then had its first practical application, but that its absolute beginning was placed preleptically in 258, to leave at the same time as the solar cycle. From this year 258 began a cycle of 95 years, probably created by Anatole himself, or at least by a computist who attributed to him this same beginning of the cycle.

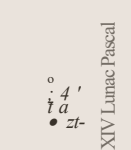
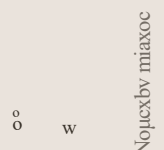


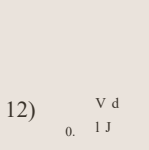
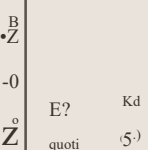

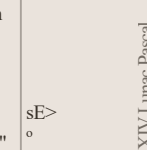
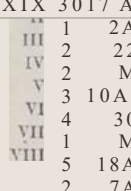
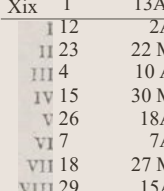
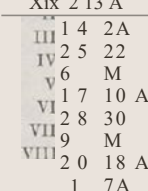
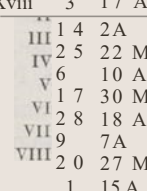
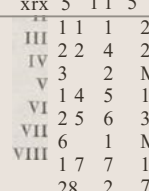
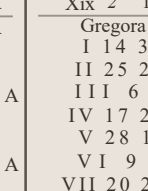
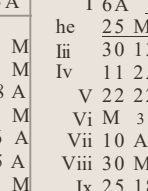
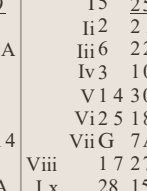
This is the only solution that takes account of and makes good all the texts and harmonises all the data. It is important to us because it enshrines the date of 258 as the absolute commence of the Anatolian lunar cycle.

(i) *Chronicon Paschale*, ed. Bonn, 19-20; PG, 92, 85 CD.

VARIOUS FORMS OF THE CV

I Anatole	II Alexandria	III Victorius	Iv Constantinople (353)	V A eaS	VI Iron	VII Heraclius	VIII George	IX. ria")77.7),') Z.
<div><div>n</div><div>c=1</div><div>XIV Easter lunae</div></div>	<div><div>Epactes</div><div>XIV lunae pascal</div></div>	<div><div>V i</div><div>gl^ā P._w</div><div>XIV Easter lunae</div></div>	<div><div><i>Chronicon paschale</i> Τροχὸς iv κκστᾱ Oicstv K. cpbatv 7, <i>rs^{oi}</i> p.</div></div>	<div><div>XIV Easter lunae</div></div>	<div><div>XIV Easter lunae</div></div>	<div><div>n a. Z², v</div></div>	<div><div>v.</div><div>XIV Easter lunae</div></div>	<div><div>Années</div><div>Epactes</div><div>XIV lu</div></div>
I 11 4 A II 22 24 M III 3 12 A IV 14 1 A V 25 20 A* VI 6 9 A VII 17 29 M VIII 28 17 A IX 9 6 A X 20 26 M XI 1 14 A XII 12 3 A XIII 23 23 M XIV 4 11 A XV 15 31 M XVI 26 19 A* XVII 7 8 A XVIII 18 28 M XIX 29 16 A	XII 1 4 A XIII 12 24 M XIV 23 12 A XV 4 1 A XVI 15 21 M XVII 26 9 A XVIII 7 29 M XIX 18 17 A I 0 5 A II 11 25 M III 22 13 A IV 3 2 A V 14 22 M VI 25 10 A VII 6 30 M VIII 17 18 A IX 28 7 A X 9 27	III 11 3 A IV 22 23 M V 3 11 A VI 14 31 M VII 25 20 M VIII 6 8 A IX 17 28 M X 28 16 A XI 9 5 A XII 20 25 M XIII 1 13 A XIV 12 2 A XV 23 22 M XVI 4 10 A XVII 16 29 M I 19 26 M II 30 14 A	X 9 4 AIX 9 xi 20 24 M* X 20 Xii 1 12 AXI 1 Xiii 12 1 A XII 12 Xiv 23 21 M* XIII 23 Xv 4 9 AXIV 4 Xvi 15 29 M XV 15 Xvii 26 17 A XVI 26 Xviii 7 6 AXVII 7 Xix 18 26 M XVIII 18 I 30 13 A XIX 29 II 11 2 A I 11 Iii 22 22 M II 22 Iv 3 10 AIII 3 V 14 30 M* IV 14 Vi 25 18 A V 25 Vii 6 7 AVI 6 Viii 17 27 M VII 17 Ix 28 15 A VIII 28	XI 4 A XII 24 M XIII 12 A XIV 1 A XV 21 M XVI 9 A XVII 29 M XVIII 17 A XIX 6 A I 25 M II 13 A III 2 A IV 22 M V 10 A VI 30 M VII 18 A VIII 7 A IX 27 M X 15 A	XI 4 A XII 24 M XIII 12 A XIV 1 A XV 21 M XVI 9 A XVII 29 M XVIII 16 A XIX 5 A I 25 M II 13 A III 2 A IV 22 M V 10 A VI 30 M VII 18 A VIII 7 A IX 27 M X 15 A	XI 4 A XII 24 M XIII 12 A XIV 1 A XV 21 M XVI 9 A XVII 29 M XVIII 17 A XIX 5 A I 25 M II 13 A III 2 A IV 22 M V 10 A VI 30 M VII 18 A VIII 7 A IX 27 M X 15 A	IX 9 4 A X 20 24 M XI 1 12 A XII 12 1 A XIII 23 21 M XIV 4 9 A XV 15 29 M XVI 26 17 A XVII 8 5 A XVIII 19 25 M XIX 30 13 A I 11 2 A II 22 22 M III 3 10 A IV 14 30 M V 25 18 A VI 6 7 A VII 17 27 M VIII 28 15 A	IX 10 4 A X 21 24 M XI 2 12 A XII 14 1 A XIII 25 21 M XIV 9 A XV 17 29 II I, I XVI 28 17 A XVII 9 6 A L XVIII 20 26 M* XIX 1 13 A I 12 2 A II 23 22 M III 1 10 A IV 13 30 M V 2 G 18 A VI 7 7 A VII 18 27 JI VIII 29 13 A
R econstitution. The Easter dates are given closely- SCHWARTZ, <i>Ostertaleh</i> , 17. — The dates of years V and XVI are, according to LE- BEDEV, 21 March and 20 March, VV, 18.	Cyrilic form transmitted by Denys the Little: Knusciu, <i>Studien</i> II, 69.	SCHWARTZ, <i>Osterta-tein</i> , 74; KRUSCH, <i>Studien II</i> , 27. The starting point of the cycle years is the year of the	In year XI, the <i>Chronicon P.</i> puts the Paschal date to March 23 for the year of the Passion. — In years XIV and V, the text mistakenly gives the dates 20 Apr. and April 10. — The dates of this cycle are also attributed to the Jews by St. Maximus. — The Paschal dates of the cycle >MT& 91. iatv were the same, except for one, on April 14, which replaced april 13 of the cycle xocr: ". (eicrtv.	Reconstitu- Reconstitu (See ment. This cycle The date is that of 16 April Syrians nes- was never Torians (see applied pp. 98–102). (see pp. 103- 106).	p. 101).	Fr. DIEKAMP, <i>BZ</i> , 9, 1900, 27-28.	reconstitution. the date of March 26 is given by saint you Maxime comm. being a Jewish da that does not modify, not the calculation of the nEwroc7c), Or)vreq but it is likely that the date of these was	

LUNAR KEY OF 19 YEARS

Byzantine					XV	XVI Armenian	XVII Georgian
<i>Chronicon Pasch. Tpozoc</i>	xi Psellos	Xii John Damascene	Xiii Blastarès	Xiv Isaac Argyros			
							
IX 10 4 A X 21 24 xi M XII 13 12 A XIII 24 1 A XIV 5 21 XV 16 M XVI 27 9 A XVII 8 29 19M XIX 30 17 A	Ix 10 4A X 21 24M xi 2 12 A Xii 13 1A Xiii 24 21M Xiv 5 9A Xv 16 29M Xvi 27 1/2 16A Xvii 9 5A Xviii 20 25M Xix 1 13A	IX 12 4 A X 23 24 M xi 4 12 A XII 15 1 A XIII 26 21 M XIV 7 9 A XV 18 29 M XVI 29 17 A XVII 10 5 A XVIII 21 25 M Xix 2 13 A	Ix 12 4 A x 23 24 xi 4 M Xii 15 12 A Xiii 26 1 A XI 7 21 V 18 M xv 29 9 A Xvi 11 29 Xvii 22 M Xviii 3 17 A	Ix 9 12 4 A x 2 23 24 xi 0 M 4 12 Xii 1 A Xiii 1 15 1 A Xiv 2 26 21 XV 2 M 7 9 A Xvi 3 18 29 Xvii 4 M 29 XVIII 1 17 A xrx 5 11 5 A	E? quoti ent Ix 12 2 A X2 3 22 xi4 M Xii 15 10 A Xiii2 6 30 Xiv7 M x v 18 19A Xvi2 9 7A Xvii1 1 27 Xviii2 2 M Xix 2 15 A	7th u X 9 4A xi 20 24 Xii M Xiii 1 12 A Xiv 12 1 A X V 23 21 x 'I M 4 9A Xvii 15 29 Xviii M 26 Xix 17 A 7 1 6A 19	X9 4 A xi2 24 M Xii 0 12 A Xiii 1 1 A Xiv 1 21 XV 2 M Xvi 2 9A Xvii 3 29 M Xviii 4 17 A Xix 1 5A 15 25 M
							
<i>lova. paschale</i> , ed. 25.	G. REDL, <i>Byz.</i> 5, 224, 269-280 <i>BNJ</i> , 7, 349-351. The date of 16 April is theoretical. — This cycle is also that of the anonymous <i>ruchegger</i> , <i>BNJ</i> , 11, 1934 30.	Rem., 168-169 = <i>P0</i> , 95, 239-240. The canon of St. John Damascene seems to me reworked as to the ost/i-Xtov. Schi-sel anonymous has the same Osi4Xtov. iLVTH.J.7)11	<i>pg</i> 145, 91-92. Similarly, anonymous B by KARNTHALER, <i>BNJ</i> , 10, 1933, 9.	<i>PC</i> 19, 1289-1292, 1293, AB, 1305 A: cf. ps. ARGYROS <i>PO</i> , 19, 1322 V.	Draft reform that was not implemented <i>PG</i> , 19, 1313-1316 In year XVII, the text starts on 23 April and spells 10 instead of 11.	It is that of Con- stantinople (353), minus the date of year XIX, por 25 March.	Order of the years of the Cple cycle (353) with the dates not Alexandrian holds (see p. 152).

THEORIES ON THE ORIGIN OF THE WORLD ERAS

PÉTAU. - SCHWARTZ. - R CHL

PÉTAU'S EXPLANATION

The theory in force on the world eras in use among the Byzantines is the responsibility of Pétau. This prince of chronology considered that the Greek computists, once in possession of the 19-year cycle, were therefore only able to live with an era based on this cycle, where the division by 19 of the current world year indicates what is the year of the cycle. This was not the case, according to him, in the era of Africanus, and this is the reason why it gave way to that of Panodorus and Annianos.

This view, in its substance, is right, but on condition that it is restricted to the cycle that rests on a supposedly natural foundation, which is not the case of the Alexandrian cycle, but rather of the Constantinople cycle. Most likely the era of Africanus, as we have seen, was based on such a cycle (that of Anatole), and in any case was consistent with it. Pétau did not notice that before the correction of the era, there had been the corrections of the cycle, taking him with them. He further believed that the first correction of the Africanus era was that of Panodorus, having had no knowledge of the one made in 353. Naturally, since it concerns only the Constantinople cycle, Pétau did not take into account the distinction of cycles in cycle y.7.-:& yli)o-tv and cycle "Y.V7: OCGLV, this one, and not this one, being in alignment with the world era. As for the Alexandrian cycle with a conventional basis, it was by imitation that it was used in its turn to create a world era.

After these reservations, let us attend the initial operation that Pétau imagines (1). He assumes that the computist took as his starting point the first year of Theophilus' centenary table, the first year of an enneadékaétéride. This year, the first consulate of Theodosius, is for us the year 380. In the era of Africanus, it is 5882 (according to Pétau). As it is not suitable for the cycle, Panodorus by subtracting 10 years, obtains 5,872, number whose division by 19 gives as rest 1, beginning of cycle. This result should bring the year of the birth of the Christ to 5491 (5501 — 10). However, Panodorus put it two years later, in 5493. In Pétau's eyes, this means that Panodorus placed the first consulate of Theodosius, the first year of Theophilus' table, expressly in 380 A.D. J.-C., and this appears to **our scholar a testimony of the antiquity of our era**. That concludes a little quickly. Assuming that 5493 is indeed the year that Panodorus assigns to the birth of Christ, this explanation of his Christian era is not one; it is a petition of principle: it is to take as a starting point what may be only a result, only a consequence of other considerations. The resulting identity with our era is a pure coincidence, because Panodorus did not make school, did not create a tradition; he was soon replaced by Annianos, a contemporary. And we will see from the rest that this Christian era of 5493 is nothing less than assured.

(1) *De doctrina temporum*, t. III : *Dissertationum liber octavus*, c. 3, ed. of Venice, 1757, 156-157.

There is also one thing that Pétau does not explain: why did Panodorus, correcting the era of Africanus, subtract 10 years instead of adding 9, which gave the same result of aligning the era with the cycle? The truth is that the scale of the worldly ages was then determined by the axis of 5,500; hence Panodorus had to proceed in such a way as to place the birth of Christ in the cycle which included the mystical number, namely the cycle 5492-5510. Hence the correction of the Africanus era had to be made by subtraction rather than by adding the differential years, because in the latter case, unless history was ignored (this is not the fact of Panodorus), the birth would have been in the next cycle, 5511-5529, corresponding to the years 5501-5519 of Africanus.

Finally, it is quite arbitrary to imagine that Panodorus thought especially of Theophilus' table and took his starting point there, by doing his operation on the year of the corresponding world at Africanus. It is possible, but he could just as well start from the next cycle (399-417), or from the era of Diocletian, using the 95-year table of the Alexandrian cycle that precedes the table of Theophilus.

As for the Byzantine era, Pvice explains its origin in the following way.

The Alexandrian era had the advantage of providing by means of the division by 19, 28, 532, of any year of this era, the current year of the cycles of the moon, and the sun, and the great Paschal cycle. There was only the indiction which escaped the food, but of only one unit, which it was enough to subtract from the rest of the division by 15 to obtain the current year of this cycle. It was still an imperfection. This was remedied by the creation of the Byzantine era. This was obtained by an addition of 16 years in the Alexandrian era. This very simple solution made the year of the world run with all the cycles that entered the religious and civil chronology of the Byzantines.

Little has been added to Pétau's exposition on the genesis of the great world eras of the Byzantines. There has even been somewhat backwards. Is it not surprising, in fact, to read under the pen of D. Serruys a sentence like this, about Saint Cyril: "Why did he make the year 1 of Diocletian a first year of the lunar cycle, if not because, according to the Alexandrian era, the year 5777 (= Dionysian year 285, 1st year of Diocletian), divided by 19, gave a remainder 1 (1)? Hence his distinction between decennovennial cycle and lunar cycle": whereas in the contrary, as Pétau saw clearly, it is from the decennovennial cycle that the Alexandrian era proceeds and that there is no way to assign it another origin.

Later, the same author asserts that in the *Chronicon paschale* — in accordance with the penetrating thesis of Schwartz — already knew the Byzantine era, since he borrowed from the 77E:V^{70C77}), 07)V^{7F,C}; its justification for the date of 23 March" (2). Assuming, which is not, that it is the same method of calculation on both sides, why should it not be the opposite relationship?

I just talked about the *Chronicon¹Paschale*. Péttau took care of it only to point out his irregularities of calculation in the chronology of the life of Christ (3). Besides, he only knew the edition of Rader where missing the T poy s **which we will talk** about later. It was Van den Hagen (4) who first sought to shed light on the computing and the era used in this messy composition. In seeking the author's aim, he endeavoured, in particular, to unravel the reports of his era.

(1) I. SERRITYS, De quelques ères usitées chez les chroniqueurs byzantins, *Revue de Philologie*, 31, avril-juillet 1907, 151.189, citation p. 182.

(2) *Ibid.*

(3) *De doctrina temporum*, t. II. See the references at the end of the volume, to the word *Chronicon A lexandr.*

(0) VAN DEN HAGEN, *Observationes in Heraclii inperatoris methodunz paschalem, ut et in Maximi monachi computum paschalem neenon in Anonyini chronicon paschale ejusque chronotaxim et inethodum paschalem*, Amsterdam, 1736.

with the Alexandrian era and the Byzantine era. It is, in short, his conclusions that Ed. Schwartz in his article "Chronicon Paschale" of the RE-Pauly-Wissowa (1). Here is the summary.

The Byzantine era was constituted by an addition of 16 years to the Alexandrian era to obtain alignment with the indiction. It predates the composition of the *Chronicon Paschale* since Dionysius the Lesser in 525 marks the lunar cycle of this era. The author of the *Chronicon* aimed to bring the chronology of Christ as close as possible to 5501 by remaining in contact with the secular chronology, which the Alexandrian system ignored. The problem was to find a year where the Easter headquarters allowed to have a Friday for the day of the Passion. It was not found that it was a Friday *XV lunae*, which was the date of the Passion in the Alexandrian era. But the year 5539 of the Byzantine era (= 31 dionys.) offered a Friday *XIII lunae* to March 23. All the effort of the computist therefore tended to prove on the one hand that the crucifixion of the Savior took place on the *XIV lunae*, and on the other hand that the *XIII lunae* of the year in question was in reality a *XIV lunae*. For this purpose, he resorted to a special calculation method, that of r. E 0 ;jV; Zr:/), &. "4/.7,7),0'7PrZT.,Ç, which we know from Saint Maximus.

And to move on to the transformation of the Byzantine era. This, as far as biblical events are concerned, begins on the day of creation in the year 5508 BCE. It cannot be the 25 mars (as in the Alexandrian era), because it is not a Sunday, but only on March 24 or 17. It is the latter that is appropriate, because the first year of the lunar cycle of this era is **march 20**, on which day the recurrence of the Paschal cycle of 532 years place a **Wednesday** (Wednesday is the day of the genesiac week where the sun and the moon were created together).

The *Chronicon Paschale*, on the other hand, puts the creation of the world a year earlier, on March 18, 5509 BCE, which was a Sunday, which brings the creation of the sun and the moon to **March 21** on Wednesday. It was neither a neomenia nor a full moon. In this year which was the third of the Alexandrian cycle, the neomenia was on March 31, from where it follows that the neomenia of the previous lunar month, the one that has in its course march 21, is on the first of March. There is therefore a difference of 20 days between this **March 21** and the said neomenia. It is the **1st March** that serves the *Chronicon Paschale* as the basis for the calculation of epacts. This new cycle of the moon thus constituted, the Chronist finds a name for it: he calls it enneadékaétéride xa [r3. 06G.tv](http://r3.06G.tv), while the Byzantine lunar cycle is called enneadékaé-téride "(/.(7.17Th? I)OELV. Year 2 of the Z'X'7 cycle; /. Oro.v is the year i of the cycle "X.0CTj cpli)acv. These names are intended to compensate for the imperfection of this new date of the beginning of the world. From then on, it remains for the Chronist only to ascend by a unity the Byzantine era with all the elements attached to it, solar cycle, lunar cycle, Easter period.

Schwartz believed that he recognized traces of the Byzantine era previously used in the *Chronicon Paschale* and saw this as proof that the *Chronicon Paschale* era was indeed a transformation of the Byzantine era. But this transformation could not be done without reason. It must respond to an idea, to a preoccupation. Which one? Here's what Schwartz offers us.

The *Chronicon Paschale* wanted to transport into the Byzantine era the correspondence established by Annianos between the days of the Genesiac week and the great evangelical events celebrated by the Church. Therein lies the fundamental reason for this shift in the era, which has led its author to the worst inconveniences. Thus, for the date of christ's baptism. It is about getting for this event on a Thursday, as in the Alexandrian era. The only suitable year was the year 29 AD (= 5537 Byzantine era = 5537 *Chronicon Paschale* era until **March 20**). But the year of the Passion was the year 31 AD, which made it impossible to maintain the three and a quarter years of public life. The Chronist counted the Passover of the year 5537, beginning on **March 21**, as if the baptism had

took place in 5536, so that the year of baptism was counted twice, one for 5537, in order to have the concordance of Thursday, the other for 5536, so that the first Passover after baptism took place in 5537 and thus ensured three years to the public life of Christ until his Passion.

Similarly, it was necessary for the Conception of St. John the Baptist a September 24 which was a *XXIV lunae*. No other free year than 5505 Constantinople = 5505 *Chronicon Paschale*

5 ECB. However, the Chronist, by a calculation based on the transposition of Jewish months into Julian months, manages to lower the date by one year and counts 5506 = 4 BCE. And this allows him to place the event on a Monday, as in the alexandrin system.

And here is the synthesis of the system:

A glance at the various calculations of Annianos, the Chronist and his reconstructed model is enough to recognize that the Chronist strove to obtain the same day of the week as the Alexandrians for the birth of Christ and the related feasts, and if he reproaches his predecessor (*sic* Schwartz) for having made an attempt on catholic holidays, he basically thinks only of the weekdays of this Alexandrian pseudo-chronology, because, as for the dangerous idea of attacking the dates of the month, no one at that time could think of it. The development thus occurred: the Paschal work of Annianos was reworked in an intelligent way in the Constantinople era, maintaining the common chronology of Christ's public life counting three and a quarter years from Baptism to passion. Such a calculation changed the days of the week. Then came the Chronist. He in turn corrected the work so as to restore the symbolic weekdays of the Alexandrians. He achieved this by the great means, the displacement of the era, which he raised by a year. The essential goal was achieved; but it was by missing the exact calculation of John the Baptist's Conception and the required difference between Baptism and the death of Christ, and it was necessary, to make the connection, to resort to chronological cheating.

How should this construction of Van den Hagen and Schwartz be judged?

For an important part, we must recognize the correctness. These scholars were able to identify the Chronist's plan to bring the chronology of Christ back into line with the professional chronology, taking as a support point the year 31 AD, considered the year of Christ's death. They saw the difficulty that this year presented by the fact that Friday, March 23 fell to the *XIII lunae*, while in the year of the Passion of the Alexandrian Christian era, the event was placed on March 23, a *XV lunae*. And they showed how the Chronist came out of embarrassment by taking for the day of the Passion a *XIV lunae* and by transforming the *XIII lunae* of March 23 into *XV* by means of a particular calculation of the epacts which would be that of the 1-zsvz.y.7?, or.jv-:::g.

All this is fair, except for this calculation. One might only wish to know how the Chronist felt obliged to transform the *XIII lunae* into *XV lunae*, "while the form-computists Africanus and Anatole had been satisfied with it and the Byzantines themselves sided with it in the sequel. It is undoubtedly that he did not believe it possible to successfully oppose an *XIII lunae* to the *XV lunae* of the Alexandrians. Be that as it may, it is the fact that matters here, and the intention that it indicates. Our scholars have done a useful job in highlighting them. Unfortunately, that is the only point on which we can agree with them. Everything else is questionable. Everything else, that is to say **everything that concerns the very substance of the problem that is the origin of the era of chronicon Paschale**. Ed. Schwartz believes and thinks he can prove that it can only be explained by seeing it as a clumsy correction and a distortion of the Byzantine era. It is therefore also the age, and thus indirectly, the origin of the Byzantine era that is in question.

I will say it straight away and quite clearly, such a thesis is the most gratuitous and implausible. Please follow our will.

Schwartz's system assumes the already constituted Byzantine era with a regular chronology of Christ, including the 30 years before Baptism, and from Baptism to Passion, three and a quarter years

and four Easter, according to Eusebian tradition, and just as in the Alexandrian era. Only the days of the week of the great evangelical events, apart from the Friday of the Passion and consequently the Sunday of the Resurrection, were not those of this era. Here is the state, as Schwartz exudes it from the correction he considers to have been made by the Chronist. We attach to them the weekdays of these festivals in the Alexandrian chronology, according to Schwartz also, and cthem of the *Chronicon Paschale*. We retain in the years of the Alexandrian and Byzantine eras, for the convenience of discussion, the indictional style employed by our critic.

	Alexandrian era	Byzantine era	Era of the <i>Chron. Pasch.</i>
Design of J.-B. September 24	5501 [8 A.D. Monday	551)5 [5 BC" XX/ <i>V lunae</i> Sunday	5506 [4 BC-Ch.' "(X/ <i>V lunae</i> Monday
Conception of Christ.....	5501 (rç) ap. J.-Ch.] Monday	5505 [4 BC] Sunday	5507 [3 BC] Monday
Birth of J.-B. March 25	5501 [9 A.D.-Ch.] Monday	5505 [4 BC] Sunday	5507 [3 BC] Monday
Birth of Christ	5502 [9 A.D. Wednesday	5506 [4 BC] Tuesday	5507 [3 BC] Wednesday
Baptism of Christ.....	5532 [40 A.D. January 7, Thursday (the 7th instead of the 6th, because of the 6th epago-mène of the 20)	5536 [28 A.D.-Ch.] Tuesday	5536 [28 A.D. Thursday

This table calls for important remarks that we distribute according to the eras.

Alexandrian era. — The years of this era are arbitrarily interpreted according to the indictional year, despite the clear opposition of Georges le Syncelle to which the author nevertheless refers. This distorts the connection with the years of the Christian era for all the dates ~~sokilled~~ between September 1 and March 24 inclusive. Three dates of the painting out of five are in this case: that of the conception of St. John the Baptist which, instead of 5501, must be marked 5500; that of the birth of Christ which, instead of 5502, must be marked 5501, the indications according to the Dionysian era being, here and there, accurate; as for the third, that of the baptism of Christ, it is complicated by a serious misunderstanding (1). It is that in fact, by placing this event in the year 5532, **that is to say, after** his system of reduction, in the year 40 A.D., Schwartz gives only two years to the preaching of Christ, while George the Syncelle expressly declares that it lasted three years (2), which is since the fifth century the norm commonly followed and from which **one never** departs only by excess. Now, it is by such a misunderstanding that Schwartz obtains Thursday as the weekday of Christ's baptism; it is such a misunderstanding which, together with another which we shall indicate in its place (3), is at the basis of his accusation **against the** Chronist for having wanted to keep at all costs this weekday for this event, even by cheating. In reality, the date of Christ's baptism, according to George the Syncelle, is January 6, 5530, which, the year beginning on March 25, translates to: January 6, 39 AD, and puts the event at a Tuesday. In addition, the date given by George the Syncelle is, certainly, common in the Alexandrian era, but it is not the only one. Saint Maximus, indeed, gives to Christ

(1) I omit to make a mistake here, since our scholar is mistaken about the year, the fact that the Byzantines, by adopting the Alexandrian era, did not adopt the Egyptian calendar in any way, and therefore could never place the Baptism of Christ on January 7.

(2) GEORGES LE SYNCELLE, 615.

(3) See below, pp. 62-63.

four years of ministry and expressly puts baptism in the 10th indiction aligned with the age of the world (Alexandrian) and the 11th Byzantine indiction, that is to say in the year 38 (1). In this year, January 6 fell on a Monday. Saint Maximus is little later than the Chronist, and as he appeals against the 7.C:V 70(.77. 2,0; -) Vt. Z4 to the ecclesiastical tradition, it can well be assumed that on this date of the baptism of Christ he was not band apart, and that at least the opinions were free, so that the Chronist had no reason, assuming that he insisted on preserving the symbolism of the Alexandrian dates, to choose one rather than the other.

Byzantine era. — In the table of dates drawn up by Schwartz, we do not really see, by comparing it with the system of Alexandrian dates, that it had enough to cause a change in the era. Given that the Alexandrian date of baptism is not Thursday, Schwartz states, but on Tuesday, just as for the Byzantines, there remain, in fact, divergent Byzantine dates, those of the conception of the Baptist (2), of the conception of Christ, of the birth of the Baptist, all three falling on a Sunday, and that of the birth of Christ which is a Tuesday, while among the Alexandrians the concordances go respectively to Monday for the first events and to Wednesday for the last. Certainly, for the birth of Christ, the Alexandrian concordance of the mercredi, the day of the creation of the sun, is preferable to Tuesday, but on the other hand, for the conception of Christ, or incarnation of the Word, Sunday is much preferable to Monday. And George the Syncelle, who admires the meeting on the date of March 25 of the creation, the Incarnation of the Word and the Resurrection, would have been delighted if, like the creation and the Resurrection, the Incarnation had also been a Sunday. It was among the Byzantines. For these, the two great events that enclose the existence of Christ's lands, the Incarnation and the Resurrection, fell on March 25 and a Sunday. The advantages were thus balanced on both sides, and it is not possible to imagine that one of the two systems exerted such an attraction that it could initiate the withdrawal of the other and a change in the era in which it is expressed. As a result, the supposed correction of the Byzantine era lacks foundation.

What we have just said, we have said it in accordance with the table of dates drawn up by Schwartz. But this painting is far from representing a common system among the Byzantines. It takes great confidence to mark "the" Christian chronology of the Byzantine era prior to the *Chronicon Paschale*, even if one recoils until then the existence of this era, while, apart from the day of the Passion and the ancillary days, there is diversity for the rest among authors as late as Psellos (xle century) (3), Cedrenus (xie century) (4), Nikephoros Calliste (xlve century) (5), not to mention others who, indicating only the birth of Christ, strictly adhere to the mysticism of the number of 5,500 years, such as Suidas (xth century) (6), Theodore Scutariotès (xiii century) (7), Joel (xlle century) (8).

(1) SAINT MAXIME, *PG*, 19, 1252. This passage was not understood by Schwartz. He says that Maximus, similar in this to the Chronist, computes twice the year of baptism, when these are simply two ways of counting the indiction. See, in this regard, ICT Party, p. 205.

(2) It is September 24, date according to SCHWARTZ.

(3) Gertrude REDL, *La chronologie appliquée de Michel Psellos*, *Byz.*, 5, 1929, p. 246-247.

(4) CÉDRÉNITS, ed. Bonn, I, 304-305.

(5) NICÉPHORE CALLISTE, *PG*, 145, 660 C.

(6) *Suidae lexikon*, ed. Ada ADLER, I, 45.

(7) THÉODORE SCUTARIOTÈS, *zpvotz*"f: SATHAS, MICS/tww.z-r VII, 25.

(8) Joel, *PG*, 139, 245 AB. Here is the chronology presented by the authors we have just named:

Psellos: Annunciation (conception of Christ), 25 March 5504 = 5 BC. J.-Ch., Saturday; birth of Christ, 25 December 5505 = 5 BC. J.-Ch., Monday baptism of Christ, 6 January 5506 = 27 AD J.-Ch., Monday.

Cedrenus: Annunciation 5506 = 3 BC. J.-Ch., Monday; birth of Christ, 5506 3 BC, Wednesday; baptism of Christ: logically, because of the three years marked at the preaching: 5535 = 28 AD, Tuesday, but by mistake: 5536 = 29 AD, Thursday. (We count here the years of Cedrenus from March 21. Although indeed

And as this chronology is postulated as substrate to what are presented as corrections of the Chronist and that we give as a motive to these corrections an intention that can only be proved by these corrections themselves, namely the intention to place in the Byzantine era the mystical concordances of the Alexandrians, we are locked in a circle of mutually conditioned suppositions and, consequently, without a way out towards a real conclusion. There is no need to press any more.

Era of chronicon Paschale. — Two dates are to be examined here: that of the conception of St. John the Baptist and that of the baptism of Christ. Let's first look at the first, the conception of St. John the Baptist. Schwartz assures us that the Chronist had the preoccupation of finding a *XXIV lunae* and a Monday for September 24, the date of the event. I do not know how he read the *Chronicon Paschale*, but it is written in full, and not in numbers, that "on the 23rd (it is September), Sunday, xxive jour of the moon, Zechariah returned to his house". The 23rd, not the 24th (i). In fact, and the remark also applies to the Alexandrians, it is September 23rd that interests the Chronist, not the 24th, because it is September 23rd that the Byzantine liturgy and also the Coptic liturgy assign to the conception of the Prodrôme. The Chronist therefore did not have to look for either a Monday or a *XXIV lunae*. If he deals here with the lunar month, it is to justify the date of the conception of the Baptist to September 23, because it depends on the feast of the Atonement that the Jews celebrated the seventh month of their lunar calendar. And we can see from the two ratings 23 September and *XXIV lunae* that he had no concern whatsoever about making the calendars coincide. As for Monday, it can no longer be discussed: the event being on September 23, it is Sunday that replaces it. It may be said that the Byzantine date being therefore postponed to Saturday, the Chronist wanted to correct it to conform to the Sunday of the Alexandrians. Obviously, we can say that we can reduce everything to a preconceived system. The wrong is precisely that it is a preconceived system; it is that the Byzantine dates that are corrected by the Chronist are part of a purely artificial construction, because there was never in the Byzantine era, at least until the 10th century, a common chronology for the birth of Christ and related events.

Let us now turn to the date of Christ's baptism. It is quite true that the Chronist, of one part, counts three years of the life of Christ from baptism to the Passion and, in accordance with this, expressly puts baptism in the year 5536 and, on the other hand, places this event at a Thursday, an incidence which is not that of this year, but of the following year 5537. Should we conclude from this that he wanted at all costs to obtain a Thursday to apply to the event the Alexandrian concordance? But, as we have seen, the real Alexandrian date is not a Thursday, it is a Tuesday. The Chronist therefore had no reason to imitate the Alexandrians and did not imitate them by putting baptism on Thursday. So where does the choice of this day come from? oh! it is not a choice. Quite simply, man, because it is human, was wrong. He has forgotten in his calculation the prelab operation of removing a unit from the years of the world; that is why he meets at the end of the day on Thursday (2). As he is attentive to mystical parallels, an idea crosses his mind. Thursday? but "it is the day when, at the beginning of the world, the Christ, lord and creator of all things, made the waters produce reptiles animated by living souls, and it is this same day when, at the end of the centuries, he himself was baptized in the water and sanctified the water and made it salutary and invigorating for us". This find belongs to the Chronist: he did not borrow it.

in his Chronicle he equals by system the years of the world with the indiction, however, for the events of the life of Christ, he simply transposes the dates of the *Chronicon Paschale* by observing the same beginning of the year.)

Nikephoros Calliste: Conception and birth of Christ, as Psellos; baptism, date not indicated, but logically 5536, Tuesday. Suidas, Theodore Scutariotès, Jota: birth of Christ, December 25, 5501 = 9 BC. J.-Ch. in the indictional style, Wednesday; 8 BC J.-Ch. in the style of March, Thursday.

(1) *Chronicon Paschale*, 375.

(2) *Ibid.*, 394-395.

It was the Tuesday that the Alexandrian system offered him and it is pungent that it is precisely the Tuesday that the year 5536 assigned by the Chronist to baptism requires, so that, if one wanted to use the process of Schwartz, one would conclude that the Chronist committed a cheating to avoid meeting on the same day as the Alexandrians.

Let us now return to the date of christ's birth, the only divergence that remains to be considered on the real plane, since we could not count as special divergences the other dates that are related to him and are in determined connection with it (conception and birth of the Prodomé and conception of Christ). This date is marked in the table: December 25, 5506 = 4 BC, mardi. On this date 5506, I see no other source than Cedréus or the one followed by Cédreus. But it is not a Tuesday that this one designates: it is a Wednesday. It must be concluded from this that it counted this year from March, while tuesdays follow the year measured on the indiction. The concordance of Wednesday, in any case, and therefore also that of the anteriority of the Byzantine era in the *Chronicon Paschale*, is undoubtedly the one that must have been the first to come to mind. It was traditional and was recommended by the symbolism that we know. Unless we can't, it's the one we had to wait for. Now, of impediment here, period. Quite the contrary. The Byzantine year 5506 with beginning in March, or 5507 with beginning in September, offered a December 25th on Wednesday, which, compared to the Passion of the year 31 AD, common in the East before Panodorus and Annianos, was at exactly the same distance as among the Alexandrians (Alexandrians: birth of Christ, 5501 (9 AD); Passion, 5534 (42 AD), distance: 33 years; Byzantines: birth of Christ, 5506, begun **March** 21 (3 BC); Passion: 5539 started on **March** 21 (31 AD), distance: 33 years). What could be better and what other solution could come to hope? This date of 5506 started in March corresponds to that of the *Chronicon Paschale*: 5507. Will it be said, because it is also *chronicon*, that it is a correction of the original date of Tuesday? We would then be in the middle of arbitrariness, because this Tuesday remains unexplained. The most normal step, and one that seems almost obvious to me, is that the Chronist will have, the first, in the Byzantine era of the time, marked, just like the Alexandrians, and without having to correct anything earlier, the birth of Christ on **December** 25, Wednesday, 5507 (his era), the Passion being in 5540; then, that Cedrenus, using it, reproduced this same chronology by shifting the figures of a unit to express it in the Byzantine era proper: birth of Christ 5506 and Passion 5539, but keeping for these years the beginning to **March** 21; and that it is only then that these years were interpreted as indictional years, which resulted in the date of birth and the day of the week of a day being postponed by one year, but that it was only then that these years were interpreted as indictional years, which resulted in a year's date of birth and the day of the week of a day. : hence the incidence of Tuesday, which we meet later for the birth of Christ (i), without, it is worth remembering, it being uniform.

After that, what remains of the corrections reproached to the Chronist by which he would have corrupted the Byzantine era? nothing! There could not be matter, since, on the one hand about baptism, in the system of the three years of preaching of Christ, January 6 of the year 28 AD (Byzantine year 5535 started in March or 5536 started in September) is a Tuesday as is a Tuesday also January 6 of the year 39 AD (Alexandrian year 5530 started on March 25), and on the other hand about the **birth of Christ** by observing the same length of life, one ends up in both eras to put the event on Wednesday (Alexandrian year 5501 and Byzantine year 5506, beginning in March). Other dates which depend on the date of birth do not require examination.

At the end of this discussion, and in the presence of such a negative result, we can only deplore so much ingenuity spent in pure waste. A few very simple thoughts would have been dispensed with.

(i) This is the one given by *wirth's Ekloge, A us orientalischen Chroniken*, Frankfurt-a.-M., iS91, p. p. 14.

Even assuming that corrections would have been necessary to obtain the Alexandrian concordances, it is not comprehensible how the change of era could serve this purpose. The mere change of era in no way alters the actual relationships and, consequently, does not disjoin the concordances. The day marked for the birth of St. John the Baptist is both a Monday in the Byzantine era in 5506 and in the chronicon *paschal era* in 5507. What changes the ratios and concordances is the change of year in the same era or relative to the same era.

In addition, it is not understandable that the perfect system of the Byzantine era achieving the agreement with all cycles, indiction, bissexté, lunar cycle (zourà r.pl'icrtv), solar cycle (xxT& cpôcnv), and collecting them all in the great cycle of 532 years which brings back all the recurrences at once, could be substituted that of the era of chronicon *Paschale*, disagreeing avec l'indiction and the bissexté, in agreement only with the lunar and solar cycles ./7.7& 0CC!. V created for this era. The work of the Chronist is unimaginable if we take it as a correction of the Byzantine era; it can only be conceived before it; and this can only be its perfecting.

Schwartz believed, however, that he recognized traces of the Byzantine era in the *Chronicon*. This is the place to look at what the state of the matter is.

Here is a first case. The Chronist places the first Passover ju ive the year 81 of Moses — 114 of the Paschal Period = 3838 = 1672 BC and calculates it on Sunday, April 13 *XIV lunae*. However, this is only true if the calculation is done in the Byzantine era, because then it means that the year 114 of the Byzantine Paschal period = 1671 BC, is the same as the year 115 of the Easter period of *Chronicon Paschale* = 1672 BC. Why then did the Chronist not calculate precisely the Passover of 3838 (14 Nisan = Monday, March 25)? It was because he did not want to destroy this **wonderful** coincidence, that the first Jewish Passover fell on a Christian Sunday. It follows from there that, if the year 3838 Constantinopolitan was counted, the Chronist reworked an I czo--z'ntov based on the era of Constantinople and marking the main **historical** Easter s of the period of 532 years following in this the example of Hippolytus and Annianos. One can go further and assume that this Ily.G. ':/,),tov used by the Chronist had been established for the express purpose of reworking that of Annianos after **the Byzantine era** (1).

Regardless of the gratuity with which the Chronist is attributed an Easter period based on its own era — we will return to this later (2) — more than one error is to be noted in this account.

Schwartz had to go through the texts in a hurry. While it is true that the Chronist equals Moses' 81 to 3838, it is not true that on page 139, where Schwartz refers, he calculates that year's Passover. The calculation obviously concerns the Pâque of 3839. It is clear that Schwartz has let deceive by the first words of the calculation on page 139: Té0rµrv TA ,yo.)) \-/', xAl TrApix. Te)v t0'. But if he had continued his reading on page 140, lines 5-9, he would have seen that the author expressly said that it was indeed the year 3839 begun **on** 21 March that he intended to calculate, and that that is why he increased the division by 19 to 3838. He even says that if it were the year 3838, he would have, by decreasing by one unit, divided 3837. Schwartz does not seem to have noticed that the Chronist when he wants to give the Passover of a year and his weekday or the weekday of an event, most frequently receives to the method based on the xcer&cAo-tv cycle, which requires the prior operation of subtracting a unit from the year of the world. This is the one he obviously uses here for the year 3839.

(1) *RE*, t.c. 2470.

(4) See p. 66.

He tacitly subtracted it from page 139, but we see that he did so by his express statement on page 140.

Schwartz was still deceived by the fact that year 2 of the Exodus (= Is not marked in the embossed text like any other. he believed that year i (=81 of Moses—=3838) commanded all subsequent pages up to page 141; but he should have noticed that on this same page, the sequence of years is 3, 4, 5, 6(= 3840, 3841, 3842, 3843). Certainly, at least the pages immediately preceding this indication must belong to the year 2 (= 3839), and they are the ones that contain the institution of the Passover. The Chronist, moreover, distinguishes very well the deux years, 3838, the one when Moses and his brother presented themselves to Pharaoh, and 3839, the one where the Passover took place (p. 140, 1. 6-7). In addition, this year 2 of the Exodus, not to be marked in relief in the text, is nevertheless very clearly indicated by the Chronist who writes in full, page 133, line 13: Tol¹.) -7cp ,yc07\~r\~' (sic) ye:va.scoç x6Eti,ou Ccpx~r\~v aqX,p6'rt c'ez6 zof.'! Locp-riou ;i:v6c; èW~or zr.r.e.) 6 xiiipcoç 7p6ç Mcoijdii... There is no doubt here that

the year 2 of the Exodus is not the one that the Chronist has in sight. This year equals 3839. So we can take for certain that the date "-(0,-,1', which we have followed with a sic, is a fault for ,y6)1,0', since 3838 belongs to the first year of the Exodus. As it is discussed from page 119, and that the formula Tol:r:cp (9: g e: C. is presented at page 133, it should have warned that the author, whose usual transitional formula this is, was moving on to a new year. It's there, before

that the indication of year 2 should be highlighted.

It is therefore beyond doubt, and this by the most express statements of the Chronist, that he never had in sight for the institution of the Passover than the year 3839, and that this alone is the subject of his calculations, and that one cannot on this subject allowit neither confusion nor cheating. Trace of a Byzantine era in all this, period, if not in the abused spirit of Schwartz.

Another trace of the Byzantine era lies, according to Schwartz, in the calculations of the Chronist concerning the end of the Paschal cycle referred to the Passion (1). Here's how he discovers it.

The Chronist states that in the year 35 of Justinian = 6071 = 562 A.D., ends the last year of the period of S32 years begun in the year of the Passion. That is correct; for the Byzantine era as for that of the *Chronicon Paschale*, the year 31 A.D. J.-C. = 554o *Chronicon Paschale* —

5539 Byzantine, is the only possible date of the Passion. Then, however, a singularly shaky calculation is established. The stages of the numeration are: 1) The 5th year of Emperor Philip = = 5758 *Chronicon Paschale* = 5757 **Byzantine** = 249 AD = 219 since the Passion; 2) 8th year of Constantine = 5822 *Chronicon Paschale* = 5821 Byzantine = 313 AD = 219 + 64 = 283 since the Passion.

Now, the 5th year of Philip is equalled to the consulate of Decius and Gratianus; but this consulate, which is actually placed in 250, is in the splendor of the *Chronicon* in the 4th year of Philip, 248. As for the 8th year of Constantine, it is equalled to the consulate of Volusianus and Annianus which is in 314, and to the inaugural year of constantinian indictions which is 313. How can we explain this disorder? Here it is: the year 31 — 5539 Byzantine is the 219th year of the Easter period based on the Byzantine era; also the year 249 after Christ is the 219th year after the Passion. And 313 is taken as the first year of constantine's first indiction. These are the original dates. They were lowered by one year because, in the Easter period of the *Chronicon Paschal era*, the year 31 AD is the year 220 (from 5,540 divided by 532, remains 220). The date of the first indiction 313, which has remained, testifies to this operation. Obviously, the calculation has been blurred again because an attempt has been made to reintroduce the year 219 instead of 220; from there comes the false consulate of 248 and the

(I) *Chronicon Paschale*, 686-687.

difference of 65 years between the latter and the said 1 indiction. This corruption fell to a scribe, but the first to the Chronist himself. This shows how an ancient *Chronicon Paschale*, clear and fair, was spoiled (1).

This explanation by Schwartz, which cannot, of course, be denied the merit of ingenuity, is based, it must be said, on completely gratuitous and even implausible suppositions, as well as on serious misunderstandings affecting the texts examined.

It is, in the first place, very surprising that to explain the alleged lowering from 219 to 220, **we bring in** the equation: 31st Dionysian year of the Passion = 220 of the Easter period of the *Chronicon Paschale era* (5,540 divided by 532, remains 220), because these two numbers do not relate to the same chronological area: one, 220, marks the distance between 532o and 5540, and the second, 219, between 5540 and the 5th year of Philip, 5758 (= 249 Dionysian era).

Moreover, even counting 31 as 220 of the Easter period of the *Chronicon Paschale era*, **one does not change the distance between** one's own dates. Indeed, between 554⁰ (= 220 Easter period = 3 Dionysian) and 5758 (= 1 i next Easter period = 249 Dionysian), there are not 220 years nor 219 but 218. But from this, further.

Let's go deeper. We see Schwartz attribute to the Chronist equation 31 AP. J.-C. = 220 of the Easter period of the *Chronicon Paschale era*. But did the Chronist use such a period? If it is non, Schwartz's hypothesis is basically overwhelmed. Well, it is not. Indeed, not only does our author never use it, but he expressly excludes it with several others that he lists, and opposes them his own (from the year of the Passion) (2).

Schwartz finally supposes a subsequent operation of a scribe to reintroduce the number of 219 instead of 220, operation consisting in reversing in 248 the consulate of Decius and Gratianus and changing the chronological distance from 64 to 65. This is a very unnecessary assumption, because nothing prevents this supposedly new data from belonging to the Chronist itself.

Indeed, if it is true that the splendour of the *Chronicon* mark the consulate of Decius and Gratianus in the fourth year of Philip, this **makes no difference with the text** supputing the distances where it is marked in the fifth year of Philip, because in the splendor the fourth year means in reality and for the author of the splendors himself a fifth year, because the process of splendour does not count the first year because, begun under the previous emperor, it remains inscribed in his name. We are thus exempted, to make reason for the divergence in question, from resorting to the intervention of a scribe.

We have discussed so far based on the figures provided by Schwartz, but it turns out that this basis itself is false. One thing, in fact, is particularly surprising in the processes of our scholar, it is that having to appreciate the calculations of distance of the Chronist, he starts from figures that are not his own. He attributes to him, in the supputation of the time elapsed since the Passion until the fifth year of Philip, the total of 219 years while the text bears expres-

218) (3). This number of 218 provides us with further evidence of the impossibility and the absolutely arbitrary nature of

Schwartz's hypothesis, for which the total, original in his eyes, of 219, would have been replaced under the pen of the Chronist by 220 and then restored thanks to the intervention

(1) SCHWARTZ, *art. cit.*, 21.70-2471.

(2) Schwartz also made this mistake with regard to the Exodus. We have seen, in fact, that among the equations of the year 5338, he places the year 114 of the Easter period, while no more there than here there is any question of it and could not be questioned in the Chronist. His own Easter table, starting from the Passion, could very well serve him for the Old Testament. It was enough for him to calculate the interval between 5540 (date of the Passion) and, for example, this is our case, 383S or 3839, to know, by means of the cycle of 32 years, the weekday and the solar monthly calendar of the XIV lun2e of Nisan of both of these years.

(3) *Chronicon Paschale*, 687, 1. 3.

of a scribe. So it was as if Schwartz, excuse that word, had had the berlué and thought he saw, instead of the number 218, the number 219, which suggested his fragile combination. And since it is also from this misunderstanding that the supposedly primitive number of 64 comes, we see what to think about it.

It is another surprise to see Schwartz match Philip's fifth year to the year 249. Philippe began to reign in 244 (a law of 13 March 244 is in his name, and the world and Paschal year begins on 21 March); the year 249 is therefore the sixth of the reign. The fifth year is 248. And this corresponds precisely to the indiction II marked in the splendors to the fifth real year (fourth according to the numeration for the reason we have said). There can be no doubt that it was this year 248 that the Chronist had in sight, despite the names of the consuls who actually belong to the year 250. The mathematical succession of indictional years, even projected in the past, does not allow any error on this point. The situation is different for consulates, and all that can be asked of the Chronist about them is not to contradict oneself.

The terrain being now cleared, it is easy to see the accuracy of the assumptions of the Chronist for the various slices established by him in the Easter period of 532 years. Indeed,

"of the fifth year of Philippe, comprised, ecne,

"XY"). CATO3 e. Xiit.7.01.) T03 i.01)Vi,OpOÇ...

going back to the year 19 of Tiberius, where the Passion took place (i.e. the year 31), there are, says the text, 218 years; and the fifth year of Philip (obviously not counted), going down to the eighth year of Constantine (counted), where was put the first indiction (i.e. the year 313)..., 65 years ago" (1). That this eighth year of Constantine must be counted, the proof is that the calculation is thus continued: "From the ninth year of Constantine... until this tenth indiction, Justinian's 35th year... (i.e. the year 562) (also counted, in accordance with the previous mode, and also as the last of the 532-year cycle, the author of which marks the completion), 249 years ago. Nothing could be clearer and fairer than these various calculations, and it would be to distort them to assume other numbers originally, such as 64 instead of 65.

Thus, nothing remains of Schwartz's ingenious combination to find a trace of the Byzantine era in the Chronist's speculations about the Easter period ending in Justinian's year 35. The only difficulty that remains concerns the consulate of Volusianus and Annianus that the Chronist, page 687, 3-5, puts in the eighth year of Constantine and the first indiction, so in 313, while in the pomp, page 522, l. 19, as in reality, this consulate is in 314. It will be invited that this data, cut off from everything else, cannot carry much weight in the balance. It can either be attributed to a distraction from the Chronist, or, which is preferable, adopt

the following explanation by E. H. Kase (2). The text being:

Ti) Kwvo-ravi-:vob

T03 tisyia-roo rxo-t)1(.,g, x.,7.0' 6

136Xoul-ty.voi3 xcX. 'Avccx.ve.) (3),

there is nothing to prevent us from understanding that it was under the consulate of Volusianus and Annianus, 314, that the Constantinian indiction was instituted, and that its beginning was **fixed at the previous year, 312/313, the 8th year of Constantine**. And why then, it will be said, and *not in 314, the year of the institution? Because 312/313 was the first year of the current 5-year indiction, previously in use.

In order not to leave anything unanswered, we must examine a final clue which, according to Schwartz, shows that **the Chronicon Paschale** assumes the Byzantine era and intends to correct it.

Speaking of the different cycles of 532 years invented to indicate the return of the Passover to the

(r) *Chronicon Paschale*, 686, l. 20-687, l. 5.

(2) E. H. KASE, The Dating of the first fifteen year Indiction Cycle, *Trans. and Proc. Bitter.*

Assoc., 61, 1931,

p. LXI.

(3) *Ibid.*, 687, l. 3-5.

the same monthly and weekly date, the Chronist mentions one, pages II-12, which gives exactly the Paschal dates, but falsely counts the years of the world and the Incarnation, and, consequently, declares erroneous the days of ecclesiastical feast, such as the Incarnation and the feasts related to it. This criticism, according to Schwartz, can only concern the weekdays on which these events occurred, because at that time there could be no question of tackling the monthly dates. The cycle and era thus referred to can only be the Byzantine cycle and era. Thus, the *Chronicon Paschale* assumes the Byzantine era and the intention to reform it (1).

The argument would have to be considered if such an exegesis did not go diametrically against the very text of the *Chronicon*. Because it is on the monthly dates that the Chronist expressly insists. Let us judge: "For the other festivals (other than the Passover), they (those who use this cycle and this era) are quite wrong: such, the Nativity, that the Church of the Christ, absolutely without error, &71: 2\2')&i." · /2V, feast day of December 25; and the Annunciation, which it celebrates in an unassailable way,

on March 25; and the Birth of Jean Prodrôme and Baptiste, which she celebrates, *i)p0i;::;*, on June 24; and the Rencontre which she celebrates without being mistaken, &acpa.?,(74, february 2 (2). This concern to affirm for each of the festivals that it is well celebrated on its true monthly date, shows obviously that it is on this that the criticism formulated by the predecessor of the Chronist was directed, and therefore, that the cycle and the era referred to here by him are surely not the Byzantine era and cycle, where these festivals fell on the monthly days indicated above, but belong to another system which it is difficult to identify (3).

There would still be to examine the question of the -rpozoi which are in the *Chronicon*, and whose solar and lunar cycles, according to Schwartz, are those of the Byzantine era. This complex problem will have its place in the next chapter.

But we cannot end our criticism of the Schwartz system without saying a word about what is its premise, namely, the anteriority of the Byzantine era in the *Chronicon Paschale*. For him, it is certain, and the certain proof of this is the presence of the lunar cycle of the Byzantine era in the Paschal tables of Dionysius the Lesser. This proof is null and void. No, because something else is the cycle, something else is the era. None, because it does not take into account the distinction of XCU7r cycles; UCTLV and xoc-ret (A ', which Schwartz takes for an invention and finasserie of the Chronist, but which, on the contrary, responds to the spontaneous representation of the mind touching the astral course of the two luminaires in the first year of their creation. According to this view, the cycle 7.y.zet. ?1') o-tv starts in the second year of creation and era. We marked this distinction in the reform of 353. The wx-rec piiiav cycle then obtained is precisely the lunar cycle indicated by Dionysius the Little. It is true that it works with the Byzantine era, but this can be explained, and we will explain it thus, as being the effet of a subsequent systematization, and does not imply in any way that this era existed in the thought of the Chronist and before him.

Thus falls the last rampart that could protect the synthesis of Schwartz. From this synthesis nothing remains of what constituted its substance, but only what is separable and can be integrated into another.

It will therefore be necessary to look for another origin of the era of *chronicon Paschale*. But already there is a strong presumption that it predates the Byzantine era, because if this one, which solves with ease the same problems and moreover offers the alignment of the years of the world with all cycles, including

(1) SCHWARTZ, art. cit., 2468-2469, 2472-2473.

(2) *Chronicon Paschale*, 21-22.

(3) Would it be the Armenians, who had the same cycle as the Chronist, but did not celebrate the aforementioned festivals like the Byzantines, or, as we will say in chapter VI, supporters of the era of Panodorus, who would have had for the chronology of evangelical events of days other than liturgical dates?

the indiction, had already existed, how to believe that this one could then have even been imagined? For us, there is no doubt that the era of chronicon *Paschale*, as we will show below, is the first world era of the Byzantines, which could be called the protobyzantine era.

RÜHL'S ASSUMPTIONS

Other modern authors have also dealt with the problem, with less audacity than Schwartz. They sensed that the *Chronicon Paschal era* preceded the Byzantine era, but did not explain its origin. Fr. Rühl, whose work predates Schwartz's work that we have analyzed, suggests that the Byzantine era may not have arisen all of a sudden, but may have been the work of several chronographs working one after the other. Such a conception is contrary to the essence of a world era, which can only appear with all its characteristics at once. From this progressive elaboration Fr. Rühl presents clues or traces (*Spuren*) in the *Chronicon Paschale*. A first case concerns the *vicennalia* of Constantine (1). The *Chronicon* says that 5833 years have passed until these *vicennalia*. However, they took place, according to the *Chronicon* itself, under the consulate of Paulinus and Julianus, that is to say in 325 (the date is right), the very year of the Council of Nicaea. We therefore count the difference of 5,508 years with our era, a difference that is that of the Byzantine era (2). This argument is worthless, because if 5,833 years passed until the *vicennalia*, it follows that it was in 5834 that they were celebrated. This year began on March 21, and the 20th anniversary of the advent of Constantine was in May. The year 325 thus includes part of the year of the world 5833 (from January 1 to March 20) and part of 5834 (from March 21 to December 31). The *vicennalia* having taken place in 5834 = 325 of our ère, are therefore well dated according to the era of the *Chronicon*, not according to the Byzantine era.

A second clue is in the fact that the world year 1 of the *Chronicon Paschale* which is also the year 1 of a lunar cycle and a solar cycle begins on March 21, while the Byzantine year begins on September 1. The alignment of the year of the world with the Byzantine year was actually undertaken later (3). Rühl suggests that this would be the origin of the Byzantine era. We recognize, and this is undeniable, that a systematization of this kind has taken place, but it is not the era of *chronicon Paschale* that has been the object, it is, as we shall see later, the Byzantine era itself, which has already been constituted. The eras, in fact, are linked to the cycles, and the cyclical years are linked to Easter. Systematization, as far as the *Chronicon Paschale* era is concerned, would have brought the beginning of the world year to the beginning of the current irrational year, i.e. to the preceding September, and thus retained the same cyclical year and the same Passover, and not to the following First September, the beginning of a new year of taxation covering a new cyclical year and presenting a new year dating from Easter. The alignment of which Rühl speaks therefore does not show the true relationship between the *Chronicon Paschale* era and the Byzantine era and does not explain the origins of either. And it is probably this that did not satisfy Schwartz, who thought he could explain at least the origin of the *chronicon paschale* era.

Rühl was probably not satisfied with his results and continued to reflect on the problem. Barely a year after the publication of his book, he gave a new explication. Intrigued by the presence of the *circulus lunaris* in the Cyrillian Paschal table, he thinks that the origin of the Byzantine era would be easily clarified, if we started from this *circulus lunaris*. This one, he notes, begins 16 years before the world era of Panodore. By taking it as the beginning of the world, one

(r) Fr. "Rühl, *Chronologie*, 194-195.

(2) *Chronicon Paschale*, 524-525, 527.

(3) Fr. Rühl, *Chronologie*, 295.

obtained, just by this, what one wanted, and one had only to move the solar cycle so as not to be embarrassed by any difficulty.

"Now," continues our author, "the *circulus decemnovennalis* of the Alexandrine and Occidental Paschal tables coincided with the first year of Diocletian, and this provision seems intentional as well as natural, if we consider when the Paschal Table of the Alexandrians was born established to serve as a rule in the future. If the Alexandrians also marked a **different *circulus lunaris***, there can be no other reason for this, except that such a lunar cycle differently "epochized" already existed before (1). »

The "epochization" here refers to the connection of the cycle with a system of chronological numerals to continue or era, and the era here in sight is the Byzantine era, whose antiquity would thus be demonstrated by the knowledge that the Alexandrians had of it when composing their Paschal tables.

If now we want to know where the *circulus lunaris* that was revived from the Byzantine era comes from, we are told that it is consistent with the lunar cycle of the Jews, but on the origin of this one, no clarification is made.

What about this new attempt to explain the Byzantine era?

The central idea, namely, that the era was obtained by aligning the beginning of the world with the lunar cycle, is certainly correct (it was moreover that of Pétau for the Alexandrian era), **and the present treatise responds to it, but that things in Rühl's exposition remain unexplained or require redress.** We mark them in order.

1. First of all, we repeat, there is no explanation of the origin of the lunar cycle, presented comme foundation of the Byzantine era. However, an explanation of the origin of an era by a cycle is incomplete if one does not also explain the origin of this cycle.

2. There is also no attempt to explain the time of this creation of the Byzantine era by means of the lunar cycle, nor of the circumstances that led to it. We only see that it predates the Cyrillic Table.

3. This antiquity, which is thus agreed in the Byzantine era, makes inexplicable, as we have already indicated, the origin of the chronicon *paschal era*.

4. There is no solution or attempt at a solution, no look even, to the fundamental problem, absolutely inescapable, that constitutes, for the establishment of an era by the cycle, the insertion in this era of the traditional date or of a suitable date (solar monthly day, lunar day, connection with the civil chronology) for the Passion of Christ.

5. As for declaring that the presence of the *circulus lunaris* in the Alexandrian Paschal tables next to the **Alexandrian decemnovennial cycle** can only be explained by the connection of the *circulus lunaris* with an existing chronological system different from that of the Alexandrians, this reason is based on a presupposition that is, to say the least, questionable. From Easter tables to Alexandrian cycle, we know of no others, and still, it is indirectly, that of Theophilus of Alexandria and that of his successor Saint Cyril. They are therefore only to be considered. One can be sure that the Table of Theophilus, where only the essential elements for the determination of the dates of Easter entered (see above, p. 38), did not contain the indication, quite incidental, and really useless for this but, of the years of another cycle. That of Cyril, which was only a replica in honor of Theodosius II of that established by Theophilus in honor of Theodosius I, **must** have resembled him, and the *circulus lunaris* had no more reason to appear. It is known only through that of Dionysius the Little, who, itself, proceeds only from a derivative. But Denys the Little expressly says that he added the three

(1) Fr. Rijur, Der Ursprung des jüdischen Weltalters, *Deutsche Zeitschrift für Geschichtswissenschaften*, N. F. 2, 1897/1898, Freiburg-i.-Br., 1898, 185-186.

the following indications to his model: the year of Christ, the indiction and the *circulus lunaris* (i). Thus, according to all we can know, the presence of the *circulus lunaris* in the Alexandrian Paschal tables is reduced to being a presence in the Paschal Table of Dionysius the Little. It would be foolhardy, and no one will think of it, to report to Dionysius the Little the intention attributed by Rühl to the Alexandrians, to have wanted, by inserting the lunar cycle in his Table, to mark the difference of his cycle, the Alexandrian, with a cycle differently "epochized". The difference of "epochization" is for him only between the years of Diocletian and the years of Christ, the latter to replace these. In such a state of affairs, Rühl's argument, lacking its essential presupposition, falls to nothing.

What remains of Rühl's presentation? A core of theoretical explanation, but nothing valid as a historical explanation.

After Rühl, it is worth mentioning A. Mentz, who, in his *Inaugural-Dissertation*, was led to judge the Schwartz system (2). It is fair to say that before us he declared it unseated, although not all of his remarks are relevant. He noted Schwartz's error concerning the Hebrew Passover of 3839. He rejected his calculation of the "stages": 5th year of Philip, 8th year of Constantine. In his eyes, the argument is ineffective because, for this time, the list of consuls of the Chronist is not assured. This answer, however, is not sufficient, because it is precisely a question here of comparing the data of the Chronist itself.

In addition, A. Mentz refuses to acknowledge an admission in the Chronist of the imperfection of his system in the fact that it establishes the first year of its era as *suatv* year and the next as *year* i x.cura pl'xrcv. He sees this simply as proof that the Chronist knew the starting point of the *circulus lunaris*. And since St. Cyril also knows him in his Paschal table, one should logically, adds Mentz, consider it as a reworking of a Paschal table in accordance with the Byzantine era; something of the greatest implausibility. Regarding this observation, we recall first of all that the original Table of Cyril, according to all that is known, must not have contained the *circulus lunaris* (3); we then say that there is no parity in both cases. In the Cyrillian table of Dionysius the Little, the only one to have them, the two cycles are very distinct and simply juxtaposed for comparison and, moreover, they are unrelated to any era, instead of in the Chronist the two cycles are organically linked together and related to the world era. Admittedly, Mentz is right to find Schwartz's deduction affecting the two *xac-cck* cycles (Macv and xoc-rck pl'icycv) inconsistent, but he himself presents no explanation of this duality and does not even seem to have become aware of the true nature of the problem.

Finally, Mentz has left out of his consideration the argument drawn from the Alexandrian concordances attached to the events of Christ's life other than the Passion, on which we have dwelled at some length.

The problem of the *Chronicon Paschale*, as well as that of the Byzantine era, was also examined by D. Serruys, in his study *De quelques ères usitées chez les chroniqueurs byzantines* (4). Here are his conclusions in brief: the *Chronicon Paschale* system comes from, as far as the distinction of cycles is taken = *Ta' Uctv* and *xOE, TA yl'icrt.v*, the felt need to promote the fusion of contradictory sources: the way was to move from one cycle to the other according to necessity; and as far as the era itself was concerned, a maladroit simplification which involved the addition of a unit to the Byzantine era

(1) KRUSCU, *Studien II*, 67.

(2) A. MENTZ, *Beitriige*, 1900, 10-15.

(3) See previous chapter, pp. 38-39.

GO Dans la *Revue de Philologie*, t. 31, 1907, p. 151-189.

already invented, according to him, by the *Chronicon Paschale*, and thus constituted the era of the *Chronicon Paschale*. In different ways, Serruys thus joined Schwartz's conclusion that the *Chronicon Paschal era* **came from a change in the Byzantine era**.

This system is based on very fragile foundations; the presentation also contains a number of errors and confusions alongside useful information. To refute them one by one would be long and sumptuous. All those that interest our subject will be almost naturally straightened out by the positive part of our study.

THE PROTOBYZANTINE ERA

THE TPDXOI OF *CHRONICON PASCHALE*

The era of 5509, that of the *Chronicon Paschale*, has so far had a very bad reputation. Schwartz blamed the Chronist for the era employed by him, and believed that it was only a clumsy correction, a distortion of the authentic Byzantine era (1), resulting from the intention of bringing the Alexandrian symbolism of the days of the week back into evangelical events. We have seen what to think of all this critical effort. Schwartz's authority imposed them. Without sharing all his judgments, and while even repeating part of his argument, A. Mentz does not leave only to place the era of the *Chronicon Paschale* among the eras he calls pseudo-Byzantine (2). As for us, moving forward, we do not hesitate to see it as an authentically Byzantine era, the primitive world era of the Byzantines, and we hope that we will not refuse, after our presentation, to give it its real name: protobyzantine era.

The world eras had to be based — the assertion is not absolute — on lunar cycles. We have direct proof of this for Hippolytus, for the author of the preface of the Ms. of Cologne to the cycle of 84 years, probabilities for Clement of Alexandria and Eusebius, a presumption for Africanus, a learned chronographer whose era coincides with the cycle of Anatole.

As for the latter, we do not have direct evidence that he related an era to his cycle, but this is very likely because of the coincidence we have just said with the era of Africanus. What is certain anyway is that its 19-year cycle and the corresponding world era are the basis of all the world eras employed by the Byzantines, because the change in the beginning or first year of the cycle led at the same time to the change of world Father, and the division of eras basically comes from the diversity of these changes.

Now, as we have seen, two major reforms changed the first year of the cycle: one, that of Alexandria, placing the beginning of the cycle in the first year of Diocletian (284-285: incipit 1 Thôth 284), the other, placing the beginning in the year 345, and postponed for the reason and in the manner indicated above to the year 344.

Before the computists of Alexandria had established their era around the year 400, those of Constantinople, half a century earlier, had already created theirs, at the same time as they reformed the Anatolian cycle in 353. We have seen that this reform, carried out according to the rule of Anatole, went back eight years in the Anatolian cycle, placing its beginning in 345. This was the cycle X.Y.'7a: cp'15-5tv. But as

(1) SCHWARTZ, art. *Chronicon Paschale*, in *RE*, III, 1470.

(2) A. MENTZ, *Beiträge...*, 3 and 8.

such a cycle, in the previous system, began only the 2nd year of the world era, it was raised another year to make the era and the cycle go together. We thus had the cycle $\chi\epsilon\rho\alpha$ 0&3. t.v, whose first year was placed as a result in 344, nine years earlier than the beginning of the Anatolian cycle which was to begin in 353. The transformation of the world era took place as a result. The last year of the Anatolian cycle was in the world year 5853 (352); the first of the next cycle was to be 5854 (353). It was a nine-year decline until 5845 (344) which now stood at 5853, the first world year of the reformed cycle, the previous year being subsequently the year 5852, and the entire previous chronology being retrospectively modified by the same. Here is the outline of the reform.

Dionys ^{era} .	Reformed Anatole system of 353				Loved by the world
	Years of the World	Lunar cycle			
		Lunar cycle X Y.Ti Ci*AG		ZY.7& Oe ^e 01')	
331	5835				
335	5836	2			
336	5837	3			
337	5838	4			
338	5839	5			
339	5840				
340	5841	7			
341	5842	8			
342'	5843	9			
343	5844	10		(19)	(5852)
341	5845	11	(19)	1	5853
345	5846	12	1		5854
346	5847	13	2	3	5855
347	5848	14	3	4	
348	5849	15	4	5	5857
349	5850				16,5858
350	5851	17		7	5859
351	5852	18	7	8	5860
352	5853	19	8	9	5861
353	5851	1	9	10	5862

The new era thus obtained is S509 BCE (5⁸53 == 344). It is the very one of the *Chronicon Paschale*.

The operation we have just mentioned is not a result of our imagination. It is inscribed in full in the -.-poz4 of page 534 (ed. Bonn) of the *Chronicon Paschale*. This document is of the utmost importance, and it is truly surprising that specialists in the history of computing have paid no attention to it. Is it embarrassed? distraction? Or prejudice against the processes of the Chronist? What Schwartz says about it is disappointing: "These Tpozoi," he says (for there are others), do not give the solar and lunar cycles that the Chronicler follows, but those that are usual in the Byzantine era. Here, obviously, a copyist strong in chronology crossed out the calculations that seemed irregular to him and for this inserted these -rpozoi, (1). Taken in its generality, Schwartz's judgment is certainly false, and, on analysis, the false outweighs the true.

The 7pozoi, inserted in the *Chronicon Paschale*, are four (2): two present respectively the lunar and solar cycles; they are made in the text of the *Chronicon* (ed. Bonn,

(1) SCHWARTZ, I. C., 2469.

(2) We distinguish them by Roman numerals according to the order they occupy in the editions: I, II, III, IV. Please note: that, for the author of the *Chronicon*, the order of the first two is reversed.

pp. 25 and 27); the third presents a lunar cycle specially designed to explain the chronological implications of the birth of St. John the Baptist; it also contains elements relating to the solar cycle; a fourth, in which only the lunar cycle with the Easter dates is located.

The first -:poy(')- which presents itself is that of the solar cycle. The characteristics are as follows:

I° II includes an epact to the first year, which is indicated in the letter B (Monday); 2° March¹ is a Friday.

From the figure of the epact it appears that the cycle of this ζποζ6ς is a cycle of Anatolian fashion, that is to say comprising at the creation of the world a precyclic year, without epact, namely a cycle y.y.-.7A? :. /xstv. This is also due to the agreement between Friday and March, the month in which this first year of the cycle opens. She drove from 21 March to Thursday. But the 21 March, the day of the equinox and the day of the creation of the luminaires, could only be in the first year of the world on a Wednesday; the concordance of Thursday which is in the first year of the cycle, therefore belongs to the second year of the world, the first a being precyclical. The Monday indicated by the letter B is to March 18, which the previous year, precyclical, of creation, was a Sunday. The cycle of the -:pox(iic, therefore also represents, therefore, fundamentally, the solar cycle za-,-. to 91:)crtv resulting from the Constantinopolitan reform of the Anatole cycle. I say basically, because the ratio of the cycle to the year of the world can be evaluated from a starting point in the different year, as long as it is correlative. Many Byzantine computists, and it can be said that the custom became general from the half century, began the solar cycle on October 1st. The coincidence of I March with a Friday leads to that of I October and Monday: it is the previous I^{er} October, adjoining the same indictional year. This concordance is the one that is marked, among others, in the anonymous Vienna (t) and in Isaac Argyre (2). It was when the year of the world had been aligned with the indictional year that the cycle was postponed to 1 October to bring it closer to the beginning of the indiction. We choose the 1^{er} October, I imagine, because it is a Monday, the first day of the liturgical week in the Byzantine Church at this time of year, the First^{er} September being a Saturday. Psellos (3) and, after him, Blastarès (4) give the reason that the first of October fell on the first day of the week, which made a triple beginning: beginning of cycle, beginning of month, beginning of week (5). Modern Greek computists, having fallen to use the year of the world and indiction, have returned to the old way of starting the cycle in March (6). As far as our twelfth, I.E4 is concerned, as the indication given for I^{er} March is only given in view of the date of Pâques to be determined, and not to mark the starting point of the cycle in the year, it is in no way possible to know whether its author placed it on 18 March or on 1^{er} October. The -:pozi.ς is also suitable for these two processes, or styles, which make, for the cycle, no difference in background, the second deriving from the first.

This is therefore the cycle of -:p oz6c, I. Let us compare it to the one used by the Chronist, and for this we refer to the years 5538 and 5539 of the *Chronicon* (7). We see that these years are for him the years 22 and 23 of the cycle, and that he gives them as epacts respectively 5 and 6, while

(1) F. BUCHEGGER, Wiener griechische Chronologie von 1273, in *BNJ*, II, 1934, 32.

(2) Kaveov 7ccazetoç 'Icroc&x. [.. i.ovocxoù To5 'Apyi]pou, 1612, p. 7-8; *PG*, 19, 1285 C.

(3) Gertrude REDL, La chronologie appliquée de Michel Psellos, *Byz.*, 5, 1929, p. 236-238.

(4) *PG*, 245, 77-80.

(5) Indeed, I cannot believe that these authors, by "first day of the week", meant Sunday; they had contradicted themselves with the computus in use, where the first October of the first indictional year of the cycle was indeed a lundi.

(6) Let's mention for example the Eop'roX6rov of Sébastls KYMINIITES, I 70 I, 273.

(7) *Chronicon Paschale*, 404-407.

the Τρὸς 6ς, in the years 22 and 23, has as epacts 6 and 7 (1). In the T. poz('4, the closest years that have epacts 5 and 6 are the years 21 and 22. There is therefore a difference of one unit between the numeration of the ζποζ6ς and that of the years of the Chronist. The cycle used par this one is a cycle *zar*, :c.i. 0É6w, one year ahead of the cycle *zu*:-:ε cpli)atv. Its years 22 and 23 correspond to the years 21 and 22 of 7poz6. ∴.

Schwartz is therefore quite right to see in the cycle of the -:poy!) ∴, I a Byzantine solar cycle, but he is wrong to say it inserted by a later corrector who would have noticed the false calculations of the Chronist. Certainly, the latter uses the cycle *z*:-:∴ / . 0•,':. 0-tv, but it also indicates the ZOE cycle. Td(cpi!) cLv, and the fact that in his calculations to find the day of the week he operates the subtraction of a unit from the years of the world

indicates that he made them according to the cycle yi)cf.v, and this explains why **i will have kept it in his Chronicon.**

As for the T. poyr II (2), devoted to the lunar cycle, it offers us only in part the lunar cycle ZC7.17(pl'io-t.v established at the time of the reform. It is indeed a *zy cycle*. *z.â r.p!*) Gtv, because its first year has a figure of epacts. But it has undergone several transformations. In terminology

first, where we see appear the expressions *Ospk'Ar.ov* and *e4-yyriç* B0,z... i.or which designates the ^{first} of January; perhaps also in the starting point of the epacts which one can believe to have been primitivement on 20 March, the first neomeny of the cycle; surely in the way of counting them which was not certainly not by means of the *X!* which gives the epacts plus one (which is in fact the age of the moon), a **mode which is not yet seen in any of the** computists of the time of Heraclius; and finally, much more importantly, in the adoption of two new Easter sees, on 5 April and 25 March, received from the Alexandrian cycle and officially passed into ecclesiastical practice. This last circumstance especially explains that unlike the *zpoysfig* of the solar cycle *s/-7;r&? I'.*) 6tV of the reform of 353, which does not indicate Easter, the 7pozlic of the corresponding lunar cycle was not preserved, but replaced by another in accordance with later ecclesiastical usage.

The cycle of this -:po714 II could however fundamentally belong to the Chronist, **because on the one hand**, the Paschal dates of April 5 and March 25 were of his time official, and he could not do otherwise than to mark them, and on the other hand the epacts, despite the **advance of these Easter dates**, have however remained the same, manifest vestiges, left by oblivion, of the primitive state of the lunar cycle X.00T: piii)atv **of the reform**. In addition, although the Chronist, for the convenience of calculating Easter, had taken as a **basis** a neomenia beginning on the 1st^{of} March, he could nevertheless, the moon of March being identical to that of January, take **1 January, the more significant date, as the beginning of its lunar cycle**. This is the common date among Byzantine computists who had to receive it from their predecessors.

For these various reasons, it cannot be ensured with Schwartz that the -:pozr,c IT is the work of a

(r) Epacts 5 and 6 are marked 7 and Z, and epacts 6 and 7 are marked Z and A. It must be taken into account here that the **solar year does not correspond to an exact number of** weeks, but to one more day, two in leap years. Since the solar cycle begins on a Sunday, these extra days add up to the year, the first day of which is again a dimanche. The number of these days can never exceed 7, the seventh being the Sunday returned. It is these extra days that are called solar epacts. They are expressed by means of the letter-numbers used to designate the days of the week. The letter expresses directly only the weekday on which the year begins. It is the letter immediately preceding which is the figure of epacts: it indicates the number of days, including Sunday, which precedes the expressed weekday. The year that has the letter A has no epacts (or has 7 as epacts, which is identical), because it is on Sunday that the solar cycle begins. The letter B, which means Monday, marks epact; the letter r, which means Tuesday, marks 2 epacts, etc. In the lunar cycle, the letters A, B, Γ... , themselves mean the epacts. DaUs the solar cycle, the figure of epacts is always the letter which precedes that which is expressed in the ^:pozoi **of the solar cycle**. Therefore, when the figure of epacts is declared, it must be increased by one unit to know the day of the week. See in our Second Part *Chronological frameworks*, p. 184.

(2) *Chronicon Paschale*, p. 27.

later computist who wanted, by inserting a cycle of Byzantine character, to remedy the defects of the *Chronicon*: **such** a corrector would probably not have failed to reconcile the epacts with the rise of the Paschal dates.

And as elsewhere the Chronist, although using the lunar cycle *zwrix Uatv*, **had to be able to refer for the course of the moon as for that of the sun**, to a cycle *xy.. -:& cpl'icivi* to confront or facilitate his calculations, it is not out of place to suppose that he had for this purpose a *7, poyli*: presenting a lunar cycle *zoc7.&c; 91')* *Gtv*, of which the one that is ours **would be** a reproduction, with the sole exception of the way of counting the epacts by the *0.1,LOV*, a way which, as we have said, does not yet appear among the computists of the time of Heraclius.

For the other two *-,pozci,i,III* and *IV*, it is recognized **that they are indeed those followed by the author**. Both, moreover, coincide for the part that is common to them, the lunar cycle, and, as for this part, the proof of the use of one by the Chronist also concludes to the use of the other.

See first the *-po/64 III (1)*, which the author applies to the Conception of St. John the Baptist. We do not have to ask ourselves here if the indications given for the age of the moon at ^{ter} **September of each year** of the lunar cycle enclosed between the years 5492 and 5510 correspond exactly to reality, but only if the cycle is indeed that of the author. There can be no doubt about that. It is enough to **compare the text with the -poy(to see that it is the same number** of epacts that is assigned to the same year of the cycle, provided that the distinction of the cycles *zocTerc Oéatv* and *zy* **is taken into account**. *T.. -.)*. (*p:riGtv*, and this is probably what Schwartz forgot to do. This *-,pozg* like the *-rpoz6ç IV*, which we will examine below, presents a cycle *xy.. -:and Uacv*, as it appears by the number of epacts of the first year which is 30. But the calculation concerning the year 5506 (2) is made according to the cycle *7mC(7& .. Acyni* this is seen by the prior operation of the subtraction of a unit. The division of 5,506 minus I, so 5,505 by 19 gives as rest 14: it is the 14th year *xcx-r.dc cpl'iatv*, so the *I5e0&3v. :*; it is, consequently, in the 15th year of *-.7pozr_4* that it will be necessary to dear its epacts: the figure is

4 as in the text. It thus appears obviously that the lunar cycle of *Tpoz6ç* is indeed the one used by the author. For the solar cycle, we will proceed differently, because the Chronist, in his text, follows **a different process than that of the epacts**. We will resort to the comparison of the year 5538, where the process of solar epacts is used to determine the weekday of his *XIV Easter lunae* (3). This year is said to be the 22nd of the solar cycle and the figure of epacts is 5. Now, our *-in/G;* contains the year 5510, which being 28 years earlier, must therefore, if the cycle is the one used by the Chronist, also be a 22nd year with the same figure of epacts. And this is precisely what is true, because the year 5510 in the *-,poxi,c.:* is affected by the same figure of solar epacts: 5. So the *-.7pozr')c,* which we examine is indeed that of the Chronist, it is not that of the Byzantine era, as Schwartz wants.

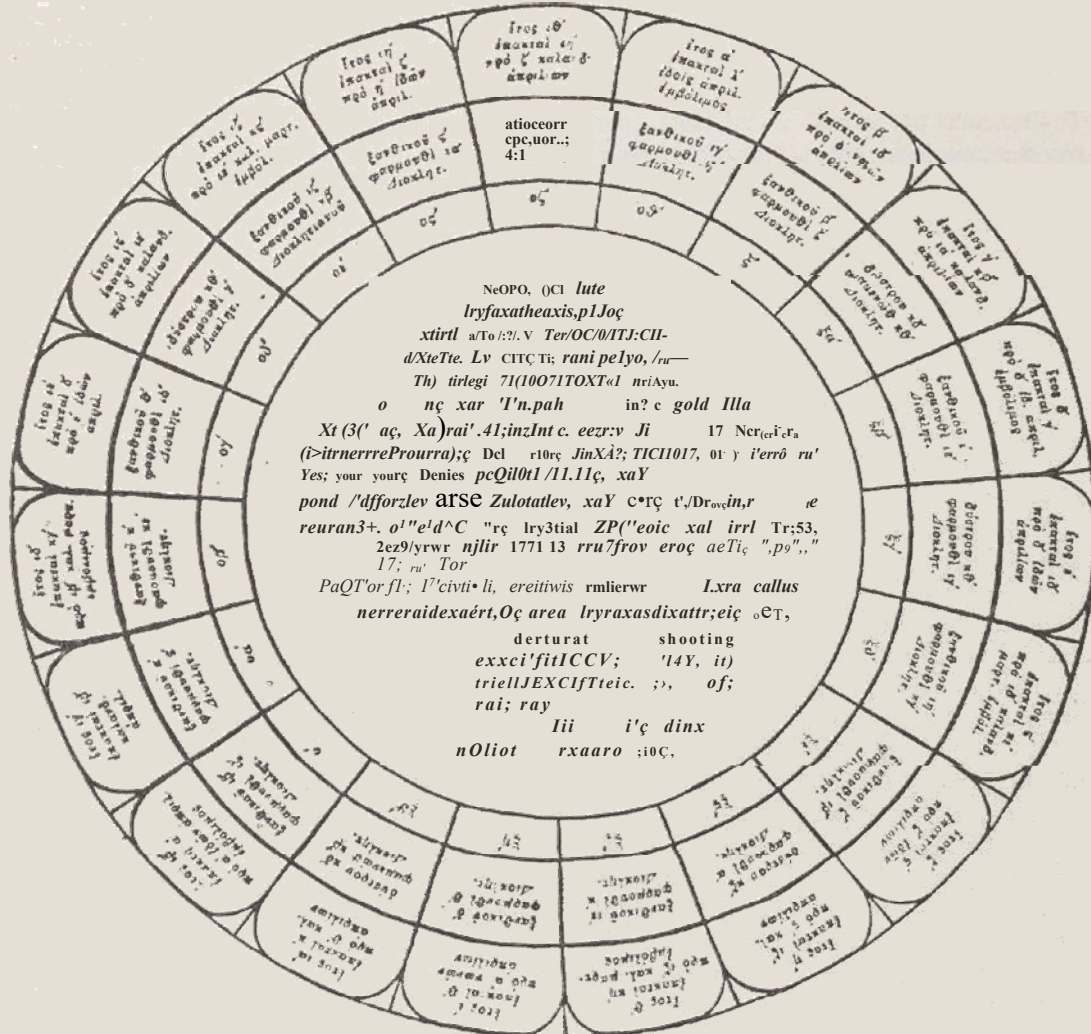
The *-,poz/iç IV (4)* presents a lunar cycle containing the epacts, with the dates of the *Easter XIV lunae*. These dates are given according to the Roman calendar with the correspondences in the Syrian and Alexandrian calendars. The current text of *T.poz6ç* contains several errors **that** disfigure it and can mislead a reader in a hurry. Thus, in the second year, the figure of epacts 14 after the first year which has 30, is an impossible figure and comes from a copyist who read *I:* instead of *AI*. Thus similarly, in the third year, the date of the 24th *dystros* (March) and the 29th *phamenoth*, **while the Roman date is** 11 *kal.A.D.* = **March 22, which is the true day**. Thus again, the constant mistake of substituting March for May in the Roman calendar is due to a copyist who misinterpreted the abbreviations.

(1) *Chronicon Paschale*, J72.

(2) *Ibid.*, 368.

(3) *Ibid.*, 405, I. 9-15.

(4) *Ibid.*, 534.



:In obi e.t.Z".p and c'r (screams east Dtarpnv. 1. rpotroydeprv V. 2. i0' lrgpiboc PV, Sic and 6. 10. 15. 3. nmocr-
plexasdnereti. l'V. 13. ri. Ka' roCi papiouf ni; iterras m. V. 14. oüreJ oie P. ib. —
lrglpt IV. ()mira autero circuluru R.

In the pageantry above, V = cod. Vaticanus; P ed. Parisiensis; R = ed. Raderi. Further corrections are required, which we indicate in the order of the years of the cycle:

1. In the lower box, ve' cod. : oe' ed. For the real number, see note below. — 2. èrcæwroci. corr. —
3. hcrp'o) x6' con. It cpap.cv(10 K' con. — 5. n'A y' Xe. deltp:MGOV corn. It 815(rrp0'.) corr. Il cplpp.ouet y' end
cpaptlouel 8' con. i 6. iiatc in con. — 9. l.tatcov con. — I I. criali.evc.1)0 wri' con. — 14. 7rp6 t6' xct'A. cbrpc. X.
con. I I ii.cepri,ou xec con. Il cpap.svedie XE' con. — 17. p.octcov con.

In the legend, 1. 13 & vdc4ocp.s cod. — In the margin of TpoX6ç (with reference to 1. 13 of ms = 1. 14 of the ed., after y.ce) cbç dp trrat cod.

IMPORTANT NOTE. — Diocletian's years (in the lower circle) must be reassembled respectively in the previous box, so that year 1 of the cycle (marked 59) = 60; year 2 (marked 60) 61, until year 19th, which (marked 77) = 78. See our explanations pp. 81-82.

A reconstruction of the protobyzantine Paschal table of 353, taking into account all the corrections indicated above and in the text below, is presented below, p. 232.

Cleansed of these adventitious mistakes that must not come into play, is the cycle of our 7poz4ç well, as Schwartz says, foreign to the Chronist and usual in the Byzantine era? On this last point, the answer is definitely no. In none of the cycles used in the Byzantine era does the first year appear with 3o epacts or without epacts; in addition, all present the Paschal dates of April 5 and March 25, instead of April 6 and April 26 which are in Tp0Zi4. For the first, let's examine the behavior of the Chronist for the calculation of the Easter of the years 5537, 5538, 5539, 5540, 5541. This calculation, for all but one of these years, is in accordance with the indications of -, :po z(4. The exception is the Passover of 5540. It is precisely the Passover that interests the Chronist, that of the Passion of Christ. He wants for her a Friday XIV lunae. However, in this year 5540, which is the 1st of the lunar cycle xot-rec 0éatv and the 10th of the cycle xxr& cp1¹atv, where the XIV Easter lunae is in the -:p oz6ç to March 24, it turns out that March 24 is a Saturday, and consequently the previous Friday is the X/// lunae. By a special calculation, the Chronist thus goes back the date of the XIV lunae to the 23rd of March to make it coincide with Friday(1).

What is this calculation? Schwartz states that it is that of the m. -lerX.T.CX0;3.17.E:C, %Gd 0t. Troi3v;7E;:, but it does not show it (2). Serruys, without controlling it, accepts this statement (3).

So let's look at this calculation. Operation made to know what is in 5540 the year of the lunar cycle, operation that gives year Io of the cycle xm-L73t, yatv and year i i of the cycle Zr.XT.a'.0é(TCV, the Chronist continues: (c This year has 21 (SiC) epacts. Let's add the 13 days -"tipi) yacrrl)pwv and the 7 npociXr,vot, plus 3 from March 21; then to the 22 lepta let's add another 45, because this year (5540) is the third after the bissexté, and of these 67 lepta we take a day and the tout makes 44. Remove 30 from 44, you have 14. Thus, the XIV lunae is March 23. The lepta are the fractions of the day divided into 6th parts. A certain number of lepta are added each year to compensate for the day that is removed every 19 years. The 22 lepta represent here the total of the lepta to the IIth year X.0(1. 7.k

0thev, so the Chronist adds only 2 lepta 6—, each year. The 45 lepta —⁴⁵/6orepre- feel the advance of 3/4 of a day, each solar year having 365 days + 1/4, which makes every four years a full day.

This is therefore the calculation of the Chronist. It is easy to realize that it has nothing in common with that of the 7tEY":0C7701jVT.Z4. This appears first in the figure of the epacts. The current text gives the year 5540 the number of epacts 21 (like that of tcsvtE7r.X0i3VTF4), instead of 20 which is in the 7poz6ç, but it is undoubtedly a material fault: the real leçoneis 20 as in the -rpoz6c,.. The proof is in the result of the calculation which gives the sum of the days from which the XIV lunae will be extracted. This sum is 44. It would be 45, if the figure of epacts was 21 (21 -r 13 + 7 + 3 + 1 =

45). This is then seen in the divergent Easter seats of 6 April and 26 March. This is also reflected in the way the Chronist calculates the number of sixtieths of a day per year of the cycle.

The nzv-, -ctr. XoTE.c-, have five: —⁵o' • it has two: —⁶o' which gives it —²²in years. It's 6 well, that is an essential difference. This finally appears in the use of lepta provided by the quarter of a day exceeding each solar year, operation non-existent in the ne.v-rctr. no;s3v7.sç. The calculation of the Chronist is therefore completely different from that of these computists. Only the result coincides, namely the one-day decline of the XIV Lunae of the Easter month. But it should be added that it is only for their 10th year that the 77Z.VTÆ7.70; 3V=.. achieved such a result, but for 13 years of the cycle, and

(i) *ibid.*, 414-415

(2) Ed. SCHWARTZ, *art. cil.*, 2468.

(3) SERRITYS, De quelques ères usitées chez les chroniqueurs byzantins, *Revue de Philologie*, 31, avril-juillet 1907, p. 182.

even, for one year, the 16th of the cycle, they retreated the *XIV lunae* by two days. The cyclical years 7, 8, 9, i 1, are among the 13 where the 7ZZ. V=17.X0VrEÇ set back the Passover by one day: to them correspond the years 5537, 5538, 5539, 5541 of the Chronist. However, he does not go back easter to these years. The processes of the 7.:w^217. ^A0;3V7SC.; are unknown to him.

It emerges from this discussion on the '7.pozoi. of the *Chronicon Paschale* that only one of them, the second, contains the Byzantine lunar cycle proper, which, because of the new Paschal dates, took the place of the lunar cycle xa f ?i')O-! ,v primitive, and that the others correspond indirectly, as the first (solar cycle yi'o-tv), or directly, like the last two, to the system employed by the Chronist.

THE SAMPLE DOCUMENT

The ground thus cleared, let's go back to the reform of 353. To determine its scope, we appealed to the -.-poyf4 IV of the *Chronicon Paschale*, describing it as a document of prime importance. It is time to explain ourselves.

We said that this -, -po& (the last of the four we have just dealt with) contained, with the epacts of the lunar cycle, the seats of the *XIV Easter lunae* formulated in dates of the Roman calendar with their concordance in the Syrian and Alexandrian calendars. Let's finish our description.

The years of said -rpozr', c; are affected by a chronological element that the other •7pozoi do not offer. They are dated by the years of Diocletian: the first year of the cycle is the year 59 of Diocletian, the others follow in order until the year 77, the last. These kinds of indications are always a godsend for the chronologist. Here the windfall is a fortune, since the dates indicated take us back to the very time of the reform of 353. But more than fortune, it is treasure that will have to be named the explanatory note that reads inside the -, :poy/4. Nothing is more informative, nothing is more explicit. Here is the translation.

"Chronographies (= indications of dates) of the *XIV lunae* of the enneaédékétéride to which the law (= the mosaic law) ordered to celebrate the Passover. The cycle contains them according to the Romans and the Syrians, or Macedonians, and according to the Egyptians: the present enneaédékétéride took its commencement of the 59th year of Diocletian, namely from the 21st, this one being included, of the month of March, the day on which the equinox is recognized, in the consulate of Leontus and Sallustius, under which consuls the year 5852 of the creation of the world ended. Completed the enneaédékétéride (begun) in the times said and under the said consuls, goes back (d. vp/p.r cod.) again in its first year on March 21 of the second indiction, realizing in a precise way that neither the okta- and the pentekideide-téride, nor the heptakaidékétéride, ni the hekkaidékétéride can have accuracy, but only the enneakaidékétéride, and you also (gysc cod. for •zsv,) in the cycle the epacts that must be put each year, and the embolismic months. »

This text may not contain more remarkable or more concordating chronological details. The most valuable is that provided by the consulate of Leontus and Sallustius. It corresponds to the year 344 AD. It is in this year on March 21 that the beginning of the cycle is placed.

With the consular agrees the indiction: marked for the first year of the cycle: the second indiction is precisely that of the year 343/344. If this indiction does not work with the year of the world 5853 (first year of the cycle), but it is lower by one unit, it shows precisely that the year of the world is not according to the Byzantine era, but according to the era of the *Chronicon Paschale*.

Remains the year 59 of Diocletian. This year corresponds to the year 342-343 and the first indiction. It therefore bears a divergence. Moreover, this account is reproduced in the frames of the years of 0/! ,,,; , where we see the first year of the cycle marked in the year 59 of Diocletian (1) and the years 2, 3,

(1) I.e. manuscript has indeed vO'; the figure of T (= 79) of the edition is a fault of inattention.

4, etc., in the years 60, 61, 62, etc., of the same era. If we were to stop there, we would have to start the lunar cycle in 343 instead of 344. This discrepancy is an anomaly, which is, admittedly, very striking: it cannot, however, in any way call into question the date of 344, which is ensured by the agreement of the other two data, of the very first order, the consulate and the indiction. However, we must try to remove this difficulty. The means is provided by the very text of the explanatory note of -7pow'ic. It is a question of fully understanding how it expresses the date according to

the era of Diocletian, and more precisely to determine what is the scope of the word **in** &71-?) v0'

This preposition, here temporal, has, of itself, **un indeterminate** meaning: it can either include or exclude the term it governs. The true meaning usually emerges from the text where it fits in, but it may not be obvious. The formula c:crze) v0' g-zouç AtOX?:ye-rIVOI'5 fits in this case. It can mean either: from the 59th year of Diocletian, this being included, or: from his 59th year, this one not included. The fairly usual use of the Chronist, when it uses Cc-rre) in the inclusive sense, is to mark it **par** the formula oc'yro; 5 or GCÛ'ri;Ç **added to its** complement. Let us cite two cases, one for the year, the other for the day. For the year, the text, already known (see p. 67) concerning the 5th year of Philip: &77Ô g'7.01);,' ZOd. OIC:r70G 4)0,(.77COU(1). For the day, the text indicating the duration of the nuptial feasts of the marriage of Theodosius, son of emperor Maurice, from February 9 to the 15: vç. cps6pouocpi.y... &no 0' xod oc1)73^Ç (2). Since, in our text, Diocletian's year 59 is not affected by this inclusion formula, it at least and surely follows the possibility of its exclusion, that is to say that it may not itself be counted as belonging to the cycle, and in this case the cycle would begin in the 6th year. Since this meaning is possible, it cannot be done other than to consider it necessary — necessary precisely because of the year of the consulate and the indiction to which the data is attached. One can go further and show that this exclusive meaning of *de-rrô* with regard to v0' Toue; is suggested by the very text of the Tpoyêç notice. Indeed, in wanting to specify the inaugural date of the cycle, the author expresses himself as follows: from 21 March, **this one being** included, etc.: x(x' xod OC. Û-7'f; Ç TO;.) (lapœriou. This inclusive sense of *dorô* that was not indicated for diocletian's year 59 is here. Why this care, if not to avoid that the second Scir6 is understood as the first? And does that mean anything else, except that the first one had an exclusive meaning for the author. As we can see, it is the very text of the notice that invites us to exclude the 59th year of Diocletian from the cycle. We must therefore understand as follows: the enneadekaetridic **period** took its commencement from the 59th year of Diocletian, *not included*, so to the year that follows, the 60^e, the one which, precisely, corresponds to the year of the consulate and the indiction then marked (= 344). Thus is removed the difficulty offered by the indication, in the notice of the Tpozrk, of the 59th year of Diocletian, in conflict, according to the first appearance, with the other two chronological data.

As for the presence of the 59th year of Diocletian **at the head of the years of the cycle in the boxes of the** zpozrk, one must (there is no possibility to do otherwise), explain it by the intervention of a moderately intelligent and well-intentioned copyist who wanted to harmonize the diocle-your years of -rpoy liç **with the text of** the explanatory note. It must have seemed inconceivable to him that diocletian's year 59, which he saw expressly marked in the notice as the first year of the cycle (thus he understood), was not found even as the first year in the circular series of -rpoz6:,. He therefore took care to include it and to order accordingly the following years of the cycle. Foreign to the employment of the Diocletian era, it was difficult **for him, and the idea did not have to come to him**, to realize whether diocletian's year 59 coincided well, not to mention the consulate, with the indiction and the year of the world indicated. He was, at least, sure not to be mistaken, he thought, in

(r) Other examples: *Chronicon Paschale*, 526 and 527.

(2) *Ibid.*, 693. Other examples include 414, 423, 701, 704, 705, 710-712, 725, 726, 727.

conforming to the Diocletian chronology of the years of the cycle in **the boxes** of the express of the explanatory note.

Having given these clarifications, the way is clear for assessing the scope of our document. The essential point, for this, is to determine the time when it was composed, and more precisely, since it bears a date, to see if this date is indeed guaranteed. The affirmative answer is not in doubt.

First, all the chronological forms of the document proclaim its high antiquity. It is absolutely pointless to think that a later computist, wanting to instruct his contemporaries, could have thought of taking son account so high. And what could he do with diocletian's years and dates in the Egyptian calendar and even in the Roman calendar? Speaking of the latter, we can be sure that it is the fundamental timetable, the others being only **inthe** concordances. We see indeed that the notice puts in mind the Romans xa.,-ri'Pmi,ocioug. Moreover, in the Tpoz6r, itself, the Roman calendar is alone placed in the same circle as the indication of the year and epacts, another circle containingtogether the Syrian and Egyptian dates. Let us add the fact already reported of the discrepancy,**in the third year of the** enneadékaétéride, between the Roman calendar, where is the true date of the *XIV Easter lunae* and the other two calendars, which present a **false** correspondence, this one can only come from a lack of application. Another reason of high antiquity lies in the preoccupation with a perfectly accurate cycle of 19 years against other imperfect cycles of 8, 15, 16 or 17 years. It can be said that from the fifth century, and even from Theodosius I, who officially adopted the centenary table of Theophilus of Alexandria, these cycles were out of play, and that of 19 years, the only employee in the East. The recall of the cycles **would have made no sense** later. So everything goes back to the time described in the table.

Let us now note that the writing of the Tpo^{-eg} **was done not before** or after, but during the course of the enneadékaétéride began **under** the consuls Leontius and Sallustius. The text bears in fact: "The present enneadékaétéride took beginning from..." of 21 March, equinox, of the consulship of Leontion and Sallustius"; **he warned to go back**, when it is finished, to the second indiction to note **the perfection of the** cycle. This second indiction corresponds to the years 5852 ending and 5853 beginning, the equinox of **March** 21 marking the beginning of the year. The year 5852 ended, says the text, under the consulate of Leontus and Sallustius. Let us dyed on this date of 5852. This is a very important fact. It is explained only by the reform of the Anatolian cycle carried out in 353 and enlightens it in turn. The concordances given to him: 59th year of Diocletian, 2nd indiction and consuls aforesaid, **fix it in** 343/44. Begun with the equinox of 343, it ends just before the equinox of 344, where, subsequently, begins the year 5853.

This result is perfectly in line with the reform of 353, carried out on the very principle of Anatole. To stick to this principle, the lunar cycle, cycle xy.-rà cpli)o-tv, had to be traced back eight years above, that is to say from 353 (5854 of Anatole) to 345 (5846 of Anatole). This last world year was therefore to be stated from now on 5854 (345). This is what the Anatolian principle strictly led to. But, thanks to the -po/%4, we know the complementary operation of the reform: the establishment of the new **cyclenot** Y.0.' 7✓ yl'io-tv but XOCT." >. Uacv, that is to say, not by making it start from the numeration of the epacts, but by making it start, concurrently with the course of the sun at creation, of a year without epacts. We see indeed the first year of the enneadékaétéride of the 7th -ti4 marked with 3o epacts, which means zero epacts, while the cycle of Anatole began with II epactes. The reformed cycle has thus been raised by nine years instead of eight, the era of the world having risen by **eight years** (see table above, p. 74). And there is obviously no other reason for this than to make the years of the cycle go together with those of the world, as in the Alexandrians the years of the cycle worked with the years of Diocletian.

It is a happy fortune that the $\tau\pi\omicron\upsilon\gamma\epsilon\varsigma$ has been preserved. The Chronist does not rely on it, it does not refer to it; it is certain that it follows it, as we have shown. If there is one exception, that of the Easter date of 5540 (I Ith year of the cycle), the explanations that accompany it simply prove that he wanted to justify this difference. The exception also proves that the Chronist is not the author of $\tau\pi\omicron\upsilon\gamma\epsilon\varsigma$, because he would have put the Paschal date that interested him; this one was much earlier. It is worth noting here that the $\tau\pi\omicron\upsilon\gamma\epsilon\varsigma$ is placed in the *Chronicon Paschale* in front of the consuls Leontus and Sallustius, undoubtedly as a monument recalling their consulate, and, in the case, as a document taking date from their consulate (344). Thus, everything in this $\tau\pi\omicron\upsilon\gamma\epsilon\varsigma$ bears the mark of the time when the inner notice fixes it, which is the very time of the reform. Everything is appropriate and everything is explained in this context: the dates in the Roman calendar, which were necessary because the reform was an official affair, ordered by the emperor, the years of Diocletian because of the existence of a decem-novennal cycle, which bore this continuous numbering and with which it was important to mark the correlations so that there was no disagreement on the Paschal dates; the transcription into Syrian and Alexandrian months for the populations to whom the more complicated Roman calendar was not familiar; finally the concern to affirm the excellence of the 19-year cycle on the others who still had, towards the middle of the ivth century, to claim to compete with it.

I come to the conclusion. We knew from Armenian texts the existence of a reform of computus at the end of the Anatolian cycle of 95 years which ended in 352 and the creation at that time of a bicentenary table due to Andrew of Byzantium. But it is the $\tau\pi\omicron\upsilon\gamma\epsilon\varsigma$ (S ϵ du *Vaticanus* gr. 19-11 that gives us the result and allows us to identify its nature. We read the operation of the new cycle and the point of depart that is fixed to it. We read, required by the cycle, the transformation of the previous world era (that of Africanus) and the starting point or the first year of the new era. Are we not right to call this $\tau\pi\omicron\upsilon\gamma\epsilon\varsigma$; a document of the utmost importance? It seems to us as the official state of the reform of computing, the birth certificate of a new Easter cycle and a new era. And this new era, used in the present state of the *Chronicon Paschale*, but which was first obviously used in the primitive state, will one hesitate to see in it the primitive, very authentic era of the Byzantines and to give it its real name? This name, which suits him and distinguishes him, can only be the one that we have inscribed at the head of this chapter: THE PROTOBYZANTINE ERA.

Finally, it is appropriate to say a few words here about an issue that has greatly divided scholars. This is the discussed existence of a manuscript of the *Chronicon Paschale* stopping at the year 354, that is to say at a date quite interesting for us, since it is the year following the reform of computing. We would thus have proceeded, without delay, to a revision, applying the new era of the world, of the chronology of the previous chronographs. The basis for affirming the existence of this first reaction of the *Chronicon Paschale* was the following indication of Du Cange in his edition of the *Chronicon Paschale* in the year 354 (consulate of Constantius Augustus VIII and Constant Caesar III):

" $\alpha\upsilon\gamma\iota\omicron\iota\chi\tau\omicron\upsilon$. In hac nocte, uti in Praefatione diximus, Holstenius codex desinit.' In the previous part of his edition, the French scholar noted variants from the famous librarian of the Vatican. This mention of a Holstenius codex ending in 354 naturally led to the assumption that there must have been a primitive *Chronicon Paschale* that stopped at that date. Illustrious scholars, led by Mommsen, were not afraid to accuse Holste of having, in bad faith, produced notes from a non-existent manuscript. Conybeare, in producing Du Cange's correspondence with Bigot, showed the inanity of this accusation; he concluded that the manuscript had been lost (1). It was Cardinal G. Mercati who found

(i) F.C. CONYBEARE, On the date of composition of the Paschal Chronicle, *The Journal of theol. Studies*, 2, 1901, 288-298; ID., The Relation of the Paschal Chronicle to Malalas, *BZ.*, 1902, 395-405, spec. 401-402; ID., The Codex of the Paschal Chronicle used by Holstein, *The Journal of theol. Stud.*, 7, 1906, 392-397.

the real solution: the Holstenius **codex** is simply a copy of raderus' edition, on which Holste found variants. This work stops at 354. The origin of the variants is none other than the *Vaticanus graecus 1941*, which contains the *Chronicon Paschale*, and which, naturally, the learned library had the curiosity to compare with the edition made on the Munich manuscript ⁽¹⁾. It remains to discover this annotated copy.

(r) G. MERCATI, A Study of the Paschal Chronicle, *The .journal of the theol. Stud.*, 7, 1906, 397-402 ; reproduced in G. MERCATI, *Opere minori*, Ii ₁₉₃₇, 462-467.

THE ALEXANDRIAN ERA

The protobyzantine era, although strictly in accordance, according to the Anatolian conception, with the supposedly natural law of the lunar cycle, nevertheless left very few traces. The reason for this is that the world eras were originally used only by chronographs that applied them mainly to biblical and evangelical events, while the acts of public and private life proceeded by consulates and years of the emperors. When this kind of dating was introduced into the iastic ecclesiastical literature, especially in hagiography, the Alexandrian era created afterwards had already, for the reasons that we will see later, conquered its preponderance.

It might be surprising at first glance that the Alexandrian deecemnovennal cycle, created in 304, waited about a century before giving birth to a world era. That is the way it is, however, and it is understandable. This cycle, not based on a principle linked to natural facts, but simply aligned with the beginning of a calendar year, had only a conventional basis. Its creators could not fail to be aware of this. No beginning, moreover, was initially offered to the Alexandrians to claim, or even to think, to draw an era from their cycle. They had to continue, when they wanted to designate this or that year after the creation, to use the era of Africanus, and perhaps, but this is unlikely, they employed, from 353, the era that succeeded him, so to speak, by natural consequence. In any case, they had no need of it to situate their cycle and measure their development, because they had for this, from the beginning, the continuous numeration of the years of Diocletian which was sufficient for them and dispensed them with any other.

What could give rise to the idea of associating an era with the Alexandrian cycle was the favour that this cycle received from Theodosius I^{er} (380-395), who, as we have seen, officially recognized it by accepting the centenary table of Theophilus of Alexandria. Since the official canon of Constant II was linked to a world era, the idea had to come, and it came, that it could also suit the new official canon that supplanted it. The only information we have on this company comes from Georges le Syncelle (early ninth century). They implicate two chronographs: one, Panodorus, who lived, it is said, under the emperor Arcadius (393-408) and archbishop Theophilus of Alexandria (412), the other, Annianos, his contemporary, both monks (1). The priority must belong to Panodorus, because his system has not survived, and this can only be explained by admitting that he has been supplanted by another, that of Annianos, who seemed more satisfactory.

One has long been inclined to judge the first organization of the Alexandrian era by the state in which it appears definitively constituted; also, seeing the name of Panodore attached to the first

(s) On these two authors. see H. GELZER, *Sextus Julius Africanus*, II, 189, and references in the "Register" s.

use of this era, it is to him that naturally this state has been attributed, and of his name that has been called the era thus constituted. It was believed, by the same perspective, that the Alexandrian era was established from the beginning with the same beginning as the Egyptian year (1 thôt = August 29), and various data of George the Syncelle have been interpreted in this sense.

THE ERA OF PANODORE

The era of Panodorus, according to traditional opinion, is the 1 Thôth (August 29) 5493 BC. This did not seem obvious to Ch. Unger, who tried to prove that it had to be traced back a year and put it in the 1 Thôth 5494 BC. (1). Mentz (2) and Serruys (3) reacted in favour of the old position. However, as we can see, all admit as out of discussion that the beginning of the era is in the first thôt. It appeared to me that the information from Syncelle had not been taken full advantage of and, jointly, that no account had been taken of its way of accounting, using certain dates of Panodore reported by him. Let us note here beforehand to avoid any confusion that an era of creation must necessarily have its beginning at the time of the year in which creation is placed. However, for all chronographs, the creation took place at the spring equinox or in the vicinity. This is part of the constitution of the era. It is only in the future, out of accommodation, or by forgetting the origins, that it receives a beginning aligned with the calendar year. One could, according to this, distinguish in the use of an era, the technical style and the vulgar style. This is, of course, about the technical style, the style that constitutes the era and justifies it.

The new era instituted by the Alexandrians, like that of Anatole, like that of Constantinople, had to be established by going back by cyclic revolutions of 19 years from a first year of their cycle, that is to say 285 or 304, or any other year observing this interval, to the first year of the cycle attached to creation.

We have seen above that the Reformed cycle of Alexandria had its beginning in the ninth year of the cycle of Anatole, and therefore that there was a difference of eight years between the two. We have seen, on the other hand, that the Era of Anatole included a precyclical year that put the years of that era one unit ahead of the years of the cycle. Would it be the same for the era based on the Alexandrian lunar cycle? Will it thus be a pure imitation or transposition of the era of Anatole? If so, the difference between the two eras would also be only eight years. Otherwise, the difference, due to the absence of a pre-cyclical year, would be nine years.

There are therefore two ways of instituting the era: either to make it begin and walk with the cycle, or to make it precede the cycle by the establishment, at the creation, of a precyclical year. In either case, the institution of the era must have three fundamental coordinates: the first consists in the convenience of the beginning of the first year of the era with the days of the genesiac week, Sunday, first day, and Wednesday, fourth day, when the stars were created; the second consists in the determination of the year of the Passion, offering the necessary synchronism for the day of this event, taking into account the long chronology of the life of Christ; the third is in the conjunction of the two previous ones, that is to say, the date of the Passion or resurrection must bring back the date of creation, or one of the other two important dates of the genesiac week, creation of the sun, or creation of man.

Having said that, let us now examine what is, with regard to the Genesiac days, the result of the pure and simple transposition of the era of Anatole, that is to say, with only a difference of eight years.

(1) Chr. UNGER, *Chronologie des Manetho*, Berlin, 1867, 37 sq.

(2) A. MENTZ, *Beiträge zur Osterberechnung bei der Byzantinern* (Dissert. Königsberg 1906), 7, n. 3.

(3) D. SERRUYS, Les transformations de l'Aera Alexandrina Minor, *Rev. de Philologie*, nouv. série, 31, 1907, p. 252-268.

To achieve this, let us help ourselves with the perfect cycle of 532 years, the only one that makes it possible to rigorously calculate the joint recurrences of the day of the week and the monthly calendar. We will take as a point of support the date of 5853, beginning of a cycle of this kind ($532 \times 11 = 5,852$). In the era of Africanus, which advances one year on its cycle, 5853 is the end of one cycle, and it is 5854 that is the beginning of the next cycle. The year 5854 here equals 353 of the Dionysian era. The eight-year lag that

produces the new era brings the equation to 361 ($5,854 = (353 + 8) = 361$). The year 361 is the year corresponding by recurrence at the opening of the lunar cycle to the second year of creation. The precyclical year, the first year of creation, corresponds to the year 360. Nous can therefore, by means of this last year, know the dates of the Genealogic days. Let us proceed accordingly. The year 360 is a nineteenth year in the lunar cycle of the Reformation of Alexandria, year whose Paschal headquarters, *XIV lunae*, is at 17 April, date **related to the jump of the moon in this year**. As the first year of creation cannot include a leap from the moon, its *XIV lunae*, instead of April 17, will be April 16, a day lower than in the era of Anatole, where the *XIV lunae* was the 15th. We can dispense here with redoing the calculations established above about this era (I). It will be enough to transpose the result by the addition of a day. In the era of Anatole we obtained the *XIV lunae* of creation on March 17, so we will have here March 18. In 360, March 18th is a Saturday; so is the same for the year of creation. The first genealogic day, Sunday, will be, consequently, March 19, and the fourth genesiac day, Wednesday, creation of the stars, will be **March 22**, the moon being in its *xcity* day.

This is the result of the transposition of the Anatole era, with the inclusion of the precyclical year, into the Alexandrian era. The era of the world was in Anatole on March 22, 5501 BC; it becomes March 19, 5493 BC.

Is this the era of Panodorus?

For the answer to be in the affirmative, it will be necessary that this concordance is verified between the date of the creation and that of the Passion (or resurrection) of which we spoke above and in which the old chronographs found the most impressive of the demonstrations. So let's see the dates of Panodorus touching these events of the life of Christ. They are provided to us, as to the year and as to the day, by Georges le Syncelle, in his 'Ex.Xoy' *zpovoycccπia.ç* (2).

First of all, and to avoid any confusion, let us note that this author, in noting and appreciating the dates of his predecessors, only looks at the numbers themselves without taking care of their true historical correspondence and, apparently, without knowing it. Thus, for example, he praises Africanus for putting the Incarnation of Christ in 5500, as he does himself, but, while his own date of 5500 corresponds to the year 8 AD, that of Africanus corresponds to the year — 2.

This remark is made, let us see what are, according to George the Syncelle, the dates of Panodorus touching the Passion and the Resurrection of Christ. After saying that Panodorus was seven years wrong for the date of the Incarnation, the Syncelle adds that because of this, it was also wrong for the day of the Passover, **7-re. ;p L 7-7.a. ax.)tov - ;,p. 4ccv*, putting it in 5525 on **March 20**, or the 24 Phamenoth (the text, by obvious error of copyist, carries it) *oc.p.cv0 f*). Leaving for the moment the question of the true figure for the year of the world, which Goar corrected in 5526, we can say as sure that the year designated *par*Panodore is the year 34 of our era. The mention of Phamenoth forbids indeed to think of the neighboring years 32, 33, 35, 36, where the respective Easter seats of **April 12**, April, April 9 and March 29 require the transcription into days of Pharmouthi. Fixed panodore the *XIV lunae* (*-I.-+av ;tipi 7.xaz4:Xtov iplpocv*) of this year 34 to 20 March. However, the real date, marked in the cycle, is **March 21**. Panodore cannot ignore it, that is obvious. Such a change

(1) See above, pp. 34-35.

(2) GEORGES LE SYNCELLE, ed. 130un, 63.

can only be intentional. And the intention appears in the result obtained, and that is it. March 21 of the year 34 falls on a Saturday. By putting the *XIV lunae*, we have the previous day, Friday, March 20, the Passion of Christ. It is at the *XIII lunae*, just like at Anatole and Africanus in the year 34, that we have Passion Day on **March 19th**. This is precisely, as we have seen, the first day of creation, the transposition of the Era of Anatole by including the precyclical year. By keeping the date of creation for the *XIV lunae*, the chronograph missed this result, because on **March 21**, 34 falling on a Saturday, it put between this date and Friday, March 19, a hiatus that prevented to place the Passion of Christ. The incidence of the Passion would have been at a *XII lunae*, incidence which, having no appearance or parallelism with the evangelical narrative, can not come to the mind of any chronologist.

How could Panodorus change the Easter seat from March 21 to **March 20**? We do not know, but we can be sure that he has worked to justify his date. He will probably have used for this a similar and perhaps identical to that by which the author of the *Chronicon Paschale* transposed the *XIV lunae* of the year 31, for the need of his thesis, from March 24 to March 23 (i).

The presentation we have just made shows, on the one hand, the date on which, for the Era of creation, the transposition of the Era of Anatole into the Alexandrian cycle culminates by the precyclical year: it is 19 March; and on the other hand, the date put by Panodorus for the Passion of Christ: it is also March 19. Here we see achieved the concordance of dates required for the creation of a world era between creation and Redemption. Such a coincidence is this attainment and that the era thus constituted is indeed that of Panodorus. And the fact that this coincidence could be achieved by a move of the Easter date of the year 34 on the part of Panodorus must be a conclusion unmistakable.

In the present transposition of the Anatole era, we have not noted the concordance of the equinox with the creation of the sun. It is carried out if we take the date of the equinox after the creation of the sun. But in the time of Panodorus, the date received was **March 21**. We would be very surprised if the chronograph, which moved an Easter date, did not seek to include in its concordances the date of the equinox. **March 21**. He could do this by combining the calculation of days according to Ptolemy's account of Genesis. Ptolemy, in his astronomical calculations, counts the days from noon. And Genesis characterizes the days of creation as follows: "And there was an evening and there was a morning, it was the first day"; and similarly for the following days. Panodorus could therefore conclude and explain, that the first day of the creation, March 19, actually corresponded to **March 18/19**, from noon to noon, of the Romans; and **March 22**, to March 21/22, from noon to noon. In this way, the creation of the sun would have taken place in the daytime part of **March 21** after noon, so at the equinox. As in the year 34, Panodorus has the day of resurrection on **March 21**, there was there a chronological correspondence of more, namely, the creation of the sun at the equinox on March 21 and on that same date, the **resurrection of Christ** resplendent with light.

However interesting and suggestive this last concordance may be, it is only more a confirmation. The conclusion remains firm without it. We formulate it: the era of Panodorus is the era of creation, the transposition on the Alexandria cycle of the era of Anatole by including its precyclical year. The realized gap is eight years lower, minus three days. The era of Anatole is **March 22**, 5500 BC. The era of Panodorus is March 19, 5493 BC. The year 1 of the Dionysian era corresponds, from 5493 to March 18, to the year 5493 of the era of Panodorus, and from March 19 to December 31, to the year 5494 of the same era.

Every world era must be accompanied by a Christian era and therefore accompan

(r) See above, p. 79. It is noted that indeed, the process of the chronist, applied to the Paschal date of the year 34, has precisely raised it by one day.

chronology of the pre-existing Christ or create a new one. What is the Christian era of Panodorus? We have just seen that this chronograph, by building its world era on the Alexandrian lunar cycle, faithfully transposed that of Anatole by plaisant, as well as him, a precyclical year as the first year of the world. And we also saw that he put the Passion of Christ in the year 34, separating here from Anatole and Africanus for whom it was in 31. If Panodorus did not maintain this **traditional** date, it is obviously because the thing seemed impossible to him. The problem, in fact, arose for him in a different way than for his predecessors. They observed the short chronology of Christ's life, and he, with all his orained contemplatives, the long chronology instituted by Eusebius. He had to give two more years to the life of Christ. This could be done in two ways or lengthen it from above, if we wanted to maintain the year 31 as the date of the Passion; or the allon gerfrom below, and in this case, find a suitable date for this event. Panodorus, abandoning the first plea, abandoned the date of the year 31, obviously for the reason — one cannot conceive of any other — that this year did not offer for the day of the Assion any point of mystical correspondence with the dates of the Genesiac days of his era. While lengthening the life of Christ from below, he met the year 34 which offered him almost this sought-after correspondence. It was a day away. At the cost of a **slight deviation from the regular date of the XIV lunae**, he could put the Passion on the same date as the creation, march 19. The result was so seyant, and, by this, so tempting, that Panodorus did not hesitate and, as we have seen, resolutely placed the Passion in **this year 34** of our era. This made a difference of three years with the date of Africanus and Anatole (year 31). However, it was only two years that needed to be added. Panodorus reduced the difference in surplus by lowering the date of the Incarnate **by one year**. This was in 5501 of the era of Africanus (— year — I of the Dionysian era

5493 of the era of Panodorus). Panodorus put it in 5494 (= 5502 of Africanus = year I of the Dionysian era). On what day of the year does he place it? In the absence of other indications, we must judge by the use of Annianos, his contemporary and Africanus, his predecessor. According to the testimony of George the Syncelle, explicit for the first, implicit for the second, these two authors give a sum of whole years to the life of the Savior by putting the Incarnation of Christ on the same date as his resurrection, namely march 25. As it is on 21 March that Panodorus places the resurrection, it is **also on this date that he will have placed his incarnation**. Let us not forget that the Christmas celebration on 25 December, which leads to the Celebration of the Annunciation on 25 March, was recent in the East and that we have no information on the date of its **introduction into Egypt**. It was still possible for Panodorus to oppose him with another date. The date of the Incarnation set to **March 21** necessarily entailed the modification of all the dates of the related events: birth of Christ, meeting of the oldard Symeon, birth of St. John the Baptist. Perhaps we would find in the system indicated here the explanation of a passage of the *Chronicon Paschale* which has already caught our attention. The author of this work mentions a category of people who, while following a 532-year Easter cycle, where the dates conform to the ecclesiastical canon, are nevertheless mistaken about the other festivals, and criticize the dates on which they are celebrated in the Churches of God. And to list precisely the feasts of the cycle of Noel that we have named (1).

Would this not be precisely the system of Panodorus, whose 19-year lunar cycle had the same Paschal dates as those in force at the time of the Chronist, and which, according to the probability that we have said, and that the present rapprochement still increased, placed the Incarnation of Christ, as his resurrection, on **March 21**, and thereby entailed the change of all related events?

The year of the Incarnation of Christ, we have seen, is for Panodorus, the year 5494 of his era.

(1) Ed. Bonn, 21-22, see above.

Thus, Panodorus did not give in to the glamour of the mystical number of 5,500. It was open to Africanus and Anatole, who were themselves building their era without dependence on an earlier era, to bring about the birth of Christ in 5501 and his Passion in 5531, while observing historical accuracy for these events. But Panodorus, who built his own by a transposition of theirs, had, by a natural logic, also transpose the dates of these events (given the modifications required by the long chronology of the life of Christ). One could, however, conceive of another logic, taking as the primordial element the number of 5,500 and conforming to it the chronology itself, I will not say in defiance of historical truth, but with persuasion that it should result from it. These two processes are indicated by Georges le Syncelle when he opposes

77.y.pc; Ao tç to ti.cx07-.,!... uTtz-'r_i :.' •Aoacç (1). It is to this that Panodore has attached himself, and it is among the *lia.0r_p.aztzo*i that the author of the ExXor'r_i zpovopy.yiOE.,i; by accusing him of being seven years wrong for the date of birth. It is indeed the gap that there is between 5494, date of Panodore, and 5504 date that Georges le Syncelle advocates. It is true that by marking the date of Panodorus, the Syncelle writes 5493 instead of 5494. But there can be no doubt, if we take into account his way of speaking, that it is in fact the year 5494 that is meant. When the Syncelle compares 5493 to 5500, which is the gap of seven years blamed on Panodorus, it is 5500 finishing or completing and 5501 starting. He explains it himself very clearly in the passage where he does not know

the date of the Incarnation of Christ: &J.SL 7'),r_{ap}oupkicp zu.l ec.pzopl_{vq} 'r ,scpa' ZOLTI. 'Pci)p.exi.ouç M pTkp zs' (2). So also for the year 5493: it means 5493 finishing and 5494 starting. And similarly, when the Syncelle exposes that Africanus is two years wrong because he puts the Resurrection of Christ in 5531 instead of 5533, it is for the first date e5531 ending and 5532 beginning, and for the second of 5533 ending and 5534 beginning. This is indeed how the Syncelle presents its own date of the Resurrection: year of the world 5534, March 25, first day of the year, a Sunday (3). For Anatole and Africanus, the first day of the world was certainly March 22, but without a doubt, the Syncelle did not know it and considered the 5500 era of Africanus as identical to its own. Let us also note the passage where the Syncelle praises Africanus to

conformer to the apostolic tradition which places lake,o-/-6.) o' v; in the year 5500, -rzt (4). The apostolic tradition, for the Syncelle, can only be that which he follows himself; the date indicated can therefore only mean his own date, 5500 ending and 5501 beginning, as it has been shown more

high. In this last example, let's note the ordinal form - CTEL. And it's also the ordinal form that George the Syncelle uses towards the beginning of his work: inohi.>bcc g-rst ,sp' 'roi3 xl.rrp.ou'ri_jvwaapxov ot',-ro;)" ye.yz.v'i;a0cci. or:zovop.ty.v (5). All these various texts compared make known clearly what is the way of talking about syncelle. When he puts the incarnation of Christ in 5500, it is undoubtedly 5500 finishing and 5501 beginning. It must be the same for the year 5493 to which it opposes its date of 5500. This year 5493, even expressed in ordinal form:

(Panodore) o-co-rl)pcov acipx.cocp.v ,zulf(ire TCCT'yz-r_iVaUXoy'r,o'4.zvoç (6), can only mean 5493 ending and 5494 starting: this is only how the seven-year gap that syncelle reproaches its distant predecessor is verified. It seems that it is for not having noticed this way of dating that the chronologists, and Serruys with them (7), were led to distinguish in the alexandrine era two forms, one, specific to Panodore, with beginning on the 1st thôth (August 29th), the other,

(1) GEORGES LE SYNCELLE, 618-619.

(2) ID., 590.

(3) ID., 619.

(4) ID., 616.

(5) ID., 4.

(6) ID., 618.

(7) art. cited above, p. 86.

that of Annianus, with beginning on the preceding March 25, the first, called *aera alexandrina minor*, because lower by a few months, and the other, *aera alexandrina major*. They did not believe that they could explain otherwise the gap of seven years instead of eight that the era of Annianos would require. *The aera alexandrina minor* indicated here is not based on any other clue, it will have to be abandoned resolutely.

A distinction, certainly, is to be made, and the same expressions can be used to designate it, but it will be by establishing an inverse relationship and by extending the gap: *the aera alexandrina minor* will be that of Annianos having beginning on March 25, 5492 BC; and *the aera alexandrina major* will be that of Panodorus higher by one year and three days, with beginning on March 19, 5493 BC.

In summary, Panodorus' changes to the chronology of Africanus and Anatole are as follows:

- world era lowered by eight years (Anatole: March 22, 5501 BCE; Panodorus: March 19, 5493 BCE);
- Christian era lowered by seven years (Africanus: 25 March 5501; Panodorus: 21 (probable) March 5494), with real difference of one year (Africanus: 1 BCE; Panodorus: 1 AD);
- dates of the Passion and Resurrection lowered by five years (Africanus: March 23, 5531 and March 25, 5532; Panodorus: 19 March 5526 and 21 March 5527); with real difference of three years (Africanus: 31 AD; Panodorus: 34 AD). The year of the Passion is therefore 5526, and the text of the Syncelle which bears 5525 must be corrected (1).

It is worth repeating: everything we know about the era of Panodorus comes from George the Syncelle and lies in what we have exposed. There can be no doubt, according to the texts of this author, that Panodorus transposed the era of Anatole to the Alexandrian cycle by maintaining the precyclical year, and that he modified his calculation of the Christian era by adapting it to the long chronology of the life of Christ. The world era of Panodorus thus precedes by one year the Alexandrian era which the Byzantine chroniclers used in the following, if we take it with its natural beginning in March, but only a few months if we take it with its beginning postponed to the beginning of the calendar year,

thôth (August 29) or I^{cl}. September, according to subsequent usage. We must, in any case, avoid presenting this Alexandrian era that has become common as that of the Panodore.

Panodorus' chronological system for the life of Christ and christian son era had two flaws that might seem considerable. The first was that the birth of Christ preceded in a far too conspicuous way the traditional date of 5500. In the reform of 353, it was later, in an equally conspicuous way, but at least the dimensions of the mysterious arch were not begun. It is true that Panodorus was not the first to do so. *The Origo humani generis* puts the Passion of Christ in 5510 (2), which postpones its nease around 5480. Such a chronology could be justified by relating the mystical number to the manifestation of Christ (preaching or Passion) rather than to his incarnation or birth. No matter. It was difficult to go against the application of the traditional application. The other, more serious defect was in the date assigned to the Passion of the Savior: it contained more than one irregularity: the *XIV lunae* was set at a date, 20 March, other than that marked by the cycle, 21 March; and it preceded the equinox, hence, consequently,

(1) Our conclusions concerning the era of Panodorus were stopped when we met in V. V. Bounov, *Lekcii po istorii drevnej ccrkvi*, Petrograd, 1907, I, 96, a chronological table from the year 44 BC to the year 42 AD, where the era of Panodorus is also placed a year higher than that of Annianos. Thus, the year i of our era = - = 5609 Byzantine = 5494 of Panodorus = 5493 of Annianos. We have searched in vain in the work cited either for an explaining of the difference between these two eras or for a reference to a study in which to find it. In addition, Bolotov does not indicate on what day Panodorus began the years of his era. Perhaps Bolotov's position is none other than that of Unger, whom he would have made his own (beginning of the era of Panodorus: ter thôth 5494 BC).

(2) C. FRICK, *Chronica minora, I, Lipsiae*, 1893, p. 152.

the Passion of Christ itself, on March 19, *XIII lunae* preceded this limit. These imperfections of the Christian era of Panodorus prevented him from establishing himself. Its global era, established in connection with it, was irreparably compromised. Thus this first attempt to found a world era on the Alexandrian lunar cycle seemed doomed to failure.

THE ERA OF ANNIANOS

So would the Constantinople era triumph? Fortunately for the prestige of the scholars of Alexandria, he met a bold and skilful spirit, who, abandoning the *p_o(O-reotv.z.-il gAoo-t.ç* for *PCZY,Xy7GY.0'1'. LX;* "i1:7-prlhag, could offer for **the Incarnation and passion of Christ dates in accordance with the traditional** mysticism of numbers at the same time as with the ecclesiastical rules concerning the Passover. It was Annianos, whom we have already named. The problem for him was to place the Incarnation of Christ at the beginning of the year 5501 of the world era based on the lunar cycle of Alexandria and to find, by observing the long chronology of Christ's life, a year in which the essential concordances of the Passion were observed, namely **that** the *XIV lunae* was linked to a Friday. Until then the Passion of Christ had never in the East, and rarely in the West (1), received its day after the *XIV lunae*, but always either in the *XIV Lunae* itself (Hippolytus, Apollinaire of Laodicea, Clement of Alexandria, etc.), or on the eve (Africanus, Anatole, Panodorus). It was not possible for Annianos to find a year that contain one or the other of these solutions. A year, however, was offered, when, at the same time, the *XIV lunae* immediately touched a Friday, but fell the day before, and where the long chronology of the life of Christ from 5501 could be accorded. Since the shift of the day of the Passion was practiced in favor of the *XIII lunae*, it must have seemed just as legitimate to practice it in favor of **the** *XV lunae*, the main thing being the contiguity with Friday. And the *XV lunae* had the advantage of being the full moon. The year in question was the year 42 AD, 5535 AD as we defined it. The *XIV lunae* was on March 22, a Thursday. The 23rd, Friday, was taken for the day of the Passion, and the 25th Sunday, was the day of the resurrection. The latter date, March 25, was a happy fortune. This was the traditional date, before Panodorus. In the year 31, indeed, year of the Passion in Africanus and Eusebius, the *XIV lunae* **being** *march 25*, a Saturday, the Passion was on the 23rd, and the resurrection on the 25th. The world era established in Constantinople in 353 had preserved this date. Nothing was therefore changed to the old habits. In addition, March 25 was also the day of the Incarnation since the Christmas feast of December 25 had been received in the East (2). The approach was impressive.

One crucial point remained to be examined and settled. It was a question of seeing how this chronology could be connected to the Genesis days. Sticking to the era of Panodorus, one day before the cycle, the thing was impossible: March 23 was a Saturday, and the 25th a Monday. It was examined what the first year of creation would give by making it begin with the cycle, that is, by lowering the era of Panodorus by one year. In this case, the year of creation corresponds to the year 361. It turns out that in this year, the 25th March is precisely a Sunday. It was made on the first day of creation: thus the concordance required for the establishment of the era was obtained. In truth, the following March 28, Wednesday, the day of the creation of the stars, the moon was only on its sixth day, the neomenia being on March 23 (and the *XIV lunae* on April 5). But since the Bible does not say at what age the moon was created, the disadvantage could not be an obstacle, especially in view of the advantages obtained. We were simply careful not to attract attention to **this** point. Annianos could be satisfied with his work. First,

(1) Savoir chez le computiste de 243 (see p. 18) and the preface to the Ambrosian table (see p. 20).

(2) Even if the festival was not yet celebrated in Egypt, or was not there however sans know that it was celebrated in Constantinople and Antioch.

he obtained a world era built on the Alexandrian cycle, satisfying the indispensable concordances and walking with this cycle: it followed that the year 42 of our era, which was the year 5535 in Panodorus, became the year 5534 and that we had ainsi, placing in 5501 the Incarnation of Christ, the right measure of the years necessary for the long chronology of his life. Then the dates of the Passion and resurrection marked by Africanus and preserved by the Reform of Constantinople, namely, March 23 and 25, were maintained. Finally, the latter date, on March 25, brought together a whole bundle of remarkable concordances: creation of the world, incarnation of the Word, resurrection of Christ (1). Moreover, the course of the calendar brought the naissance of Christ for the year 5501 (9 AD) to a Wednesday, and Wednesday was the day of the creation of the sun, symbol of Christ, sun of justice. It was more than necessary to enchant the mystical soul of the monks and clerics, and it was felt that such an era must have finally prevailed over that of Panodorus, whose defects we have said, and over that of Constantinople too, with less rich concordances (2), and to which it failed to answer exactly the call of the number 5,500. The era of Annianos was so popular with such a complete and seductive mysticism, and was favoured by the clerical and monastic world, to the point of becoming, according to the testimony of Saint Maximus, the proper ecclesiastical chronology (3). To this preponderance may have contributed the official use since Theodosius I of the cycle on which this era was based.

Here is the picture of the formation of the Alexandrian era by Panodorus and Annianos, as it results from our study. It includes the whole framework of years that the operation must have been of interest. We continue until 412, the death of Theophilus, under whom lies the activity of these two computists.

Dionysian era	Lunar and World Years of		Anatole j and Alexandrian World Years	cycle Lunar cycle	
390	(XIX)	5891	Era		era
391	I	5892	I of Panodore		of Annianos
392	Ii	5893			
393	Iii	5894			
394	Iv	5895			
395	V	5896			
396	Vi	5897			
397	Vii	5898			
398	Viii	5899	5891	(XIX)	
399	Ix	5900	5892	I	5891
-100	X	5901	5893	Ii	5892
401	xi	5902	5894	Iii	5893
102	Xii	5903	5895	Iv	5894
403	Xiii	5904	5891;	V	5895
404	Xiv	5905	5897	Vi	5896
-105	XV	5906	5898	Vii	5897
-106	Xvi	5907	5899	Viii	5898
407	Xvii	5908	5900	Ix	5899
408	Xviii	5909	5901	X	5900
409	Xix	5910	5902	xi	5901
410	I	5911	5903	Xii	5902
411	Ii	5912	5904	Xiii	5903
412	Iii	5913	5905	Xiv	5904

(1) Georges le Syncelle also puts on March 25, Sunday, the end of the flood. I dare not believe that Annianos thought about it.

(2) In this era, it lacked the concordance of March 25 with the first day of creation, which was the i8. There remained the concordance of man's creation with his redemption, the Passion of Christ, on March 23.

(3) KcurcZ Tir) b.,X),... 11.51.0CCSTLY3r (1./I)epov xai Trapo'c8oar.v : MAXIM'. CONF., *Computus ecclesiasticus*, I, 17; P G, 19, 1234 D.

The Christian chronology of the era of Annianos had a weak point that could give rise to criticism. It was the fixation of the Passion of Christ to the *XV lunae*. There must have been opponents. To close their mouths, they took shelter behind a great authority. We see, in fact, a text attributed to Eusebius, but which is obviously not of him, where it is said that "Christ, having eaten the umbratic Passover and instituted the true Passover on the fifth day of the week (Thursday), which was the *XIV lunae*, **March 22**, indiction 15, was delivered the same night that led to the 23rd of the same month, and having been crucified that same day, resurrected on the 25th, a Sunday". But that is not sufficient. Faced with new attacks, they felt obliged to sacrifice the *XV lunae* for the Passion that was transported to the *XIV*, date that was justified by the same process. A text, in fact, attributed here to Eusebius (4), there to Severus (Εὐσέβιος, -:(;),) ζποὺτ.γ.ἰ'οὐ) (2) places the death of Christ in the *XIV lunae*, **March 23**. George the Syncelle himself accepted this new date (3). Undoubtedly, such a change was the result of lively discussions that it will not be difficult to place at the time when a current of opinion wanted to bring the chronology of Christ back to its true historical scale, namely the time when the author of the *Chronicon Paschale* appealed to the oldest authorities to establish that Christ suffered the Passion on the very day of the Jewish Passover in the *XIV Lunae*. Impressed, the Alexandrians, at least some, did not hesitate to throw some let to save the whole system. They therefore carried the *XIV lunae* from Thursday **22 March to Friday 23**. But how did they arrange with their Easter table? mystery! Perhaps they put the calculation to the account of the Jews contemporaneous with Christ. Or simply gave no explanation.

We saw that the beginning of the year in the Alexandrian era was March 25. This is an essential element of the system. But it is only essential in the eyes of computists and chronographers. It is quite natural that those who were not, chroniclers, hagiographers and others who wanted to use this cosmic chronology were inclined to place the beginning of it at the beginning of their usual year. Out of ignorance, or simplification, they thus went back the beginning of the world era to the opening of the current calendar year, namely August 29 among the Copts, **September 29** among the Byzantines. For example, the debut of the year 61° which, in the era of Annianos, is on March 25, 608 AD, becomes in these authors on **August 29** or **September 697**. It is according to this usage that one must explain the chronology of Cyril of Skythopolis (4).

As for the era of Panodorus as we have fixed it, we laugh.2 do not know to what extent it survived or when it disappeared permanently. It is probably she, as we have said, that the *Chronicon Paschale* is aimed at by talking about those whose dates conform to ecclesiastical rule, but whose calculation of times from the origin of the world and since Christ is at odds with it, which gives an opportunity to some who follow them to criticize the days when the Church celebrates Christmas and related holidays. This may mean that the era of Panodorus still had supporters around the middle of the century, when the original editor of the *Chronicon* must be placed. Without going as far as these drafts of which the Chronist speaks, still others could prefer panodorus's system for its greater historical accuracy.

This system, it can be estimated that it disappeared for many years when wrote Saint Maximus, who seems to have known no other ional traditional erathan that of Annianos. It is she alone who survives and constitutes the Alexandrian era now employed, and it is she who is designated when, without further specification, we speak of the Alexandrian era.

(1) *Chronicon Paschale*, t. II. Selecta ad illustrationem Chronici Paschalis, n. V, p. 112. I; indiction 15 indicates that the year in sight was 5534 of the Alexandrian era, 42 of our era.

(2) *Ibid.*, in note, and p. 116. Here the year 5534 is expressly indicated.

(3) GEORGES LE SYNCELLE, 616.

(4) Ed. SCHWARTZ, *Kyrrillos von Skythopolis*, 346.

THE ALEXANDRIAN ERA AMONG CHRONICLERS

It is important to note that the normal use of the Alexandrian era, related to its origin, basically includes the count of the years from March 25. This can be seen in the old chronographs that follow this era (I). George the Syncelle made the most categorical statements to this. "Necessarily before all things," he says, "must be shown as the beginning of time, when heaven and earth were made, that same holy first day of creation: taking that day as an indestructible foundation and as an unshakeable base, I pray... Christ to help me to clearly demonstrate that his incarnation took place in the year 5550 and to expose what happened remarkable... before and since..., that is to say since the first day of creation until the "year of the world" 6339 (2). And in an even more energetic way: "In this chronicle, let any reader assume as the beginning of each year the first day of the first month, Nisan among the Hebrews, and not the 1^{er} Thôth according to the Egyptians or the 1^{er} "January according to the" Romans or another of some nation having another beginning (3). »

Such clear statements and such absolute exclusion do not allow for the slightest doubt. If one cannot follow in the ouvrage of George the Syncelle, with the exception of the evangelical facts, the application of the principle proclaimed here, this is not a reason to believe that he could renounce it in practice. First of all, there is absolutely nothing that can be produced that would give rise to suspicion of the opposite. Secondly, the succinct nature of the work and especially the fact that he was only able to take it to Diocletian, prevented him from using sources where the indiction was indicated and explain that there was no element of control (4). goal above all, what I do not understand about those who refuse this account to George the Syncelle or hesitate to recognize it, is the little regard they make of its application to evangelical facts. "Purely mystical explanations", it is said, that is to say, apparently accidental and foreign to the era, and not to be taken into account (5). On the contrary, it seems to see the insistence of our author that this mystical aspect is the most important thing for him, and even the only importance, and it is strangely wrong to abandon it in order to judge its chronology. It should not be forgotten that any chronology that takes its starting point at the creation of the world, and that of Annianos more than any other, because it could not have been able to supplant its predecessors, is fundamentally based on mystical elements. That authors who have forgotten this origin treat the years of the world as calendar years, it is conceivable, but it cannot be the fact of a chronograph that expressly recalls it and makes it the pivot of its entire system.

The most famous chronicler who has employed this same era is the continuator of George the Syncelle, the monk Theophanes of Sigriana. It is generally thought that it makes the years of the world begin with indiction. But the matter is more than doubtful. We can only say that he uses indiction to group events, but that is not enough. We see indeed the author of the *Chronicon Paschale* develop his Chronic by the Olympiads and yet group the events by consulates without one having the right to say that he began the years of the Olympiads in the ^{first} of January, especially since we see each tetraeterid distributed also in indictions. From the Same

SALNT MAXDIE *COLitPlitUS*, I, 32: pg 19, 1249 C, seems to start the year with indiction.

(2) GEORGES LE SYNCELLE, 4. 1, th first day of Nisan, for this author, who says it explicitly, is March 25, *ibid.*,

(3) *Id.*, IO-II.

(4) Let us note at least the case of the contemporary hagiographer of Georges le Syncelle, whoa. writes *The passion of the twenty sabetes martyrs*. To clarify the date of the event, he accumulates a whole series of concordances from which it undoubtedly follows that he was entering the Alexandrian era with the beginning in March, obviously on the 25th. See PAPADOPOULOS-KERMEUS, *Eu*^{1/4}.oyil 1.10, Caert, V-7)g Y.Cd, EupLocx-71ç etytoXoyiuç, I, St.-Petersburg, 1907, p. 2.

(5) G. OSTROGORSKY, *Bz* 46, ¹⁹⁵³, 173-

The Alexandrian era was preserved in Egypt at the same time as the era of martyrs which had the same origin, both coming from the Alexandrian cycle. It is seen in the concordances of Eutychius of Alexandria. It is also seen in those of El-Makin (Elmacinus) contrary to what Mas-Latrie asserts who sees in it the era of Africanus (4). Mas-Latrie makes the same mistake about the letter of Patriarch John XI of Alexandria to Pope Eugene IV, dated September 694o according to the Greeks, 1157 of the era of martyrs and 1440 of the Incarnation of Christ. For Mas-Latrie, 694o is counted in the era of Africanus (5). The data that should serve here as a centre of concordance is undoubtedly

(5) id.

the era of martyrs, the usual era of the Copts. However, September 1157 OF this era corresponds to September 1440 of ours. The era of Africanus being one year ahead of ours, two according to Mas-Latrie, its year 6940 equals 1439 or 1438, according to Mas-Latrie, of ours; it therefore lacks the necessary concordance. It can also be taken for certain that the era of Africanus ceased to be in use in the Empire, at least as early as the fifth century, after the creation of the Alexandrian era. So what does this date of 6940 represent for the Greeks? It is very likely that the patriarch wants to indicate the Alexandrian era, which is known to the Copts, but which is much less familiar to him than that of the martyrs. The Alexandrian era has the particularity that the years of the century are the same as for the era of the Incarnation. Now, the year of the era of the Incarnation, which the Coptic Patriarch reconciles with his year of martyrs is precisely that of the Latins, 1440. He will therefore have adjusted the years of the Alexandrian era to the Latin Chr ti era adopted by him. I see no other possible explanation for this date of 6940.

Formulas

1⁰ To translate a year of the *Alexandrian era according to Panodorus* into a Dionysian year, it is necessary, from 19 March or more probably from 21 March, because of the equinox (1), until 31 December, retrans 5493, and from 1 January to 18 or 20 March, to subtract 5492.

2⁰ To translate into dionysian year a year of the *era alexandrine according to Annianos*, that is to say, of the era commonly referred to as this name, it is necessary, from March 25 to December 31, to subtract 5492, and from 1 January to March 24, to subtract 5491.

For authors who begin the year on 1^{er} th th (29 August, 30 August after the international years) or on 1 September, 5493 should be subtracted from 1st th th or 1th September until 31 December, and from 1^{er} January to 1^{er} th th or 1^{er} September, 5492.

(1) As in the proto-Byzantine era, if the day of creation being March 18, the year of the world is however counted from March 21.



PASCAL COMPUTING REFORMS UNDER JUSTINIAN

AEAS AND IRON CONSEQUENCES OF THE REFORMS

The two reforms of computing that we have explained above, that of 304 (start of cycle: 284) and that of 359 (start of cycle: 344, zy.-:-A Uo-tv; 345, ZOC^{reje}. (Actv) are the main ones and it is according to them that the world era **employed by the Byzantines are** established. We have seen how the protobyzantine and Alexandrian eras were formed. We will now witness the formation of the Byzantine era itself. But first, in order to explain its origin, we must talk about the other revisions or reforms to which computing was subjected.

We mention only for the record the revision indicated by an anonymous Armenian author quoted by Dulaurier: "During the reign of Gratian, an eminent man, who was martyred by the Arians because of his faith in Jesus Christ, undertook to examine the work of Andrew, and recognized that it was correct, except in a few points of the de ceennovennal cycle, which did not bring back the true march of time (1). These lines are too imprecise to be inferred. It is likely that the criticism made was of purely theoretical interest; in any case, it had no discernible impact on the history of computing. The same is not enough of reform or rather reforms, because there were two of them — the second closely following the first — which we are going to talk about.

THE AEAS CONFERENCE

While the 114-year-old Cyrillic table ended in 512 without giving rise to any revision, but only, as must be assumed, to an application of the system to new 19-year-old series, the completion of André's canon was to bring complications and finally provoke an attempt to unify the Pascal computus.

Andrew's bicentenary table had ceased to be in use in the Byzantine Empire since Theodosius¹ had officially adopted the centenary table of Theophilus of Alexandria, based on the Alexandrian cycle, but it had remained in force outside the Empire in the Christendoms that lived under Persian rule. We know this for the Armenians, because of their testimonies; one has the right to suppose it, in the absence of testimonies, for the Nestorians of Persia, whose situation was the same and who had given themselves very early an independent ecclesiastical organization.

Based on the reformed cycle of 353, this table featured two different Easter seats from the Alexandrian cycle, namely April 6 and March 26, as opposed to April 5 and March 25. The divergence for the Easter holiday only occurred when these last two dates fell on a Saturday. So, indeed, the

(1) DULAURIER, 58-59.

feast was celebrated the next day, 6 April and 26 March respectively, and by others on the following Sunday, 13 April and 2 April respectively. The case arose only twice from the beginning of Theophilus' table to the end of Andrew's table, namely from 380 to 552, once in 475 for the date of 5/6 April, another, in 495 for that of 25/26 March. Undoubtedly, the Armenians had to follow their bicentenary table.

This table, we said, ended in 552. The Armenians did not know how to connect the subsequent Easter to the cycle on which the table was established. This was followed by a certain confusion, a certain disorder in their fixation. After about ten years, to get out of embarrassment, we turned to Alexandria and there, it was deemed necessary to convene a conference of the most renowned computists of the time, to which would be entrusted the task of establishing a computus that would make law for all.

We are informed about this only by Armenian authors, but there are traces elsewhere of the assembly's decisions, which give their indisputable testimony in substance. Unfortunately, the information they provide us is neither entirely consistent nor very clear. We will try to get the essence out of it.

The oldest author who tells us about the event is Ananias of Iraq, also said of Ani. He wrote less than a century after the facts he reported, hence the particular importance of his testimony (1). Here is what results from the whole of his work.

The Armenians, to get out of the disorder following the completion of Andrew's bicentenary table, turned to Alexandria, the metropolis of science. The most regarded of his scholars, Aeas, called to him, in addition to those of his nation, the most renowned computists of the most diverse countries, namely, Addea of Cappadocia, Phineas of Judea, John of Arabia, Sergius of Macedon, Gabriel of Syria, Abdiah of Ethiopia, Eulogus of the Greeks, Gigas of the Romans, others; there were in all 36 people.

Such a meeting could obviously only be planned and carried out if Aeas had received a mandate from the emperor, either because he had requested it himself, or if the Armenians had provoked him by an earlier step. The imperial action, which Ananias does not indicate about Aeas, is insinuated by another Armenian author, who reports that the result of the work was presented to the emperor (2); it alone explains Iron's subsequent intervention to obtain an edict modifying this result.

Since the purpose of the meeting was unity and regularity in the celebration of the Feast of Easter, it was necessary that agreement be made for the unification of computus. What was the outcome of the conference? All Ananias tells us is that the 532-year cycle was included, but that the canon previously fixed and "reproduced," he says, below" was not touched (3).

This double assertion cannot be accepted to the letter. On the one hand, indeed, the 532-year cycle had already been used more than a century earlier by Annianos the Alexandrian. In this case, therefore, it can only be an application of this great period to the dates of the lunar cycle instituted in the conference convened by Aeas. On the other hand, the previous cycle of the Armenians, that of Andrew, included a date, 26 March, which was eliminated by the conference, as we shall say, and replaced by 25 March. The latter is the one that Ananias knows and follows. But it is comprehensible that he considered the Easter dates in force in his nation since the Aeas reform to be traditional and pre-conference. The controversy before the Byzantines explains this perspective.

(1) On Ananias de Sirak, see in Manuk ABEGJAN, *Istorija drevnearmjanskoj literatwy*, Erivan, 1948, 314-326 and 519-520 (bibliography). Unfortunately, I could not reach the book published by AS. ABRAHAMIAN under the title ANANIA KRAKACI, *Diezeragrouthioun ev domar (Cosmography and Calendar)*, Erivan, 1040, nor the complete works of Ananias published by the same scholar, Erivan, 1944. The treatise on the Passover has been accessible to us through the English translation of E. C. CONYBEARE in *BZ*, 6, 1897, 574-584.

(2) DULAURIER, 63.

(3) At the end of Conybeare's translation, there is the announcement of the 532-year period, but it is not reproduced.

Among the Byzantines, Ananias particularly attacked a character he named Iron, who was also the target of later Armenian computists. By the role attributed to it in the present history, one can get an idea of the agreement reached in the assembly of scholars. We immediately indicate its content to observe the order of the facts and better guide attention.

The problem was to resolve the discrepancies of the dates of *the Easter XIV Lunae*: April 6 and March 26 according to the computus of Constantinople, followed by the Armenians; April 5 and March 25 according to the computus of Alexandria followed in the Empire. These divergences resulted from the *saltus lunae* placed at the beginning of the respective cycle. The discussion should focus on the comparative value of cycles. There can be no doubt here that the Byzantines, seeing their cycle held in honor outside the borders, did not seek, leaning on foreign scholars, to put it back into force in their own Church, arguing its conformity with the order of creation, known by Scripture. The Alexandrians could reply that Scripture did not offer enough precision on this subject and that the symbolisms linking the Genesis days to the great events of the Redemption had to be respected. Thus, for scientific reasons in some, mystical in others, and also prestige for all, it was difficult, it seemed impossible for one of the two parties to bow purely to its rival. We had to look for a compromise. Since there was only two years of distance between the two cycles, it was sufficient for each of the two parties to *take a step towards the other by moving its cycle by one year to achieve the agreement*. This was done, for one, by lowering the *saltus lunae*, for the other, by raising it, namely, here and there, by a unit. We thus had the **common saltus lunae** giving the Paschal date of March 25, one of the dates specific to the Alexandrian cycle. This resulted, as a *quid pro quo*; by the regular development of the epactes, the displacement of the *XIV Lunae* from April 5 to April 6, date specific to the Cycle of Constantinople. Thus, each party sacrificed its own date to adopt the other's. This is the fundamental, absolutely certain, result of the meeting.

On it was built a new official cycle, one year above the Constantinopolitan cycle, one year below the Alexandrian cycle. It opened with the Easter date of 25 March and ended with the date of 6 April. The date of 25 March at the head of the cycle could only **win a common vote**. This day was particularly in honor among the Alexandrians, who saw it as the first day of creation, that of the Incarnation and that of the Resurrection of Christ. It was also to the Byzantines who linked these last events to it, and it reminded the Armenians at least of that of the Resurrection. This new cycle survived in its pure state, that is to say, and as for the order of the years, and as for the dates of the *XIV Easter lunae*, among the Nestorians of Persia. It was **preserved to us** by Elijah of Nisibe (1) and by Simeon Sanqlâwâjâ (2). Both, in fact, put in the first year of the cycle the *XIV lunae* of 25 March and, in the last, that of 6 April. These same dates are also found among the Armenians, but these, after Iron's intervention, returned, like the rest of their side the Alexandrians, then the Byzantines, to their own cycle. The maintenance by the Nestorians of the cycle established by the Aëas conference must be explained simply by the fact that the **Eastern delegates will have returned home before Iron's actions and will have ignored the consequences**. Would they have known them in the sequel that they could, being outside the Byzantine Empire, with impunity ignore them. To the Nestorians, we must join the Jacobites of the borders of Mesopotamia, who, according to George, bishop of the Arabs (city century), had the same peculiarities of computing (3). These testimonies, it will be admitted, are of the first order to establish that there was a change in the

(1) *Eliæ Nisibeni opus chronologicum*, ed. I.B. CHABOT, Latin version (1909), 122 and 139. *chronologie d'Élie BarSinaya*, Paris, 1910, p. 314-315, p. 337.

L. J. DELAPORTE, *La*

(2) Fr. *Die Chronologie des Simeon .. gangldayjâ*, Leipzig, 1889, 18-19.

(3) V. RVSSER., *Georgs des Araberbishops Gedichte und Briefe*, Leipzig, 1891, 114-115.

cycle with Aeas. But there is another, just as important, more can be said, since it emanates from the emperor Heraclius himself. This is the computing booklet written by the Alexandrian Stephanos on behalf of and in the name of basileus (i). Looking at the examples given, we see that the XIV *Lunae* of 21 March belongs to the 15th year of the cycle, and that of 5 April to the 19th year, that is to say that these Easter dates are raised by one year compared to the Alexandrian cycle in which they occupy the years 16th and 17th respectively, and lowered by one year compared to the cycle of Constantinople, where they are part of the 14th and the 18th year. The difference with Nestorians and Jacobites is that here, April 5 took the place of April 6, a change that is due to iron's intervention. The fact remains that the imperial pamphlet clearly testifies, in turn, to the order of the years of the cycle as established by the Aeas Conference. There can be no doubt about that. — *The Aeas cycle, which became that of the Nestorians and the Eastern Jacobites, is reconstituted in the table of pages 54 and 55, column V. The cycle of Heraclius is in column VII.*

Finally, to crown the reform and ensure its stability, it was decided to apply the 532-year period to the dates of the adopted cycle, and it is likely that a picture of the first series was drawn up. For Armenian historians, this five-centenary cycle, as they call it, was connected to the cycle of Andrew (2), that is to say, at the same Passover of April 4, namely, in fact, in 562, but this is, no doubt, an arrangement earlier in Iron: the period of 532 years of Aeas must obviously have had the same starting point as its first cycle of 19 years, concretely in 552.

The lunar cycles of Constantinople and Alexandria served as a support for their respective world eras. Did the Aeas reform have a backlash in this area, and did the common cycle lead to a common chronology? We do not have any information on that, but it is difficult for us to assume that this result. It must even be regarded as psychologically impossible. Indeed, if there were only two years of difference between the two cycles, which made agreement easy by abandoning one unit on both sides, there were 17 years of distance between the two chronologies, and it was necessary of all necessity, for them to meet by the common cycle and merge into the same, that one of the two was moved by 18 years, the other being from one. Who, then, alexandrians or Constantinopolitans, would have agreed to be the sacrificed party? The latter, in particular, firmly convinced of the natural nature of their cycle and, consequently, of the absolute value of their chronology, were in no way prepared to deviate from it and could only regard the new cycle as a practical unification moyen. As for the Alexandrians, who seemed to have benefited from the new cycle, since the starting point was one of their own dates, it is necessary to examine whether they did not seek to accord with this cycle their world history. There were two ways to do this.

The first was to reduce their era by one year and, in this case, on March 25, XIV *lunae*, the beginning of the cycle, fell on a Monday, and the creation of the moon the following Wednesday would have been put on its sixteenth day. This was a significant improvement over the current system that brought the creation of the moon to its daily life, but it had the correlative effect of putting the first day of creation on Sunday, March 24. This destroyed the beautiful harmony established by Annianos, where Sunday, March 25, was both the first day of creation, the day of incarnation and the day of resurrection. Such a consequence could only make the Alexandrians hesitate to move their era in this way.

The other way for the Alexandrians to grant their era to the new cycle, was, by keeping it,

(1) H. USENER, *De Stephano Alexandrine Commentatio*, Bonnae, 1880, 52. This study has been reproduced in his *Kleine Schriften*, III. Le traité d'ÉTIENNE had been published by Du CANGE among the pieces annexed to his edition of the *Chronicon Paschale*: see reproduction in *PG*, 92, 1124-1132 (especially 1129 AC) and ed. de Bonn, t. II, 210-218 (especially 216, 218).

(2) See chap. X.

to place at creation a precyclical year, in the manner of Africanus and Anatole, a year corresponding to the 19th. It is not possible for us to know whether they have drawn up such a report. But, whether they thought about it or not, the real result remained the same: the Aeas cycle left the era unchanged. It is only much later and in another milieu that we see an era based on the Aeas cycle. This environment can only be the one where the cycle was preserved, namely the Nestorian Church. Nestorian authors of the XIII and XIV century, .anqlà.vviiĵâ (1) and Mar Abdik), Metropolitan of Nisibe (2), actually present an era that corresponds the year 5181 of the world with the year I of the Greeks. The era of the Greeks being 311 before ours, it follows that the **world era of these authors is 5491 ECB**. On the other hand, the Aeas cycle having its first year in 552, the addition 5,491 H [552-1] — 6,042,318 x 19, shows that this world era is well built on the Aeas cycle.

In this era the previous year is not counted: it is the same, as we indicate on the other hand, in the Byzantine system according to Psellos. We do not believe that the era thus calculated was traditional among the Nestorians. It does not appear in Elijah Bar Sinaja, older than the two authors we have just named. This chronograph is content to indicate the various systems it knows of world chronography without showing any preference (3). We do not see that of Sanqlâwâĵâ and Abdio, which marks 5180 years from Adam until the era of the Greeks, but we see that of Annianos which gives for this same object the number very close to 5,181: he declares it inaccurate because in this total the interval "exit from Egypt-construction of the Temple" is declared of 640 years, which "has neither the testimony of the Bible nor that of nature" (4). Moreover, the Syrians had already for many centuries their way of counting the years: it was the era of the Seleucids, and no doubt they used it from the beginning to calculate and locate their Easter. But since this era did not proceed from a cycle, it had to be connected to the cycle in use by adding or subtracting a certain number of years. For the cycle of Aeas, according to [Sanqlâwâĵâ. and Elijah Bar Sinaja](#), it is the number 12 that must be added to the years of the era (5). This number is the remainder of the division by 19 of the number 5180, which is the total of the years from Adam to the end of the Greeks. By adding 12 to the years of the Greeks and then dividing by 19, we obtain in the rest the beloved during the cycle. Élie Bar Sinaja specifies that for the cycle of Annianos it is 13 that must be added (6). This cycle, in fact, as the era **qui is attached to it**, is of a higher unit than the cycle of Aeas. The Byzantines who did not have this advantage of a traditional era resorted either to that of Diocletian or to the world era that they had to create on their own cycle. The latter eventually prevailed. And it is probably in imitation of the Byzantines that the Nestorian chronographs also built their era.

This look at the cycle and era of the Nestorians is not useless. It allows us to conclude with greater force that both the Alexandrians and the Constantinopolitans and those who used their cycle held the cycle of Aeas for a purely practical arrangement without affecting the calculation of times and that, here as there, the existing world era remained aligned with the **respective anterior cycle**.

The date of the Aeas Reform is known by Armenian computists. They place it in the tenth year after the end of Andrew's table (552), so in 562. It is also from 562 that they start the great cycle of 532 years that they attribute to him and which is theirs.

(1) Fr. MÜLLER, *Op. Cit.* 24.

(2) MAR ABDIŞO, *Ordo judiciorum ecclesiasticorum*, I. I, tr. I. C. ro : Latin version of I.M. VOSTÉ, in *Codificazione canonica orient.*, *Fonti*, series II, 15. *Caldei-Diritto antico* II, Typis polyglottis Vaticanis, 1940, p. 60-61.

(3) ÉLIE BAR SINAJA, ed. CHABOT, *versio latina, pars prior*, I-II; trad. franç. de I. J. DELAPORTE, 3-15.

(4) SCULPIN, *ibid.*, 8; DELAPORTE, 12.

(5) A.NQLÂWÂĴÂ, in Fr. MÜLLER, *Op. Cit.*, 24; ÉLIE BAR SINAJA, dans CHABOT, *VerSiO, pars posterior*, 139 and 147; in DELAPORTE, 338 and 346.

(6) In CHABOT, I. C., 142 and 143; in DELAPORTE, 341. Here the division of the year of the world 5,181 by 19, remains 13, is expressly indicated.

IRON'S INTERVENTION

The agreement on easter dates was barely realized that the problem was called into question. Let's go back to The Story of Ananias.

Iron, a doctor belonging to the sovereign's court in Constantinople, then intervened. He was a stranger; many said Alexandrin. Offended that he had not been summoned to the meeting of the scholars, he resolved to destroy their work. And since he had constructed a false chronology opposed to Scripture and other chronologists, so he made the calendar. And he changed the 19-year-old cycle to April 6, and he replaced that date with April 5, and he made it the starting point of the period (1). The "false chronology" that Ananias complains of to Iron is that which consists in giving the world the duration of 5 500 years until the birth of Christ: he based it, according to Ananias, on the dimensions of the Ark of the Covenant (2).

What justification did Iron provide for his system? One of the most serious objections to Alexandrian cosmogony was that by putting the first day of creation on March 25, it placed the creation of the moon at its day life, the neomenia of the first year of the cycle being on March 23. Iron, while adopting the Alexandrian chronology as to the first year of the world, resolutely abandoned it, despite its mystical character, as to its first day. He considered it more important **that there should be concordance between the creation of the moon and the Easter date**. However, in the Alexandrian chronology, which Iron observed, the *XIV lunae of the first year of creation fell on a Thursday*. Iron put the creation of the moon on Wednesday at its xme jour so that it would have its brightness, at the xive, on the night of Thursday. He thus expressly gives 13 days of age to the moon when it was created. He breaks them down into 8 days of epacts plus another 5 days (3). These 8 days of epacts are certainly counted **by taking** as the starting point of the lunar year the *first January* or the *first March* (it is the same account). The Paschal neomenia of the first year of the cycle being on March 23, there is from March 23 to 3, end of the lunar duration started on **March 1**, 8 days of epacts, auxquels are added the 5 days that run from March 31 to April 4 inclusive, which is Wednesday, half day of the moon at its creation.

Having thus established the creation of the moon on its crumb day, Iron connects this day with the first day of the sun, created in the sametime, and starts from there the course of the two stars, so that the first year of the cycle begins without epacts. The second has II epacts, and as much each of the following until the 20th, **first of** the second cycle, where the epact, of 12 days instead of II, completes the development of the epacts: hence that year is without epacts, and the cycle starts again with the same sequence of epacts and the same Paschal dates (4).

This is the essence of Iron's system according to Ananias' paper. Other particularities, which I call for discussion, will be set out below. Against this system, Ananias makes the following criticisms:

1) On the world chronology: there is no connection between the Ark of the Covenant and the number of years up to Jesus Christ (5).

2) On the creation of the moon at its half-day: the works of the Creator having been produced complete and perfect, the one could not be created imperfect and half-full, but perfectly round and in its full (6).

3) On the date of April 5: it attracts anathema against those who celebrate the Passover with

(r) Trans. CONYBEARE, *BZ*, 6, 1897, 179. See also DITLAURIER, 92-94; ID., *Chronique de Mathieu d'Edesse*, Paris, 1858, p. 245-246.

(2) *Ibid.*, 582. This is the mystical reason put forward by Hippolytus.

(3) *Ibid.*, 580.

(4) *Ibid.*, 580.

(5) *Ibid.*, 582.

(6) *Ibid.*, 582.

the Jews. Indeed, when April 5 falls on a Saturday according to Iron's calculation, passover is celebrated on Sunday, April 6, which is the day on which it falls among the Jews. Ananias tells us here how Iron's supporters think they escape the objection. "They count," he says, "in this case Saturday as the day of the full moon (i.e. the *XV lunae*) and April 6 as the XIV nisan." Such a position could, of course, only have theoretical value. But Ananias pursues them and affirms, I do not know, that Jews and Samaritans still celebrate the solemnity of the Passover on the XVI nisan (r).

We have described Iron's work as the present Ananias. But this presentation, as we shall see, is subject to reservations and requires retouches.

Iron succeeded in bowing to his views the emperor Justinian and the latter carried an edict that modified the table of Aetas by imposing instead of April 6 on April 5 (2). Did the edict contain any other elements? We do not think so. There could be no question, in fact, of going back on the previous edict, whose ink was still fresh, to take exactly the opposite side of it. These are things that imperial prestige does not allow. The only conceivable way is that the measure proposed by Iron was to be framed in the previous edict as an improvement. That is why we believe that Iron's system, as explained by Ananias, does not entirely correspond to reality, but reflects a later stage of controversy. Thus, despite the Armenian author's express assertion, I do not take it for sure and I even hold it implausible that the computist changed the Aetas cycle at the same time as he changed its date of April 5th. But we have much better on it than this presumption, to savoir the use of this cycle by Heraclius: he would not explain himself if Justinian had removed it and replaced it with another. Undoubtedly, Iron respected it.

It is by fidelity to the mystical era of 5500 BC, that of the i.-.xx), (46LY_T:t4 that Iron wanted to put back into use the Paschal date of April 5, which was related to it. By moving the date of creation from March 25 to April 1, with the creation of the luminaries to April 4, he was delivering the Alexandrian era from its only, but important, intrinsic difficulty (creation of the moon to its day life).

In addition to this chronological consideration, there were others of a psychological nature. Was it appropriate to change the tradition of the Orthodox Church to conform to that of the heretics? Was it appropriate, even though Rome had finally adopted the Paschal computus in use in the Empire, to compromise this understanding and to bring trouble with novelties?

Technical arrangement, moral reasons, all this helps us to understand why and how Iron could propose and have approved, instead of April 6, that of April 5 more satisfactory in view of the traditional chronology, the prestige of orthodoxy and the maintenance of religious peace.

It was to this element, the return to the date of 5 April, that the imperial edict obtained by Iron was to be limited. The accusation against him of having changed the traditional cycle by putting this date in mind must have occurred when, the cycle of Aetas being abandoned, the Alexandrian cycle was put back into force. This cycle, which was on April 5 in its first year, was then naturally attributed to Iron, either by Ananias himself, or by later computists who amplified his narrative.

That the cycle of Aetas, with the exception of the case of the Nestorians, could not survive, it is understandable. Iron's retouching was fatal to him. It certainly aroused criticism, if only from so many scholars who had come from so far away for a result that had so little regard. The opposition did not remain only theoretical. The Armenians, for whom the conference had been held, could not suffer this attack on the common agreement. Because of this agreement, they retained the date of 25 March; mais they energetically postponed the date of Iron, April 5, whose concordance with the

(i) *Ibid.*, 581.

(2) The edict is not formally indicated by the Armenian authors, but results from the imperial intervention and the very application of the new date; Guiragos, moreover, states that "the Armenians did not receive this fake [computus](#), nor the Council of Chalcedon, for they were under the domination of the Persians" (DULAURIER, 63-64).

Saturday was already near in 570. (*See their cycle in the table of pp. . 54 and 55, col. XVI*). Their dissent was all the easier because they were outside the borders of the Empire. In addition, they found in this new state of affairs an opportunity and a reason to resume their previous cycle, which they had replaced only for the greater reason **of ensuring the uniformity** of the Pascal computus. The Aetas cycle, barely adopted, was therefore abandoned by them almost immediately.

Armenian computists have retained the name of Aetas and the memory of his conference, but they have forgotten the precise work that was accomplished there. Of course, they conceived it as a confirmation of their previous computus and they camped, one opposite the other, Aetas, the maintainer of tradition, and Iron, the innovator.

For their part, the Alexandrians, satisfied to find, thanks to Iron, the Paschal date they had sacrificed, had no reason to retain a cycle where this date, not emerging as a natural consequence, had a fictitious character. So they resumed their own cycle.

As for those of Constantinople, the conference of Aetas had been an opportunity for them to re-develop their own cycle, with a natural foundation, in front of the official cycle, that of Alexandria, and on this they had to be supported by the oriental scholars from beyond ~~their~~ borders, and even by the Jewish scholar who had also been summoned. All of them, in fact, were dependent on the reform of 353. They had both agreed on a new round only with a view to uniformity. Since it was not held at ~~all the dates set to ensure it~~, this cycle no longer had any purpose. Only those, namely the Nestorians of Persia, who did not know the intervention of Iron and the subsequent imperial edict kept it. The still kept it, but with the modified date, the emperor Heraclius, by a kind of legal continuity.

As far as the Constantinopolitans were concerned, it cannot be said that the date of 5 April found them hostile: as well as that of 25 March, they were accustomed to it, namely since Theodosius I had officially adopted the table of Theophilus of Alexandria. These dates even took on the character of a church tradition, when the Armenians, by postponing the date introduced by Iron, mixed this question with their other grounds for religious dissension. This is what explains this paradox that, in the very time when the Constantinopolitans are taking on the task of making their own cycle prevail and, by this, their own chronology, they inscribe in it, instead of the dates of its own and natural of March 26 and April 6, those of March 25 and April 5 which are foreign and adventitious to it. Conversely, it can be said that, depending for inescapable ecclesiastical reasons on the Alexandrian computus as to the Easter dates, they focus their effort **of autonomy and prestige on the maintenance and re-establishment** of their own cycle as to the order of the years and as to the chronology of the years of the world which has its foundation there. This was their attitude towards the Alexandrians.

In front of the Armenians, their position was much more delicate. They had to defend, another paradox, the date of April 5 against April 6 which stemmed from their own cycle, observed by their opponents. The attack concerned two leaders: one, of religious and canonical order, the other belonging to the natural order.

We already know the first: it is the celebration of the Passover with the Jews, on April 6, whenever April 5 falls on a Saturday, a fault that attracts the anathema of the Council of Nicaea. And we also know how, according to Ananias, Iron's supporters responded to it. They counted, in this case, April 5 as the fifteenth day of the moon, and April 6, Sunday, as the sixteenth. Unfortunately, the Armenian author does not tell us by what process they arrived at this result. It is not even certain, from the selfns in the translation of Conybeare, if it is to the aforementioned incidence only, or to each *enneadékaétéride* that this operation was made. In any case, the favourable result must appear to be the regular consequence of a system and **not to be an arbitrary** exception, which it would be difficult to justify and which would therefore turn against the said procedure. However, this result

is precisely the one that the 71²,v-routoi3v•itç goes.% é,ccITXoi3v,-.E.. ç. , which we will talk about later, get to the 16⁰ year of their cycle. Could this be the process, which Ananias is thinking of? A. Mentz, without knowing the text of Ananias, believed that he could and had to identify the calculation of **these** computists with that of Iron, who thus becomes in his eyes the inventor of their system (i). Certainly, if he had known him, which was possible to him, he would not have failed to see in it the most brilliant confirmation of this origin.

We would gladly agree with Mentz's conclusion, if she could explain everything, but it does not; it even encounters insurmountable difficulties. Mentz was based on the testimony of various Armenian authors, moreover rather late, quoted by E. Dulaurier. So let us question them.

"He (Iron) changed the 17th into 16th and the 6th into 5ths (these are the april calendars), a calculation by which one obtains an erroneous Passover and in advance of a week. This error is not found in all parts (understand: *series*) of the deceedmnoennal cycle, but sometimes occurs during the five-centenary period (*that of 532 years*). Iron was based on the sum of the fractions of the five, which he calls *weedy day* and which he adds to the epact. This is how the Passover falls falsely and within the equinox (2). »

"Iron, not having been summoned to the meeting, regarded this oversight as an outrage, and when the scholar Eulogius came to bring the new calendar to the emperor, Iron undertook the examination of the numbers (read: *fractions*) 5 and 6, something that had never been done, for the 5th and 6th are fractions, one of the sun and the other of the moon. But he adopted an entirely opposite system, changing on April 17 in 16, and on 6 in 5. This number 16 does not cause, it is true, any error; but the 6th, in 95 years, brings us on Sunday, while the 5th produces for them on Saturday, in accordance with Iron's calculations, and they celebrate the Passover at the same time as the Jews, thus falling under the anathemas of the Council of Nicaea (3). »

It is these texts, and in these texts the mention of the calculation of 5 and 6 that led Mentz to see in iron's process that of the **very** 7rEvTarr.Xoi:PiTsg. Such an identification, to be fair, should be able to make the date of 16 April right. Mentz does not explain anything about this. However, he could have seen that this date has nothing to do with the calculation of the 7rE. γ^=X0i: :rrZÇ. This calculation, in fact, is exercised only on the Easter dates received, namely, those of the Alexandrians, and which, being official, are also theirs. Its purpose is to determine what real day of the moon they are on. But in the Alexandrian calendar does not exist the date of April 16 and no other official calendar, at least in the East, receives it: it is everywhere the 17. The date of the 16th is therefore out of perspective, and therefore out of the examination of the 7r.svz'curcXoi3v7E4. It is detestably the aim of these computists, but it can be said that they were in no way intended to justify divergent dates or to modify the existantes (4). The translation of their theory into practice would have led to the change not only of the date of 17 April, but also of 13 others, in all 14 out of 19. And as for the date of April 17 itself, which is year 16 of the cycle of 7r.e.vTv.7uXoi3vT.e.c, **the mechanism of their system dated back to *lunae*, not to 16, but to April 15.**

I have just recalled the cycle of TCE:\erocn?,o;iv:: F4:. We know from St. Maximus that the first year of this cycle corresponded to the fourth year of that of the Alexandrians and, therefore, that

(i) A. MENTZ, Zur byzantinische Chronologie. Eine Osterreform zur Zeit Justinians, *BZ*, 17, 1908, 471-474.

(2) DULAURIER, 58, 60. "Inside the equinox we do not see how.

(3) *Ibid.*, 62-63. We do not understand how this author can say that the date of 16 April does not produce the same result as that of 5 April. It is under the same conditions. The coincidence with Saturday comes every 95 years four times in a row, then after 247 years apart (r 3 periods of 19 years) again four times in a row every 95 years. And the alternation is repeated. The first series of coincidences: April 16 saturday is about the beloved 455, 550, 645, 740. If such coincidences have never been met with friction, it is because the date of April 6 for the Easter X/ *V lunae* was never practiced among the Byzantines.

(4) See next chapter.

it was the same one from Constantinople *zotTec pl'icnv*, having its first Easter date on April 2. However, this is certainly not the Iron cycle, which Ananias says it began with the Easter date of 5 April, but which we have serious reasons to believe, set out above, that it began with the Easter date of 25 March. We have here a new difficulty, let's say more, an impossibility to identify the calculation of Iron with that of *trEv'roorXoUv'ra.. ç*.

Thus the process used by those who ananfights to count their Easter date of April 5 as *XV lunae* has nothing to do with that of *the 77.sv'roc7'noi:ivT.sç*. But in addition, we consider that it cannot consist either in the calculation concerning the numbers 5 and 6 of the fractions of day, attributed to Iron by computists that we have cited. Indeed, neither Ananias, who reports the aforementioned account, relates it to this calculation, nor the authors who speak of this calculation, give it such a result; but the effect they attribute to it is only to advance the Easter dates from 17 and 6 April to 16 and 5 April, which is quite different.

From the identification between iron's process and that of the *7,-,ev-rocrXoijyrzc.:*, A. Mentz drew a primary consequences⁽¹⁾. Seeing that Saint Maximus reproaches these computists for their 16-year deviation from the ecclesiastical chronology, that isto say Alexandrian, a gap that characterizes precisely the Byzantine era, and believing because of this that there is a link between this era and their calculation, he comes to conclude that Iron, as author of this calculation, is the creator of the Byzantine era. In this way, a major problem would finally be solved.

That this is not the case, it seems from the difficulties we have raised against the above mentioned identification. But would this be proven that it would still have to be established that the Byzantine era derived from the system of *na:v7.ccn'XoUvl-sç*. Nothing is less obvious. In addition, as far as Iron is directly responsible, two peremptory reasons make the authorship of this era a thing of the same place. The first is that, since every world era is based on a specific cycle, the Byzantine era does not correspond to the Iron cycle. The other is that we know for a fact what the era of this computist was; both Ananias de Sirak and the anonymous Armenian of Dulaurier reproach him for counting 5 500 years from the creation of the world to Jesus Christ, a calculation which, at that time, is the peculiarity of the Alexandrian era. We have indicated above how it was after this era that he justified the Easter date of 5 April. Iron is certainly not the inventor of the Byzantine era.

We have seen how its supporters responded to the religious and ecclesiastical reproach of celebrating the Passover with the Jews and attempted to explain their process.

The other difficulty, of a rational nature, raised by the Armenians, is not explicitly formulated by the texts we have quoted, but it emerges from the accusation that they make against the Byzantines to celebrate the Passover a week in advance (savoir, in this case of April 5 with Saturday). This reproach can only be conceived if the *saltus lunae*, from which the Easter date of 5 April results, is not observed in its traditional and normal place, that is to say at the head of the cycle. Moreover, it has significance only in the consideration of a common round between the two opposing parties. It is to reject this accusation, that is to say to rationally justify this date of April 5 that tends the calculation of the numbers 5 and 6 concerning the fractions of a day. The Armenian authors put in fact a link between this calculation and this result: "He (Iron) changed on April 17 in 16 and the 6 in 5... Iron was based on the sum of the fractions of the five... (anonymous); "he undertook the examination of the fractions of 5 and 6... changing the 17 into 16 and the 6 into 5" (Guiragos) (2).

We will have noticed this date of April 16 reproached to Iron by the Armenians. It is not easy to explain. What can be said is that, unlike 5 April, she was not wanted.

(1) A. MENTZ, *op. cit.*, 473-47-1.

(2) Dur, AuRIER, 60 and 63.

for itself, since the common agreement existed for 17 April; it was simply to be a consequence of the system set up to justify the date of 5 April. What can still be assured is that this date of the 16th was not included in Justinian's edition provoked by Iron, and that it never appeared in a Paschal table in use. And if it was indeed Iron who put it forward, it can only be because of the controversy following the edict imposing 5 April and as part of the system built to justify this date. Finally, what must be said is that the calculation has meaning and scope, like the attack, only in the context of a common cycle, where the displacement of the *saltus lunae* must find a rational justification. This common cycle cannot be that of the Alexandrians, which the Armenians never followed; in this one, moreover, there is no need to resort to a special calculation, because the *saltus lunae* linked to the date of 5 April is at the head of the cycle, and the problem that may arise is only why it is this date that opens the cycle. Of common cycle between the Armenians and their opponents defenders of April 5, there can only be that of Aeas, ephemeral, or that of Constantinople. At OG tv, which was that of the Arméniens before the reform of Aeas and which is almost immediately become so again. The Constantinople cycle Y.7.73'. cpi) G.tv was never followed by the Armenians. If the common cycle were that of Aeas, Iron would belong to the calculation which is attributed to him by the Armenians. Otherwise, it should be related to authors after Iron and prior to the triumph of the Byzantine cycle ZOE.7aC rQ1'.) cnv and the Byzantine era proper; it was then attributed to Iron as responsible for the date of April 5.

As for the calculation itself, it will probably always remain hidden from us. Only the general picture can be drawn.

The fractions of which the Armenian texts speak are the divisions of the day obtained by the division of the hours (12 in number) into 5 fractions each, the total of which (12 x 5) reaches 60 fractions, called *Xsn-c-c',c* by the Byzantines. This sum distributed over the years of the cycle was to compensate for the day in addition to the total of the lunations on the total of the solar years in the enneadékaétéride. Iron's calculation or attributed to Iron was to result in the moon jumping in such a way as to obtain the desired Easter date, April 5. One must therefore assume a distribution order suitable for providing this result. The order that was instituted also led to the date of 16 April. Whatever it comes to me combinations in mind, I prefer here not to risk any.

RESULTS OF THE REFORMS AND ATTITUDE OF COMPUTER SPECIALISTS

The result of the reforms of Aeas and Iron was to definitively consecrate among the Byzantines the Paschal dates of March 25 and April 5. From now on, all the forms of the Byzantine cycle, where these dates are abnormal, will take this into account, either because they present, like Iron, a justification, or because they refrain from doing so. In the treatise of the computist George, composed in 640 or 641 to advocate the use of the Byzantine era with the corresponding cycles, we see the author, when he exposes the continuation of the lunar epacts, warn that the sum of the nineteenth parts of day that make a

day —¹⁹ (from which the *saltus lunae* results), is carried on the 17^e year, without giving any reason other than the 9 tradition: "We received it, 7.2pE. X6olisv", and that consequently the Easter date of this year is 5 April and that of the following year is 25 March (1). Georges abandons for his calculations the division of the day - into sixtieths, probably not liking the subtleties to which it gave rise. — *The George cycle is reproduced in column VIII of the comparative table, pp. 54 and 55.*

We know that it was used by the author of the *Chronicon Paschale* to obtain the Passover and

(i) Fr. DIEKAMP, Der: Winch und Presbyter Georgios, *13Z*, 9, 1900, 27-28.

the Passion of Christ on March 23, 5540, according to a particular system of distribution of the sixtieths per year (6^2-0) combined with the annual progression of the quarters of the leap day (i). One might wonder what his attitude was to the problem we are dealing with and which must also have arisen for him, since, apart from Aneas's ephemeral decision, the dates of 5 April and 25 March were traditional in the Empire, and wonder in particular whether he was using this system to justify these dates. No clue can answer on this, except perhaps the $\tau\rho\omicron\chi\epsilon\varsigma$, II (lunar). We see inscribed the Easter dates of April 5 and March 25 without the *saltus lunae* that commands them. If this state, as it is possible, goes back to the Chronist, he will have to sing that it is out of pure conformity, without any conviction, that he will have inserted these dates, because they are official, not deeming for this to have to modify the march of the epacts.

The division of the day into 60 *lepta* is also seen in other computists, but their distribution in the years of the cycle is not the same. " In the $\text{ITE:VTY-77X0}\epsilon\text{3V7,ZC}$, it is 5 *lepta* per year, and it is in the twelfth year ($12 \times 5 = 60$) that they get the whole day and place the jump of the moon. Their system is particularly special and is not intended to justify the dates of 5 April and 25 March, which are accepted as a fact. They are also accepted as a fact by the anonymous Florentine (1092) edited by Karnthaler (2). This computist does not see the way to justify them starting from the first year of the cycle. That is why he warns to count as the first year the 17th the one precisely where the *saltus lunae* takes place and where the Easter date of April 5 is placed; and it is from there that he leaves to distribute the 60 *lepta* through the years of the cycle, in a very regular proportion. At each year are awarded 3 *lepta* but after 6 years is added a *lepton* which gives for 6 years 19 *lepta*. With the 18th year, we complete three series of these 19 *lepta* (18

, for a total of 57 (19×3). It remains 3 *lepta* 6 the normal number of each year, for the 19th, and thus is reached the total of the 60 *lepta* that make the whole day. " The *saltus lunae* is then done, very regularly, the first year, which is the 17th of the cycle.

The treaty we have just been talking about is dated 6600. It is also to the same year that the chronology treatise of Psellos, edited by Gertrude Redl(3), also belongs. We see a completely different system being used here. We cannot give it in detail, but here are the main features of it as far as the present problem is concerned.

The division of the day is 24 hours. Each hour is divided into 5 *lepta* each *lepton* into 4 points (a7iyt.tou), each point into 12 golden moments Moments (Formed) (4). The *saltus lunae* is made in two leaps: half a day at the ide year, the other half day at the 17th: but from the ide year, the Easter date is brought forward and put to April 16 instead of the 17th, as at Iron C5). This date of 16 April is justified by a special calculation, the bases of which are as follows. The 19 years of the cycle make, at the rate of $365 \frac{1}{4}$ days per year, a duration of $6,939 \frac{3}{4}$ ($3/4 = 18$ h). They have 235 lunations. But each lunation having 29 Days $\frac{1}{2} - 3$ *lepta* 1,2, their total gives 6,939 days 8 $\frac{1}{2}$ hours, a difference in less than 9 hours 2. This will have to be absorbed by being distributed throughout the 19 years of the cycle, easy distribution, because 9 hours 1 $\frac{1}{2}$ equivalent to 190 stigmati, we will add 10 stigmati to each year of the cycle. Taking into account this addition, the 12 years of the cycle which

(1) See above, chapter 5.

(2) F. P. KARNTHALER, Die Chronologische Abhandlungen des Laur. Gr. Plut. 57, Cod. 42, 154-162, *BNJ*, 20, 1933. 2-64 (see pp. ro-ii).

(3) Gertrude REDL, 1, a Chronologie appliquée de Michel Psellos, *Byz.*, 4, 1927-2928, 197-231 et 5, 2929, 229-286: In, Studien zur technischen Chronologie des Michael Psellos, *BAL*, 7, 1929, 305-351.

(4) *Byz* 5, 2929. p. 257.

(5) *Byz*. 4, 229-230.

have 12 lunations have the duration of 354 days $1\frac{1}{4}$ -I- 2 hours + 4 *lepta* 1 12; the other 7, which are embolismic (13 lunations) have the duration of 383 days $1\frac{1}{2}$ '4 -I- 3 hours and 3 *lepta* (i.e. 383 days, 21 hours and 3 *lepta*). Each cyclical year begins at the &7VizUGv, (beginning of decay) of the Easter moon of the previous year. The first year begins on April 13 of the 19th year, at the very moment of the &74-ivou,, at 6 p.m. and an I 2 *lepton*, and ends after the 12 lunations traveled, the following April 2 at 9 p.m. The calculation is thus made for each year, taking into account the embolismic years (13 lunations); it brings the date of the IDE year to April 16 (1).

This date of 16 April is also that of the anonymous Vienna (of 1273) published by Buchegger. One does not see the meticulous calculations of Psellos, but like him, he operates in two leaps the *saltus lunae*, in the 16th and 17th years (2). — See the cycle of Psellos in the comparative table of pp. 54 and 55, col. XI.

The date of 16 April has undoubtedly remained theoretical and it is not credible that Psellos and those who followed his method claimed to change traditional practice. It is this one that, apart from the exceptions that we have just said, commonly appears in the Easter tables, either that, in relation to the ascent of the Easter seat in the 17th year of the cycle, they then increase by one unit the number of epacts, or that, illogically in relation to the Easter date, but logical in relation to the cycle, they place the jump of the moon and the epactal increase in the first year of the following cycle. In the latter case, it is clear that no attempt was made to explain or understand(3).

(r) Byz., 5, 269-280. The calculation also leads for the 18th year to the date of March 26 instead of the 25th; in passages previous, it marked 25 March with this precision: impTiou &RA zç', or Év '7"?. You) 1TÇi, that is, 25 finishing and 26 starting. Compare Byz., 4, 215 and 5, 266 with 5, 278-279.

(2) F. BUCLEGGGER, Wiener Chronologie von 1273, *BNJ*, 10, 1934, 1-54, spec. 30. See above p. 55, col. XI.

(3) A list of Byzantine computing treatises can be found in O. SCHISSEL/MARIA ELLEND, Berechnung des Sonnen-, Mond- und Schaltjahrszirkels in der griechisch-christlichen Chronologie, *BZ*, 42, I, 1942, 150-157, see pp. 150-152.

THE FORMATION OF THE BYZANTINE ERA

The Cycles of Constantinople Y.. Y.'7 in Oro .v and Alexandria which served as the basis of the protobyzantine and Alexandrian eras were officially introduced by imperial interventions whose date is known and that is why it has been possible to mark with enough precision the time when these eras appear. The Byzantine cycle murez 91'xıcv did not enjoy such an advantage: so the Byzantine era based on it has its origins shrouded in a certain darkness. This era is undoubtedly due to the private initiative of computists who resolutely abandoned the Constantinople cycle xa-rec Ucct.v for the *XCX,Z,C> cycle*. cpli)o'cv; we see it already appearing at the end of the reign of Heraclius, under whom the cycle of Aeas is still used. It was only gradually that the Byzantine era managed to impose itself and oust its competitors, and it is impossible to specify from what date it became a common or official use and whether an imperial act was taken for this purpose.

We will see in this chapter how the Byzantine era was born and how it was formed.

A whole chain of historical circumstances: official action of Theodosius I, long practice that followed, conference of Aeas, imperial decree provoked by Iron, a virtually confessional aspect of the Paschal computus after the resistance of the Armenians to this edict, explains why and how was done the insertion in the lunar cycle of Constantinople of the Paschal dates specific to the cycle of Alexandria, to the point of making impossible and even unthinkable any retrograde step.

But the Alexandrian system also had two other elements that formed or appeared to form cohesion with the cycle itself. It was, one, the Christian erasuspended from the year 5500; the other, serving as a support for this era, the parallelism of the days of the week between the genealogical events and the great evangelical facts. They certainly had no impact in practical life, but their connection to **intangible** Easter dates, their symbolism and the adhesion of the ecclesiastical and monastic world gave them a kind of consecration. This mystical chronology, however, had a very serious flaw: it offered too wide a gap with the **real** chronology of Christ. One day or another we would notice this and a reaction would be attempted. The Aeas conference, in bringing attention back to the Byzantine cycle, could not fail to draw him also to the world chronology that had been built on him. That these questions preoccupy the computists of the time, we see it by what Ananias says about Iron's intervention. Among the reproaches he addresses to him, there is indeed that of counting 5 500 years of the world before the coming of Christ. Certainly, as we have indicated, Iron's action tended to preserve the Long Prepondency of alexandrian chronology. Somewhat shaken by the Aeas conference, it would soon be directly threatened. It was very likely around this time, shortly after the success of Iron, that the main editor of the *Chronicon Paschale* **had to place himself**. We have already talked at length about this book. We return to it here because the reaction he translates enters into the preparation of the Byzantine era.

There can be no doubt that its author, at the same time as he sought to revive the world era based on the lunar cycle of Constantinople, did not have in view jointly a readjustment of the chronology of Christ. A coherent construction was to be set up to replace that of the Alexandrians. The problem was twofold. He had, on the one hand, to mark for the new dates that he would give to the evangelical events mystical parallels linking them to the days of the Genesiac week, if these parallels were those of the Alexandrians, or that it was necessary, the incidence of the day of the week not being the same, to create new ones. And, on the other hand, it was necessary, as an essential requirement, to meet for the Passion of Christ a date that swells at the usual necessary conditions, while ensuring, moreover, to the public life of Christ the length indicated by Eusebius. The Passion of Christ was marked in the year 31 Dionysian (5540 OF his era), on March 23, which was a *XIII lunae*, and that a special system transformed into *XIV lunae* (1). In the chronology of Christ that this date of the Passion entailed, the Chronist saw that certain events had the same day of the week as in the Alexandrian system, and then their symbols were naturally preserved to me. For the others where they saw a difference, he drew one from his own fund. Let us recall here that he was mistaken for the baptism of Christ, put by him on a Thursday instead of a Tuesday (2).

Perhaps, no doubt, the calculation process used to transform the *XIII lunae* 23 March into *XIV lunae* was criticized: it had to be reproached for compromising the regularity of the computing. Nevertheless, the *Chronicon Paschale* was a considerable effort to revive the world era, "natural", that of Constantinople, which had been ousted by the Alexandrian era. He was paving the way for the Byzantine era.

This appears as early as the second third of the fifth century. It is recognized in the allusion of Saint Maxime who reproaches the *ITE:VI:1:1-7t?,oi3vTE-4* for adding 16 years to the age of the world (3). But above all it is exposed *ex professo* in a treatise on computing by Georges, monk and priest, which shows its advantages (4). This author marks the date of composition of his pamphlet where he indicates when begins the -rpoz6q, synchronic, unfortunately not preserved, that he built. This date is 12nd year of the moon, 17th of the sun, 14th indiction, year of the world 6149 (5). We see here that the year of the world and the indiction go together, and we know that this agreement is characteristic of the Byzantine era compared to the Alexandrian and Protobyzantine eras. But that is not enough. It is still necessary, in order to respond to the Byzantine era that we know, that the world era indicated here is located on the historical scale at the appropriate place. However, this is assured to us by another place in the Treaty, where, indicating when the lunar cycle began in neck, it marks various synchronisms. I am content to note here the one concerning the era of Diocletian. Namely: the Byzantine year 6138 = year of Diocletian 346 (6). This corresponds to the Dionysian Christian year 630. The difference with the world year, 6138 = 630, remains 5508, is precisely the Byzantine era that will later be of common use in the Byzantine Empire.

POSITION OF THE PROBLEM

Having thus marked the date of appearance of the Byzantine era, it is a question of showing how it was formed. It is customary to explain the origin of this era by reference to the Alexandrian era. And here's how. The goal sought by its founders, and we refer here to the *77.Z. ·NπOC·7.0;3v r.sq* (thus Péttau,

(5) See above.

(2) *Chronicon Paschale*, 394-395.

(3) *PG*, 19, 5229 B.

(4) Fr. DEEKAMP, *Der Mönch und Presbyter Georgios*, *BZ*, 9, 5900, 14-51; text of the treatise on computing, 24-33. 1s) *Ibid.*, 33.

(6) *Ibid.*, 27.

Serruys (1)), was to obtain an era of the world that walked with all cycles at once, lunar and solar cycles, bissextile, indiction. All that was needed in the Alexandrian era to meet this ideal was to be in agreement with the indiction, which was a year ahead of it. This defect was corrected by adding 16 years to the era, which brought it into line with the indiction. The lunar and solar cycles necessarily aligned, and the number of 16, multiple of 4, ensured the agreement with the bissextile: the Byzantine era was born. This explanation is based on the testimony of Saint Maximus recalled above, reproaching the 77E:v rano i5 v r.c... q, to add 16 years to the world. But St. Maximus declares here a fact without indicating its origin. The discrepancy he denounces is a grievance that he adds to others, but does not enter into the mechanism of the system and cannot be deduced from it. It is associated with it, but rather as a daring presupposition. The testimony of St. Maximus therefore leaves the whole question.

Certainly the explanation by the addition of 16 years seems, at first glance, very satisfactory, very ingenious and even seductive, and I understand very well that we stopped there. On examination, however, it is clear that it does not go to the heart of the problem, that it ignores the essential data and that it is, moreover, only a rather simplistic and consequently very inaccurate view of things.

And indeed, an era of the world, at least from the IV century, if not before, is essentially linked to a lunar cycle and is measured by it, it depends on him, and not on him on her. It cannot be moved without first moving the cycle that sustains it. So if we want to have a new era, we have to make a new cycle. But the creation of a unary cycle cannot be an arbitrary thing. The cycle must have a foundation, either taken from or leaning on nature, or taken from a public institution whose fixity is imposed on computists. This last case is that of the *deceemnovennal* cycle alexandrin which, based on the coincidence of a *neomenia* with the 1st *thôth*, the first day of the Egyptian calendar year, gave birth to the Alexandrian era.

Thus the problem of the formation or change of an era is above all a problem of lunar cycle and more precisely of a foundation for such a cycle. The addition or subtraction of years, while it may be a first intention, cannot be a first operation. It can only be conceived as a result.

We have talked about an era chain. In reality, it is inappropriate language. Each era being an absolute in relation to another, as soon as it is based on a cycle of its own, with its own foundation, it is a question of substitution and it is substitution that strictly must be said.

Coming to the Byzantine era, it is not possible, if we compare it to the Alexandrian era, to conceive of it otherwise. It must necessarily have its own cycle, which is its measure, and can only have the explanation of its origin in connection with this cycle. It is therefore necessary either for this cycle to be created at the same time as it is, and for that it must find a foundation, or that it exists previously. However, at the time when the Byzantine era appeared, that is to say under the reign of Heraclius, the **lunar cycle that we see as that of the Byzantine era did not need to be created**: it existed for a long time. It was that of the reform of 353. It was recognized as a true natural cycle and, as such, had been reproduced by Denys the Petit. He had even given birth to an era of the world, beginning in the precyclical year, and which is the one we have called *protobyzantine*. This era did not work with the lunar cycle in question, only because **a course specific to the moon was not conceived** until the second year of creation. To make up for this defect, to have a lunar cycle walking with the year of the world, we had established a cycle of the moon. 77E:v rano i5 v r.c... q, which was also accompanied by a cycle of the sun xy. T.A Uar.v, so that the division of the year of the world by 19 and by 28 gave in the rest the current year of these two cycles. But

(1) PETAU, *De Graecorum aeris ac computis dissertatio*, e. XV : PG, 19, 1457-1458, D. SERRUYS, *De quelques ères usitées chez les chroniqueurs byzantins*, *Revue de philologie*, 31, avril-juillet 1907, 179-184.

this protobyzantine era did not work with the bissextle, nor with the indiction, both of a conventional institution. On the other hand, sticking to the *xoc-ra cpli)crtv*, all the cycles agreed with each other, differing by one year with the protobyzantine era. It was enough to lower it by one unit to have an era of the world that was perfectly granted to them.

Before the supporters of the Alexandrian era, who extolled the advantages of this era, where the year of the world walked with all cycles except with the indiction whose gap was minimal, since it exceeded it by only one unit, the temptation was great, especially after the embarrassed attempt of the *Chronicon Paschale*, to entrench in the protobyzantine era, put back into operation by him, this year of surplus that it had on all cycles.

Two methods could be devised to effect this entrenchment. The first consists, while keeping as the true beginning of the world that of the protobyzantine era, to make the numeration of the years leave, for the reason of convenience that we have said, only from the following September, the beginning of the indictional year: it would be an era that could be said *xoc-*, in *Uatv*, by position or convention, convention acceptable because the indictional year covers more than half of the year of the world beginning on March 21. The second consists of a real and complete shift of the first year which, being aligned with the *XOCTC* cycles, *cAo-tv* lunar and solar, thus transforming the *ZOCT* era. *GC cAcrtv* protobyzantine in one autre era, *X.C/ 21*. (*po-tv* also, which is the Byzantine era. This one thus begins and is counted as the one it supplants, at the spring equinox, on March 21st. Which one came of these two processes?

It seems at first glance that this must have been the first, so simple and all obviated. And all the more so because it corresponds precisely to the way in which Psellos represents the Byzantine era in relation to the creation of the world (1). Admittedly, this author is far from considering our problem. The question is for him to explain why the lunar cycle has its first *EASTER XIV lunae* on April 2. For reasons of convenience and tradition, he feels obliged to maintain the creation of the stars at the equinox and the appearance of the moon on its fifteenth day. This can only be achieved by establishing a pre-cyclical year. In this year, the *EASTER XIV lunae* was on April 13, the previous *XIV lunae*, the closest to the equinox, is on March 14, Wednesday. It is the day of the creation of the stars to light the next day, the sun in its equinox (which Psellos puts on March 15), and the moon in its full (*XV lunae*).

Whatever the dates themselves, we are faced with a conception that professes that the true beginning of the world is at the equinox of March and yet makes the era begin at the following September 1. It is certainly tempting to believe that this is the conception that proceeds from the passage from the protobyzantine era beginning on March 21 to the Byzantine era beginning on the following September. We must be careful here not to be too quick to apply it. Psellos lived in the xie century, when the Byzantine era was in age-old. He certainly did not think of showing the origin of it. The whole question for him was to explain why the Easter date of April 2 was the head of the cycle. The solution it provides was imposed by the problem and the circumstances of the problem, by which I mean the traditional lessons on creation. To infer that the same conception presided over the birth of the Byzantine era would clearly go beyond the premises. It seems difficult to us that in the vile century, when the Byzantine era appeared, such a conception could have already been formed. An era of the world then seemed essentially linked for its beginning with the time of the year in which the world was created. This element was part of the very constitution of the era. This is what is found wherever it is possible to carry out a check, that is to say in Africanus, Annianos (these two thanks to George the Syncelle), in the *Chronicon Paschale*, in George the Syncelle. Of the latter, it is appropriate to recall his statements expresses at the beginning of his *Chronography*: "In this Chronicle, which every reader assumes as

(i) Gertrude REDL, La chronologie appliquée de Michel Psellos, *Byz.*, 4 (1927-1928), 216-218.

beginning of the year on the first day of the first month, Nisan among the Hebrews, and not the 1^{er} thôth according to the Egyptians, or the 1^{er} January according to the Romans, or another of some nation having another beginning (1). In these lines, where the Syncelle indicates various beginnings of the year that could come to the reader's thought, it is remarkable: that does not appear the 1^{er} Septembre, beginning of the indiction: it does not come into play, unless perhaps the Syncelle has wrapped it in the general formula: "or another of some nation having another beginning". And even in this case, it would be only one of the possible dates which he assumes among readers, from which it can be inferred that the use of the indictional year was neither common nor common in chronography. This was the case at the beginning of the ninth century, when George the Syncelle was writing. A fortlight in the 1^{er} vile, where appears the Byzantine era whose birth it is a question of explaining. And that is why, since the indictional year is out of the question, there can be no question of calling, for such an explanation, on the simple conventional accommodation that we have been talking about, which consists of postponing the beginning of the world year from March to the following September.

ACTUAL ONE-YEAR LAG

What had to be envisaged, and what was imposed on the mind, was a real transformation in the lag of a full year involving the maintenance of the beginning of the year at the vernal equinox. The protobyzantine era started from the precyclical year of creation, the first of the lunar cycle x.ourdc aActv being the second of creation. What was needed to achieve the alignment of the era with the cycle was to remove this precyclic year and the zoc-rix cycle 0écnv invented for it; it was, from the first year of the cycle xoc-7 to pl')at.v, second of the world, make the first year of the world. It was still necessary that the operation was possible. For it to be so, two conditions were required. One concerned the cycle: it was necessary not to disturb the order of its epacts and therefore to give reason for its figure of 11 to the first year of the cycle which became the first in the world. The other concerned the new era to be created: it had to include the concordances suitable for the creation of the moon: age of the moon and genesiac day, that is to say: full moon on Wednesday. However, these conditions are jointly realized in the Byzantine era, as it stands, by attributing it to others, the priest and monk George, in his treatise on computing. The only direct aim of this is to overcome the annual 11 epacts; for this reason, it goes back to creation. Here is his text:

"It is good to indicate the cause why, according to some, the moon has an advance of eleven epacts. When, on the fourth day, they are, of the birth of the world, were created with the other stars and the sun and the moon, and the stars began their course on the divine order in the firmament of the sky, then the sun, taking the beginning of its own course, traveled for its first day, which was, as has been said, the fourth (of creation); the moon, which, at the time it was created, should not appear incomplete, not leave, illuminating for the first time, part of the night in the obscurity, immediately received the place proper to the day of the full moon and took from there the beginning of its course — it must be known that it is in its fifteenth day when it occupies this place; it was therefore indeed the fourth day of the week (genealogy), mais for her, she walked her fifteenth day. Hence, therefore, each year, it advances on the sun by eleven days, plus a small part, that is to say the nineteenth of a day (2). »

In other words, when both the sun and the moon were created on the fourth genesiac day (Wednesday), the sun was on the fourth day of its course, because the course of the sun is measured on the

(1) GEORGES LE SYNCELLE, ed. 130, 10.

(2) 13Z, 9, 1900, 28.

week from Sunday, and the moon being full, was on the fifteenth day of his; it was therefore eleven days ahead or epact on the course of the sun ($15 - 4 = \text{ii}$).

The explanation of the number *ii* of the epacts therefore essentially includes that the one is created on Wednesday, on its xvth day. But it can obviously only have value *ii*, in effect, these two concordances for the creation of the moon are realized in George's own era, the Byzantine era. They are. In the first year of this era, in fact, the *EASTER XIV lunae*, which is **April 2**, falls on a Tuesday, and the full moon, *XV lunae*, is on Wednesday, the day of the creation of the star. This concordance, which is not indicated, but obviously obtained by our author, we verify it by means of the cycle of 532 years, which brings back the recurrence of concordances from the first year of the Byzantine era 5508 BC to the year 345 of the Dionysian era. Thus, the conditions necessary for the *deci* a complete year of the protobyzantine era: maintenance of the order of the epacts and concordance with the *genesiac* dates, are realized here. It follows that in the new era, the Byzantine era, the first day of creation is Sunday, March 31, 5,508 BC, instead of March 19, 5509 in the Protobyzantine era.

We can see how important the text we have quoted is, through everything it expresses and all that it implies. As the pamphlet of George, from which it is taken, is the oldest written, with that of Saint Maximus, which attests to the existence of the Byzantine era and that this author is a computist who treats *it ex professo*, endeavouring to show the advantages, his testimony must be considered capital. Thanks to him, we make ourselves aware of how the Byzantine era was able to be formed by disengagement from the protobyzantine era, and how the transition from one to the other took place. It is, in summary, by transforming the first year of the *zattac* cycle, v, the second year of the world, into the first year of the world, supplanting and suppressing the first year of the protobyzantine era. Thus, and not otherwise, the formation and appearance of this era can be explained. The resulting difference of 16 years with the Alexandrian era is only a consequence. The lead was 17 years in the protobyzantine era; she is now 16 years old.

ADAPTATION FROM A CHRISTIAN ERA TO THE WORLD ERA

We have just witnessed the birth of the Byzantine world era, based on the Byzantine lunar cycle resulting from the reform of 353. On this world era it is now a question of establishing a Christian era, something important since the way of dating events after Christ depends on it. Here appear two major currents, one of which has various ramifications.

The first adopted the Byzantine era, but nevertheless remained faithful to the entire chronological and symbolic system of the Alexandrians. It is found in the computist George, monk and priest, where it indicates the beginning of the current lunar cycle by means of various synchronisms. I remember the one that interests us here: year of incarnation 622 and year of the world 6138. These dates are located in the year 346 of Diocletian, 3rd indiction, that is to say 629, 630 AD. We are here, with the year 622, in the presence of a year of the Christian Alexandrian era of Annianos, corresponding both to the year of the world era of Annianos 6122 and, with a gap of 16 years, to the year 6138 of the Byzantine world era (1). This brings the birth of Christ to the year 5517 of this era. We therefore see here the Byzantine era adopted without it being touched to the actual chronology of the Alexandrian era, which is implemented; it is a Byzantine era whose Christian era is 5517 (5501 of the Alexandrian era, 9 Dionysian).

From this transposition of the Christian Alexandrian era into the Byzantine world era resulted, through a false application of the system, a world era of 5,516 years, which we see employed by

(by I, Z, 27.

some columnists. These (or at least their unknown leader), who must not have been strong computists, probably knew that the difference of 16 years that there was between the two Alexandrian and by zantine eras came from the difference of the lunar cycles, but they believed, by a rather simplistic view, that the Alexandrian cycle on which the Alexandrian era was based, started from the year 5501 of this era, date of the birth of Christ, while its starting point is the year 5492. So they added 16 years to 5500. Hence the era of 5516. It was 8 years ahead of the Byzantine era (5508) and 24 years ahead of the Alexandrian era ($5516 - 5492 = 24$).

There are several chronological notations according to this system in Epitome B. They led to the end of Theophilus' reign. D. Serruys, who made them known to us, deduces from the difference between the dates of the reigns according to our era and the dates of Epitome B that it is an era of 5515 (1). In fact, the difference is, out of 17 cases, 9 times 5 515 years old, and 6 times 5 516 years old; for one date, the last figures are missing, but certainly one can infer, because of the group in which it is located, that, for her, the difference is 5 516. Including the latter case, the group where the difference is 5,516 includes the last six kingdoms plus two which are within the previous group where the difference is 5,515. It is reasonable to judge the system by the reigns whose date is the godknown to the editor, namely the last ones. We must therefore say that the era that the latter had in sight did indeed include the difference of 5,516 with ours. The calculation of 5,515 may come from either a chronological inaccuracy in the writer or from the imprecision of our knowledge for the limits of certain kingdoms. Serruys goes to great great trouble to identify what he believes to be traditions. There is nothing at the origin of the system other than the false starting point that we have talked about: only he can make reason for it. Such an era cannot be matched by any cycle. The agreement with the Byzantine cycle, the only one that could be expected, would imply a constant chronological error. If we can admit it for events of ancient times, elle is impossible about the last supposed reigns.

The second current, in the use of the Byzantine era, is to abandon the Chronology and Alexandrian symbolism in order to conform to the requirements of historical truth. It appears from abroad, it seems, in those whom Saint Maximus calls the *7CEVTOCTCXeiVI:F4 ZY.f. ?.. g(X7C?,0'3'17:24*. This designation is taken in their way of counting, for each year of the cycle, the epacts and the *XIV lunae* pascal. It is known that the usual method is to multiply the current year of the cycle by II, number of annual epacts, and to divide the quotient by 30: the rest is the figure of the epacts, by which one arrives at the *XIV lunae* after the vernal equinox. However, care must be taken to observe the jump of the moon at the end of the 19th year (normal place) and consequently to increase the epacts of the following year, the first year, by one unit. We have already seen the moon jump moved from grades 19 to 16, and this move is justified. It is precisely the same question that is at stake here and it is not possible to find another reason for computing our quintuplants. The substance of the system consists in using, by a calculation different from that of the Chronist and that which the Armenians were later to attribute to Iron, the division of the day into sixtieths (2).

First of all, all lunar months are equalized to 30 days by adding to each day one sixtieth of a day --- addition that makes it possible to realize every two months the day that fills the 60 low month.

(x) D. SERRUYS, *Recherches sur l'Épître*, BZ, 16, 1907, 1-51 : voir pp. 43-46.

(2) The system is exposed by SAINT *Brevis etarratio christiani Paschatis*, I, li-x 2, 16; II (integer): *P G*, 19, 1228-1229, 1233, 1252-1264. We use the presentation of E. SCHWARTZ, *Ostertaletm*, 81-85. See also A. MENTZ, *Beitreibung*, 58-59. — In the following, when we talk about the Iron system, we must always hear: as presented by the Armenian authors.

Then, in order to obtain the day equivalent to that which is removed in the jump of the moon every 19 years, each year of the cycle is allocated 60 of day.

The problem to be solved for quintuplants by means of these processes is to determine what is the true age of the moon on the dates received from the *Easter XIV lunae*. These dates, as we have seen, are the Alexandrian dates that have become official and traditional.

Here's how they operate. Instead of multiplying the figure of the current year of the cycle (remember that this is the Byzantine cycle of 353 za ;-& $y1^1$)(3.tv) by i i , they multiply it separately by 5 and by 6. The multiplication by 5 therefore gives the same product, namely the total of days and the total of sixtieths of days accumulated from the beginning of the cycle to this year (i). To this total of antiemes must be added another total of sixtieths, that which is obtained by adding 60 of day to each day from the Ter January, starting point of the epacts, until the date received from the *XIV lunae* of this year. This double total of sixtieths added and divided by 60 provides in the quotient a surplus of days. We then multiply the current year by 6, to provide a last number of days.

Together we bring together these various sums of days to know (x year refers here to the current year):

1st: days from Ter January to the date received from *XIV Lunae*;

: x years $\times 5$;

3rd: $x \text{ years} \times 5$ 60 , ' $x \text{ days (No. 1)} \times \frac{1}{60}$ ';

4th: $x \text{ years} \times 6$.

The sum of these four operations is divided by 30; the rest means the actual age of the *XIV lunae* pascal received (the Alexandrian).

Example: either the year 14 of the cycle (Byzantine $zy.T.Cf. pltio-cv$) where the Paschal date of the *XIV lunae* is to April 9:

° Days from Ter January to April 9	99 days
2° Year 14: 14×5	70 days
	70 , $\frac{169}{60}$
3° Year 14: 14×60 60) 99×60 $\frac{169}{60}$	2 days (plus an off-account fraction)
4° Year 14: 14×6	84 days
TOTAL	= 255 <u>days</u>

255: 30 — remainder 15. April 9 is at the *XV lunae*.

By such an operation, it happens, as Saint Maximus points out, that the *RECEIVED PASCHAL XIV lunae* is, for these computists, most of the time brought to the *XV lunae*, as in the example given, sometimes to the *XVI*, and this without counting the difference of one more day that the bissextile brings in the leap years.'

In the above calculation, leaving aside the intervention of the bissextile, the years of the cycle in which the Paschal seat remains the *XIV lunae* are years I, 2, 3, 4 and 18. Those where the Paschal seat goes to the *XV lunae* are the years 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17 and 19. The Paschal seat is worn in the *XVI lunae*

(1) It is probably because of this that they duplicate the number ri , because we do not see any other variation.

in the year 16. As for year 12, the calculation itself does not change anything at the Easter headquarters, but here comes the effect of the allocation of the $\frac{5}{60}$ each year. At the end of the first year, the accumulation

gives $11 \times \frac{5}{60} = \frac{55}{60}$. These sixtieths are blocked with the last 5 at the beginning of year 12, at

the neomenia of December 19 (*XIV lunae* to January 1), so that this day is both the last of year 11 and the first of year 12. Thus is carried out the jump of the moon, bringing the addition of an epact, which makes back the Easter seat of the year 12 to the *XV lunae*.

We see that of the 19 years of the cycle, only 5 keep the Paschal seat in the *XIV lunae*, 12 have it in the *XV*, and one, in the year 16, has it in the *XVI*. By these calculations, the quintuplants did not intend to change the traditional dates of the celebration of Easter: they remained on the theoretical level. But Saint Maximus notes that by their very appreciation, they quite often put themselves in opposition with the ecclesiastical rules. When the Easter seat falls on a Monday or later day of the week, its assignment to the *XV lunae* leaves Easter Sunday within the required limits. But when it falls on a Sunday, its assignment to the *XV lunae* met, in the logic of the system (the *XIV lunae* being then the day before, Saturday), the Easter celebration to that same Sunday, which is the day of the Jewish Passover, something absolutely forbidden. No doubt, they refrain from it and celebrate like all Christians on the following Sunday, but this one is then, still in their system, the *XXII lunae*, which exceeds the permitted limit (*XXI lunae*).

These disadvantages are, a fortiori all the more reason, those of the year 16 of the cycle, when the *Alexandrian XIV lunae* falls on a Sunday or a Monday. If it is a Sunday, the change from *XIV lunae* to *XVI* puts the celebration of the following Sunday to a *XXIII lunae*. If it is a Monday, the change from *XIV lunae* to *XVI* has the unheard-of result of carrying Easter Sunday logically even before the Jewish Pâque and the actual celebration to a *XXII lunae*. — See the cycle of the 7ZE.V7C1.717X0i5VTEÇ in column IX of the comparative table, pp. 54 and 55.

Saint Maximus noted in a ῥποϋ6ç the cases where the celebration of the Passover, in the system of quintuplants, takes place beyond the permitted limit, that is to say beyond the *XXI lunae*. When the celebration is done in *XXII lunae* by the only play of the bissextile to the leap years, it marks it with a point; when

it is by the accumulation of $\frac{5}{60}$ after a certain number of years, it marks it by two points;

when the celebration takes place at *XXIII lunae*, he scores it by three points (the case arises only once in the cycle of 532 years). We can, we must ask ourselves, what our computists wanted to go with such a system. "Games of elegant mathematicians", says Serruys (1). This is not an answer, because these games, if there are games, only make sense if they have a rule, and only have a rule if they have a purpose. And this goal is not to get the Byzantine era, because it does not stand out and cannot come out of their calculations. We have seen, in George's treatise, how it was born.

For Schwartz, the intention of the quintuplants was to agree with western computists for whom the limits of the celebration of the Passover were from the *XVI* to the *XXII lunae* (2). Perhaps one could admit it if the goal were achieved in a general way, but all the cases where the *XIV lunae* remaining the *XIV* falls on a Saturday, unless changing the actual celebration, escape this result, and the case of the *XIV lunae* transformed into *XVI* and falling on a Sunday exceeds it by bringing the celebration to a *XXIII lunae*, which is unheard of, even in the West. Moreover, the intervention of the bissextile multiplied the cases where the Easter celebration takes place on *XXIII lunae*, and it even pushes it, once every cycle

(1) D. SERRUYS, De quelques ères, *Rev. de philol.*, 31, avril-juin 1907, p. 182.

(2) E. SCHWARTZ, *OSÉCratie*, 88.

from 532 years of age, until *XXIV* (1). Moreover, at the time of the quintuplants, this accommodation to the Western system no longer had any reason to be, because Rome had already accepted, under the influence of Dionysius the Lesser, the Alexandrian limits of the Easter festival, and it is also **biin doubt that thequintuplants** had had concern or even knowledge of the computus observed outside the Empire, beyond the Alps.

It does not seem, therefore, that this explanation by Schwartz is sufficient to detect the intention of the 7ZEV77.-7. no;5v-re4. The answer to the problem is, in our view, to be found in their use of the sixtieths. Wherever, in the Pascal computus, fractions of a day are used, it is in connection with the jump of the moon, in order to mark its place or to justify it. Thus among Westerners, where, in the cycle of

84 years, we use the $\frac{1}{12}$ of the day, because the jump of the moon takes place there every twelve years. Thus at

Iron, among byzantine computists, such as karnthaler's anonymous B VIII, and also in the *Chronicon* (for a particular Easter date), all of whom use the sixtieths of a day. But, if in westerners the jumps of the moon within the cycle are essential to him and command the Easter date (2), it is not the same in Iron and the other Byzantine computists aforesaid. The moon jump at the end of the 16th year, instead of the last (19th), is not natural in their cycle, but intruder. As we have seen, it is a consequence of the Paschal dates received from another cycle, the Alexandrian cycle, and which we have sought to justify. It is for this purpose that the distribution of *lepta* is organized through the years of the cycle: it must bring the *saltus lunae* to the year of the cycle that we desire. It could not be otherwise with quintuplants. In them, too, the distribution of the sixtieths appears to be dictated by the result to be obtained. We know that the Easter dates that Iron wanted were April 16 and 5, with March 25 already acquired. What date(s) were quintuplants interested in?

This can only be done by conjecture. Let us first note that the Passover of the 12nd year where the rise of the *XIV lunae* is made offers no special interest. Transporting it from I April to March 31 does not respond to anything in symbolism or tradition. Operation here is only the logical application of the distributive system. Nor can there be any question of a computing date to be established in view of a divergence to be filled between the Alexandrian and Byzantine cycles: there was no longer any difference since the reforms of Aeas and Iron which had resulted in the Alexandrian Easter dates being brought into the Byzantine cycle. It can therefore only be a historic date. However, there is only one that can be at stake: it is the one for which the *Chronicon Paschale* has already intervened. We remember that the Chronist, led by his chronological system to place the Passion of Christ in the year 554⁰ of his era (= 31 Dionysian), 11th year = TA Urnv of his lunar cycle, and hindered by the incidence in this year of the *XIV lunae* to Saturday, transformed, by a special calculation, this *XIV* into *XV*, and Friday XIII *lunae* into *XIV*, in order to place the Passion there on the very day of the Jewish Passover. His calculation had in mind only this historical case; it is not applied to the Passover of the year 5537, where it would have had the effect of transporting it from the 27th to the 26th; the Chronist had no need of it: it is on the 27th that he maintains it (3).

For the quintuplants it is in the year 10 of their cycle that is the *XIV Easter lunae* of March 24. Suppose that these computists had the same intention as the author of the *Chronicon Paschale*, and see if and how it is realized in their system. So let's apply here the various operations of their calculation.

(1) E. SCHWARTZ set the table for all the years in which the Passover according to the system of quintuplants is celebrated after the *XXI lunae*, i.e. xxii, xxiii and xxiv, in the cycle of 532 years (Alexandrian), *ibid.*, 85-87.

(2) E. SCHWARTZ, *Ostertateln*, 4^e49.

(3) *Chronicon Paschale*, 395.

1)	Number of days from Ter January to 24 March.....	83
0)	— per year : Io x 5	50
1)	— by the sixtieths $\frac{834-}{60} \quad \frac{133}{60}$	2
2)	— by year : Io γ 6	60
TOTAL		195

Age of the moon: 195 divided by 30, remains 15.

So on March 24, in the year Io of the cycle, is the *XV lunae*. And this is how Saint Maximus marks him in his painting. But that is not enough. It is still necessary that the year of the Passion of Christ envisaged here is not a leap year, which would put march 24th in the *XVI lunae* and Friday in the *XV lunae*, and would thus make miss the goal. However, precisely this year 5539 of the Byzantine era (5540 pro-Tobyzantine = 31 Dionysian) is not a leap year. It therefore follows that in the system of quintuplants the Passion of Christ of the aforementioned year takes place on *XIV lunae* Friday, March 23. And this, just like with the Chronist, according to the very game of the elaborate system. But while the Chronist applies its system only on the date which interests it, the quintuplant applies its own to all, so that the interesting date is clear from the application of the common rules (1).

Based on all this, we believe it is likely that the intention we assumed in these computists was indeed theirs. They wanted to continue the attempt of the *Chronicon*, namely, to restore the true chronology of Christ sacrificed by the Alexandrians, and to do so in the newly obtained Byzantine era, which they could advocate for the veritable, since based on the natural cycle of the moon, that of Alexandria having only an artificial character. But, in order to succeed, they absolutely had to break the obstacles of Alexandrian symbolism, even if it meant replacing it with another one according to the rencontre. The most delicate point was the date of the Passion of Christ, a positive element that must be taken into account. The author of the *Chronicon Paschale* had honored the ancient tradition, which placed the death of Christ in the *XIV lunae*. It must be said that on this point his action was effective and that his thesis was finally imposed. Indeed, one cannot explain otherwise this fact already mentioned above that George the Syncelle who, however, follows the Alexandrian era where the Passion of Christ is in 5534 (42 Dionysian), deemed it necessary to comply with it (2). He achieves this by a shift in the opposite direction to that of the Chronist, namely by transforming the *XV lunae* which fell on Friday, March 23 into *XIV lunae*. How did he deal with his cycle which puts the *XIV lunae* on March 22nd? He does not say so, and it does not matter. Georges le Syncelle is not alone in doing this operation. We also note it, let us remember, in a text attributed here to Eusebius, there to Severus, where the era employed being alexandrine, the Passion is put in the *XIV lunae*.

These examples speak for themselves. If this was the revival of favor of the ancient tradition on the lunar date of the death of Christ, due to the author of the *Chronicon Paschale*, the supporters of the Byzantine era

(r) A. MENTZ, *op. cit.*, 60-63, thinks that the process of quintuplants which makes it possible to transform into *XV lunae* the *XIV lititac* of March 24 (year of the death of Christ, in the year 31 Dionysian) led the Byzantine computists to move the $\text{voti.tx}\acute{\omicron}\nu \text{ } \gamma\text{rdcaza}$ from the *XIV* to the *XV lunae*. He gives several valid examples of this new way of dating the legal Passover, the Anonymous of the codex Parisinus 8J4 and the Pseudo-Argyre, but that of Cedrenus must be rejected: not only does he not say this, but he says that when the Lord suffered, he did not eat the Passover, but he himself suffered for us, and he adds: "The fact that he does not elevate the Passover to the ciana day, but that before this day which was that of the azymes and the preparation of the feast, he celebrated the mystical Passover is a proof that he gave to his disciples, not the victim and the azymes, but the bread and the cup", CEDRÉNUS, ed. Bonn, 307-308. This means that for Cedrenus the legal Passover is indeed the *XIV lunae*, not the *XV*. As for the transfer of $\text{vop.w.}\acute{\omicron}\nu \text{ } \gamma\text{r}\acute{\epsilon}\text{cry.}$ / from the *XIV* to the *XV lunae*, I very much doubt that the quintuplants have anything to do with it. I would rather see it as an effect of the controversy over azymes.

(2) GEORGES LE SYNCELLE, ed. Bonn, 616.

who wanted, on the same historical basis as him, to straighten out the Christian chronology distorted in the Alexandrian system, had to take this into account and seek like him the way to transform the *XIV lunae* Paschal of the year 31 Dionysian, 10th of the cycle, 24 March, in *XV lunae*, so that the *XIV lunae* was to Friday, March 23. The process used by the Chronist could have served them well. Transposed into the Byzantine era, it ended with *two lepta* less, 65 instead of 67, to the same add result one more day to form the total necessary for the operation. But without a doubt this process had been

criticized and had to be discredited. In particular, the use of leap day shifts ('60' combined with the distribution of the 2 lepta par year of the cycle was nothappy. This element of leap was not to be taken into account, since it is already included in the comparative calculation of the prices of the sun and the moon in the enneadékaétéride, and the distribution of the 2 lepta per year (2. < 19 — 38) is manifestly insufficient to constitute the full day of the 60 lepta which must compensate for the day in addition to the course of the moon on the sun at the end of the cycle. It was therefore necessary to find something else, and as we see that the system of quintuplants, which used the Byzantine era, resulted in the same shift from the *XIV Lunae* to the aforementioned year, we believe that we can place these computists in the first rank of the supporters of this era who, abandoning the Christian chronology of the Alexandrians, or wanted to grant it a Christian chronology in accordance with historical accuracy (1).

If that was their business, what was the success?

Is it the calculation system? It contained too serious defects, which Saint Maximus denounced, to be able to impose himself. He had to succumb to the blows of his formidable opponent. However, half a resurrection can be found in *L'Anonyme* of 1079 published by A. Mentz (2). This computist has indeed a calculation closely related to that of quintuplants. However, he is careful not to place the *saltus lunae* in the 12nd year of the cycle and keeps it in the 17th (3).

Is it the Chrétient chronology? She must have felt that failure. It is a fact that, while the Alexandrian Christian chronology continues to assert itself with George the Syncelle and Nikephoros, and that its influence is exerted as much by the era of 5516, continued until the middle of the 11th century that by the strict application of the mysticism of 5500, in the tenth century, by the Ps. Symeon Magister and George the Monk continued who, as we will say later, make go together the years of the world with the Christian years, we do not yet see the use, in the Byzantine era, of a Christian chronology that is appropriate to it. We have to wait until the 11th century to come across information on this subject. We then find that it is not the same for tous authors. Psellos (4) tells us that according to some Christ had come in the year 5500, according to others in 5504. It is this last date that he makes his own, declaring that the difference of a few units does not deflect from the p. ucr-7; 1 p cov that encloses the number of X500. He endeavours to prove that those who adhere strictly to 5,500 cannot find a Passover where to link the death of Christ (5). For him, Christ was conceived on March 25, 5504, was born on December 25, 5505 (year indictionnelle), is

(r) 11 is true that Saint Maximus makes no reproach to the quintuplants touching the chronology of Christ, and SERRUYS, *De quelques ères*, 180, believed because of this that they had simply transposed into the Byzantine era, by a gap of 16 ans, the Alexandrian chronology. I do not think that conclusion can be drawn. ('indication of St. Maximus is very terse, and it may well be that he included in his reproach all that the quintuplants intended to relate to their way of counting the years of the world.

(2) A. MENTZ, *Beiträge*, 80, 82.

(3) *Ibid.*, 86.

(4) *BYz.*, 5, 1929, 241-243.

(5) His argument is against those who practice the Byzantine era, not against those who practice the Alexandrian era, who, in their world year 5534, have a legal Passover on March 22 (the 23rd, according to George the Syncelle) and put the Passion on March 23.

But for sure, Psellos and the other computists and chroniclers, who abandoned the strict Christian era of 5501, had to deal with it, since they could not establish another without having solved it. Naturally, they first thought of the year corresponding to the Dionysian 31, which was that of the *Chronicon* and which had been that of Africanus, Anatole and Eusebius. In this year, the *XIV lunae* was a Saturday, and Friday, the day required for the Passion, was a *XIII lunae*. We have seen the efforts of the Chronist to transform this *XIII lunae* into *XIV* and to convince that it was indeed the *XIV*, the day of the Jewish Passover, that Christ died. He had, on this last point, succeeded so well that George the Syncelle himself had thought he had to respect this coincidence, despite the contrary indication of his cycle, the Alexandrian cycle. How, faced with this problem, were the new Byzantine computists going to behave? Simply by removing it. They returned, knowingly or not, in the manner of Africanus, Anatole and Eusebius, leaving the Friday of the Passion to the *XIII lunae*. Cédrenus himself who, for the rest, follows the *Chronicon Paschale*, abandons it here (6). We can

(5) CEDRENUS, 331.

to believe that this date of *the XIV lunae* for the Passion of Christ was all the more willingly abandoned, and the Jewish Passover replaced on Saturday, that it emerged a powerful proof to be used in the quarrel of the Azymes with the Latins. If, indeed, the Jewish Passover was a Saturday, the Azymes were prescribed only from Friday evening, and Christ therefore celebrated the Last Supper with ordinary bread: fermented bread. And this is how the Byzantine polemicists argue. Such as Cedrenus himself (1), such as Michel Glycas (2), such Nicéphore Calliste (3), to mention only the chroniclers.

THE BEGINNING OF THE YEAR IN THE BYZANTINE ERA

One last point remains to be addressed: the beginning of the year in the Byzantine era. It is known that, in the byzantine chronological system definitively constituted, it coincides with the beginning of the indictional year, ^{on September 1st.} It is likely that this has not always been the case. We have seen above how the oldest witness, and at the same time theorist of the Byzantine era, the computist George, conceived and justified it. And how also the same author modeled his Christian chronology on that of the Alexandrians whose world years began in March. This double indication suggests that George and those who followed him must also have counted the world years from March onwards. They had to count them, not from the first day of creation, which was, according to George, 31 March, because this date marks nothing in the year, neither in the natural relationship, nor in the mystical relationship, but, either, like the Chronist, from 21 March, the day of the equinox, recognized as the natural beginning of the year, or, like the Alexandrians, from the 25th of the same month, out of reverence for the mysteries of the Incarnation and the Resurrection which, accomplished on that day, make it the first of the new creation, of the mystery of salvation.

It should be noted here that Psellos, for whom the years of the Byzantine era begin in September and who seems not to have known any other fashion or practiced another world era, links the era to creation other than the computist George, namely, as we have seen, by means of a precyclical year, well reduced, since it goes from March to the end of August, and not entering into the numeration of the years of the era (4). This difference in design is a mark that there is also a difference in the way in which the world year is delimited, and therefore that the computist Georges gave it a different way than Psellos, a beginning that can only be in March.

From this mode of dealing with the years of the Byzantine era that we consider to be the primitive, there are various clues or traces not negligible. Here are the ones we can present. First, Theophanes' equations between the dates of the Byzantine era and those of the Alexandrian era, which are only correct if on both sides the year begins in March (5). Ensuite a continuation of the painting of the epochs of the world stopping at the death of Michael III and which gives for this event the date of 6375 instead of 6376, note which has the value of contemporary testimony (6). This same date is found in the *Ekloge* of Wirth, applied to the accession of Basil I^{er} (7). Then the date of the Eclogue of Leo III, 9th indiction in March, year 6248, which can not be explained by any other means (8). I do not, however, want to give this last example for the insured, except as long as it is the use of all

(1) CEDRENUS, 308.

(2) MICHEL GLYCAS, ed. Bonn, 403-408; *PG*, 158, 413-416.

(3) CALLIST NIKEPHOROS, *PG*, 14S, 716.

(4) See above.

(5) V. GRUMEL, L'année du monde dans l'ère byzantine, *EO*, 34, 1935, 319-326; see 322.

(6) *Georgii monachi Chronicon*, ed. C. DE BOOR, II, 804.

(7) A. WIRTH, *Aus orientalischen Chroniken*, Frankfurt, 1894, p. 21.

(8) V. GRUMEL, La date de la promulgation de l'« Eclogue » de Léon III, *EO*, 34, 1935, 327-331.

at least one copyist who felt the need to add the world year to a document that was dated only by the month and the indiction (1).

The most characteristic example is that of the Synod of Tsar Boril: it is dated 6718 of the era of the world, indiction 14, 11 February, Friday of tyrophagy, year I of the moon, 15 of the sun. Leaving aside the years of the sun and moon that do not intervene in the problem, we see that all the other coordinates find their exact agreement, which excludes any possibility of error, not in 1210, but in 1211. But they can only be suitable for the year 6718, to which they are related if this year, begun in March 1210, ends in March 1211 (2).

We can corroborate what we say here about the beginning of the Byzantine era in March by the use of the Russian chroniclers, who, having received the world era of the Byzantines, do not, however, begin their year in September, but in February or March depending on the date of Lent, which suggests that the beginning of the world year which they saw among the Byzantines was 21 March, but that they themselves advanced it to put it in relation to the lunar calendar to which they were accustomed; they probably fixed it to the full moon preceding the equinox or in incidence with it (3).

As it is natural that originally computists and chronographers designed the Byzantine World Year in the same way as the earlier eras, with beginning in March, it is also natural that used by others, in hagiography or on epitaphs, and tends to identify with the indictional year. And it is by extending this practically vulgar use, rather than by an express calculation, that it seems necessary to explain that chronographers, in turn, and the drafters of public acts, have made the same identification, starting the year on the previous¹ September.

The oldest epigraphic text in which, *according to the statement*, the Byzantine era must be recognized is an inscription of the Parthenon, CIG No. 9352, which bears: *April 4, Friday, indiction 2, year 6212* (= 704). The n° 9350 with the date: *October 19, Sunday, indiction 7, year 6202* (4), also has the Byzantine era, and thus it is earlier (= 693), but we are only assured because it neighbors with it in the same environment and the same group of texts.

As for the manuscripts, it is only from the ninth century that we see them dated by the year of the world. The first surely discernible world era is the Byzantine era with the Leningrad Bibl. publ. 219, dated May 7, *indiction 13, year 6313* (= 835) (5). It is also by far the most common. Besides it, there are still examples of the protobyzantine era: Paris. 1085: *indiction 13, year 6509* (= 1000) (6); Paris. 223: *July, ind. 12, year 6553* (= 1044) (7); Vatic. 414: *6529, indiction 3* (= 1020) (8). The following examples are also given for the Alexandrian era: the Psalter Uspenskij = Leningrad Bibl. Publ. 216: *year 6370, indiction 11* = (878) (9) and the Laud. 75: *year 6485, ind. 6,993* (10), but could one not think of a Byzantine era beginning in March? The case

(s) The date 6247, a competing date, could mean that the copyist will have applied the Alexandrian era here, two units behind the indiction from September until 25 March, without noticing the anachronism produced by this operation: it places the document under Constantine V.

(2) M. G. PoPiwlr.Nico, *Sinodik carja Borila*, Sofia, 1928, p. 82. It is quite curious to see that the year of the solar cycle, instead of 26, which the Byzantine cycle requires, is marked 15, which is the figure of the Dionysian cycle.

(3) This is the conclusion that emerges from the study of N. V. STEPANOV, *Edinici Ude vremeni (do XIII l'Hm) po Lavrentievskoj j 1-j. Novgorodskoj létapisjam*, Moskva, 1909. See also the important study of VI. Moi7Ars, *Martovsko datirovanie* (The use of the Style of March, with summary in French) in *Istoricki Glasnik*, Beograd, 1951, 19-57.

(4) BOECK, *Corpus inscriptionum graecarum*, IV, 482. See also Archim. ANTONIN, *O drevnich christianskich nadpisijach y Athinach*, St-Pét. 1874, pp. 66 (No. 84) and 63 (No. 73).

(5) R. DEVREESSE, *Introduction à l'étude des manuscrits grecs*, Paris, 1954, p. 288.

(6) *Ibid.*, 294.

(7) *Ibid.*, 297.

(8) *Codices Vaticani graeci*, t. II, rec. R. I) EVR E ESSE, 122 - 123.

(9) R. DEVREESSE, *Introduction*, 288.

(10) *Ibid.*, 293.

of Vindob. Phil. 314: *July 28, Thursday, indiction 13, year 6432*, leads to an era of 5507 years, because it is the year 925 and not 924 that brings together the concordances (1). The same applies to Vat. stake. 44 *28 August, Monday, indiction...*, year 6405, where the year 898 is the year which brings together the concordances; it is therefore necessary to supplement: indiction i (2).

If we move on to the chroniclers, we note, on examination, that in their country the Byzantine era was imposed only rather late. In the ninth century, Theophanes the Chronograph, although a Byzantine, used the Alexandrian era. In the tenth century, Genesius was the only one who regularly used the Byzantine era with beginning in September. The Pseudo-Symeon Magister and George Continued (Part I) each have an era which is certainly not the Byzantine era, but is rather a shift of some years from the Alexandrian era, made to the judged, without taking absolutely any account of the requirements of the lunar cycle; both annex a Christian era in the Alexandrian way, that is to say where the units walk with the world year (3). Georges le Moine Continued (2nd part) (4) contains only three dates: 1) *°janvier, indiction 8, 6428*; (2) *6453, ind. 3*; 3) *December 20, indiction 3, 6454*. The first might be suitable for the protobyzantine era. The second and third neighbor at 15 lines of interval, having even indiction (5). It is not possible to reconcile them, and consequently to determine which era is designated here.

As for the Continuator of Theophanes, he could not think of using the Alexandrian era, which was no longer favored by the public. In charge of continuing chronography, he felt unable to draw up synchronic tables in the manner of his learned predecessor. This is not what was desired of him, but an account of events that was advantageous to both official orthodoxy and the Macedonian dynasty. In this long work, there are only 7 dates according to the year of the world, of which only 4 are related to the indiction and the month: 1) *September 6376, ind. 1* (Bonn, 210); 2) *6 January 6428, ind. 8* (Bonn, 398); 3) *20 December 6454, ind. 3* (Bonn, 436); 4) *November 6469, ind. 6* (Bonn, 468/9) (6). As we can see, the relationship of the year of the world with the indiction is not uniform: the last two dates do not allow themselves to be resolved and we can assume for them errors of transmission; the months of the first two are mois where the indiction is common to the Proto-Byzantine era and the Byzantine era with beginning in September. Under these conditions, it is impossible to determine the era of this chronicler.

The case of Leo Deacon is particularly curious. Of the four dates he furnishes where the indiction and the year of the world are joined, only one relates to the Byzantine era: *December 11, indiction 13 year 6478* (7). The other three: 1) *October, indiction 3, year 6467*; 2) *August, indiction 6, year 6470*; 3) *January, indiction 1, year 6485* (8) have the indiction which precedes by one unit the year of the world extending from September to the end of August. This represents an era of 5507, for which I confess not to find an explanation, except perhaps that the author being neither a computist nor a chronograph, will have

(1) R. DEVREESSE, *ibid.*, 289.

(2) *Ibid.*, 288 (where the date is: 897).

(3) These two authors are in the Bonn edition, following Theophanes Continuatus; Ps.-Syrneon, 603-760, and Georges, 763-874. The first part of Georges Cont. stops at the reign of Leo VI, from whom cease the aforementioned dating.

(4) This second part is found *ibid.*, at the following, pp. 874-924. The dates indicated are omitted; we take them in the edition of V.M. ISTRIN, *Chro:tika Georgija Aniatola*, Petrograd, 1922, t. II, 48 and 64.

(5) Only one of the two dates is specified by the month, December 20, indiction 3, 6454.

(6) Nos. 2 and 3 are also found in GEORGES CONTINUÉ (Part II), ed. ISTRIN, *loc. cit.*

(7) LÉON DIACRE, ed. Bonn, 93. Theoretically, this could be the protobyzanera. This is less likely because of the late date.

(8) *Ibid.*: 5-6; (2) 48; 3) 178. Nos.³ i and 3 are reduced to No. 2, which surely indicates the indictional year. In No. 3, I corrected indiction 4, which is impossible, by indiction 1, confusion being quite frequent between the two 'digits' A and A.

decided to copy the Alexandrian era, diminishing it by an entire 15-year indictional series, without suspecting that any world era must be based on a lunar cycle.

Imperial documents are hardly more informative than chronographs. Most do not bear a date, and those that are dated by the year of the world and the indiction do not allow us to know in an assured way, by the statement *alone*, which era is used, because it is or can be a time of the year common to the Byzantine era and the protobyzantine year. The notations of these documents are as follows: (i) *March, indiction 5, year 6155* (1); (2) *March, indiction year 6470* (2); (3) *indiction 7, year 6472* (3). The first imperial document which, *by virtue of the statement alone*, surely designates the Byzantine era is the novella of Basil II, of 4 April, *indiction 1, year 6496* (988) (4).

Ecclesiastical documents dated by the era of the world are, until the xie century, quite rare. The oldest of these is canon 3 of the council in Trullo, where the following notations are read: *January 15, indiction 4, year 6199* (5). We have seen in this date the first application of the Byzantine era (6). This is not certain, because who can prove to us that we are not facing the protobyzantine era? The years of this era are indeed ahead of the indiction of March 21 to August 31, and they arch me with the indiction of September 1 to March 20. The date indicated is therefore common to both eras. It took almost a century to meet another siastic ecclesiastical document accompanied by a world year. This is the speech of Taraise at his election to the patriarchy: it is preceded by a lemma indicating the circumstance and the date: *indiction 8, year 6293*. The month is not indicated, but it is known that the event took place in December. Here again, therefore, we are faced with a date that may be suitable for two eras (7). It is half a century later that we find for the first time a patriarchal document — it is not from Constantinople — where the Byzantine era is undoubtedly used with the beginning in September. This is the letter of the three iarch patrof Alexandria, Antioch and Jerusalem to the emperor Theophilus in the images. It is dated *April, indiction 14, 6344* (8). Half a century later, we find a dating in the Byzantine era, unfortunately without the indication of the month, in the preface to the Nomocanon of Photius: 6391. It is then necessary to go down to the 2nd half of the tenth century to meet patriarchal documents bearing the year of the world. These are two acts, one of which is of Polyeucte, dated 6472, with the indiction 9 incohérente (9), and the other of Nicholas II Chrysoberges, dated correctly according to the Byzantine era: *April 27, indiction 15, year 6495* (10).

To conclude this examination of the use of world eras in the various historical sources, it can be said that the definitive predominance and generalization of the Byzantine era is towards the end of the tenth century (ii). Until then, we must be careful not to be too assertive in favor of this era when we are in the presence of a year of the world that is not accompanied by an indiction, because it contains a possibility also for the Alexandrian era and for the protobyzantine era, and even for the rare era of 5507. I dare not speak of the era of 5516 which seems to have been the fact only of chronographs. There are cases where

(1) *JGR*, III, 253. I do not take into account the novella of 935, the manuscript tradition being uncertain.

(2) *Ibid.*, 285.

(3) *Ibid.*, 292.

(4) *Ibid.*, 303-304.

(5) V. N. BENE: SEVI, *Syntagme XIV titulorum*, I, Petropoli, 2906, 145.

(6) Fr. RtYKL, *Chronology*, 296.

(7) MANSI, XII, 986.

(8) Edited by J. SAKKELION, in Mayr.-Xcxôç I('cp1g, 8, 2864, 97.

(9) GRTJMEI, 11° 791.

(10) Mr President, ID., No. 802.

(22) Let us recall, however, the case of the typikon of Evergétis, from the middle of the "lue siècle", where the alexandrine. See above, p. 96, note 3.

the indiction itself is not enough to distinguish, namely when a part is common to two eras, the Protobyzantine era and the Byzantine era beginning in September. In these cases, as in those where the indiction is lacking, the era used can only be decided by means of other related data. It goes without saying that, when any precision is lacking, the lower the date, the more probability the probability is in favor of the Byzantine era.

It is interesting to note that a Western computist, in 771, already knows the Byzantine era (Ps.-Beda, *PL*, 90, 598).

REDUCTION RULES

Initially: from 1 January to 20 March, subtract 5,507; from 21 March to 31 December, subtract 5,508.

Subsequently: from 1 January to 31 August, subtract 5 508; from September to 31 December, subtract 5 509.

THE 28-YEAR SOLAR CYCLE THE 532-YEAR EASTER CYCLE

The lunar cycle of 19 years is enough to ensure the forecast of *the XIV lunae* in the monthly calendar, but does not make known the day of the week when it falls. Since the Christian Passover is celebrated on the Sunday following the *XIV Lunae*, it seemed useful to establish another cycle which makes it possible to predict on which day of the week the *EASTER XIV Lunae* meets and, consequently, the date of Easter Sunday. This is what the 28-year solar cycle responds to, the product of the multiplication of 7, corresponding to the numbers of the days of the week, by 4, corresponding to the Julianne tetraeterid. At the end of this period returns on the same day of the week to the same monthly calendar.

We didn't stop there. The 19-year lunar cycle bringing the *Easter XIV* to the same fortieth monthly, and the 28-year solar cycle bringing back to it on the same day of the week, the complex of the two cycles provides a cycle of 532 years (28×19), at the end of which begins an identical series of Sunday Easter. In this way they can be fixed in advance on the same dates. This perfect cycle caused the 95-year cycle, previously created to render the same service, to be abandoned.

The author of the 28-year cycle is unknown. As for the 532-year-old, three names appear about him: Annianos, Victorius of Aquitaine and Metrodorus. The first is attested by Georges le Syncelle. He tells us that Annianos lived under the patriarch Theophilus; he does not say that this computist invented the 532-year cycle, but that he composed a Paschal cycle of 532 that started from the year 5534 of his era (1). This may simply mean that he has made a particular application of such a cycle, and leaves intact the question of the first inventor.

We are informed about Victorius by himself. It is also a proper application of the cycle that we find in him, without him learning anything about his origin (2).

As for Metrodorus, we know him only from Photius, who attributes to him an even different application of the cycle. Photius declares that he does not know anything about his person and tells us nothing about his time. He reproaches him for giving false Easter dates (3). I imagine that he wanted to keep the two dates of 6 April and 26 March which were those of the canon of Anatole, maintained in the reform of 353, which shows him already old, and I would not be surprised if his table was the first of its kind. This does not mean that he himself came up with the idea of this period; it may be a simple application to Easter dates. It is not impossible, and I think it is even probable, that Anatole must have known it, if not even he is the inventor, and used it in his calculations for the age of the world.

(1) GEORGES LE SYNCELLE, ed. Bonn, 63.

(2) KRUSCH, *Studien II*, 25.

(3) *Photii bibliotheca Cod. 215: PG*, 103, 392 AB.

We can see that there are several forms or frameworks of the 532-year cycle. We will specify them later and, as they are not the only ones, we will establish the entire register. There are also several forms of the 28-year cycle. The order asks that we take it first.

We know three kinds of this cycle of 28 years (I am not talking about those who are involved in a cycle of 532 years without existence of its own): 1) The one in use in the West and which appears in the paintings of *The Art of Checking dates*: we had to call it Dionysian because it was preserved in the Dionysian era; 2) The one which is used by the Alexandrians and which is related to the Alexandrian era; 3) The one employed by the Byzantines. The latter, like the lunar cycle, was distinguished in *xcer& Oéatv*, *protobyzantin*, and *xa-rà cp15:7cv*, *Byzantine*.

Here we give a concordance table of these cycles, taking as a starting point the year 532, where begins a first year of the Dionysian cycle.

SOLAR CYCLES

Dionysian Era	Dionysian	Protobyzantine	Byzantine	Alexandrian
532	1	21 (6041)	20 (6040)	4 (6024)
533	2	22 (6042)	21 (6041)	5 (6025)
534	3	23 (6043)	22 (6042)	6 (6026)
535	4	24 (6044)	23 (6043)	7 (6027)
536	5	25 (6045)	24 (6044)	8 (6028)
537	6	26 (6046)	25 (6045)	9 (6029)
538	7	27 (6047)	26 (6046)	10 (6030)
539	8	28 (6048)	27 (6047)	11 (6031)
540	9	1 (6049)	28 (6048)	12 (6032)
541	10	2 (6050)	1 (6049)	13 (6033)
542	11	3 (6051)	2 (6050)	14 (6034)
543	12	4 (6052)	3 (6051)	15 (6035)
544	13	5 (6053)	4 (6052)	16 (6036)
545	14	6 (6054)	5 (6053)	17 (6037)
546	15	7 (6055)	6 (6054)	18 (6038)
547	16	8 (6056)	7 (6055)	19 (6039)
548	17	9 (6057)	8 (6056)	20 (6040)
549	18	10 (6058)	9 (6057)	21 (6041)
550	19	11 (6059)	10 (6058)	22 (6042)
551	20	12 (6060)	11 (6059)	23 (6043)
552	21	13 (6061)	12 (6060)	24 (6044)
553	22	14 (6062)	13 (6061)	25 (6045)
554	23	15 (6063)	14 (6062)	26 (6046)
555	24	16 (6064)	15 (6063)	27 (6047)
556	25	17 (6065)	16 (6064)	28 (6048)
557	26	18 (6066)	17 (6065)	1 (6049)
558	27	19 (6067)	18 (6066)	2 (6050)
559	28	20 (6068)	19 (6067)	3 (6051)

The first of these cycles is not related to any era and must predate the other two, because it could not have been established in competition with them. There can, however, be no question of giving it an antiquity out of proportion to its purpose. This is what has generally been done by setting as a starting point the year — 9 of the Dionysian era (where 1 of this era = 10 of the first solar cycle). This can only be the result of a retrograde calculation projecting the cycle into the past, a calculation undoubtedly due to unknown computists, who went back to that date and stopped there, because they wanted to cover the entire Christian era, which interested them.

The probable origin of this cycle would be placed, according to Ginzel, in 328, year which, in the paintings of *L'Art de vérifier les dates*, begins a solar cycle. The probability, according to this author, comes from the fact that this year is the first of such a cycle after the Council of Nicaea, which dealt with the Paschal question (i). We do not dare to comment on such a hypothesis. The case of this cycle shows us at least that we could easily accommodate a solar cycle and a lunar cycle not tuned together. And this is understandable, if it is only a question of fixing easter dates. Any year indeed can serve as a starting point to find the weekday of these dates. It is different if we hear to express the natural order of things, the one that proceeds from creation. The two cycles must then begin in the same year. Strictly, even, they must start on the same day of the week and month. This concordance is realized, as we have seen above, in the era of Anatole.

ORIGIN OF THE ALEXANDRIAN SOLAR CYCLE

Touching on the 28-year solar cycle, Schwartz develops a theory that we need to examine. For him, it is the Alexandrian solar cycle, its origin and its role in the creation of the era of the Alexandrine world. Here it is summarized.

The Alexandrian lunar cycle being constituted, a lunar cycle of 28 years is also established. He was given the year 304/305 as his first year; it happened that after two cycles, in the year 360/361, there was a coincidence for the restart of the lunar cycle and the solar cycle. By multiplying the years of these two cycles, 19 and 28, we obtained the great cycle of 532 years. By multiples of it, taking into account that it was necessary to respect the mysticism of the number 5500 for the coming of the Christ, we obtained the Alexandrian era of the *ter* thôth 5493 BEFORE our era (2).

Schwartz does not give an explanation of this date of 304/305 for the creation of the solar cycle. This year is not the first of a lunar cycle or an indiction (3). It is the first implement of a Julian tetraeterid. Why prefer it among so many others? Why especially have we abandoned the year 285, the first of a tetraeterid and the first year of the first Alexandrian lunar cycle? This year should first have come to mind by the advantage it presented of giving the same beginning to the two cycles which interested the Pascal computus, by inserting them also in the years of Diocletian. Such an arrangement is so natural that we actually find a form of 532-year cycle that begins in that same year 285. Other years could be advantageously chosen: those in which the *Ie*^r thôth fell on a Sunday: such as 286-287, 297-298, 308-309, 313-314, or the years 286, 297, 303, 308, 313, where March 21 was also a Sunday.

Schwartz's designation of the year 304/305 as the beginning of the first Alexandrian solar cycle is all the more surprising since it makes the year of the Alexandrian world era begin in the *Ie*^r thôth, and the *ter* thôth in the year 304-305 falls on a Tuesday. If at least he had thought of March 25 which, in the year 305, is a Sunday, concordance that exists precisely in the first year of the Alexandrian world era, and if he had added that the year 305 was the first where this concordance took place, after the creation of the Alexandrian lunar cycle, his system would at least have had an appearance of truth. One appearance, we say, because can we not conceive of the cycle previously established so that the year 304/305 is only a renewal of it: this is the position of D. Lebedev (4). And if we think of the era that is said to result from it, is there not the possibility of a reverse report? It is not because the year 304/305 is the first of an Alexandrian cycle that it should be put at the origin of this form

(1) GINZEL, III, 132.

(2) Ed. SCHWARTZ, art. Chronicon Paschale, *RE*, III, 2466.

(3) *I*^r indiction was then 5 years, see Part III, p. 192.

(4) D. I. LEBEDEV, Tak nazyvaemaja "vizantijskaja" era, *Viz. Obozr.*, 3, 1917, 19-20.

cycle; just because it fits in with the era does not mean that it should be seen as an explanation for the era. Wouldn't it be the era that would be the explanation for the cycle? Before deciding definitively, let's look at the explanations proposed by Lebedev.

The system of cand scholar, in substance, that is to say as to the problem of the era, does not differ from that of Schwartz. It is simply the date put forward by him that does not satisfy him. For him, it is higher in the past, among the cyclically corresponding dates (i.e. distant by a multiple of 28) to 361, the year of common beginning of the lunar and solar cycles, that he will look for the origin of our cycle. First presents itself to him the year 277 ($361 - 277 = 84 = 28 \times 3$). This is the one he holds for the beginning of the first lunar cycle of Anatole; it therefore seems quite natural that Anatole had to establish it or at least accept it, if it already existed, as the starting point of the solar cycle: the two cycles will thus have been set in motion together. A very attractive explanation for whom the origin of the Lunar Cycle of Anatole is placed in 277. Lebedev, however, is not satisfied with it (1). This date is not old enough. Another is advanced: 249 ($361 - 249 = 112 = 28 \times 4$). This year is the first of a reign, celui of Decia. It is also the first of Rome's second millennium. For this double reason, Dionysius of Alexandria took it for the beginning of his lunar cycle of 8 years. What particularly strikes Lebedev is that this year 249 formed the starting point of a so-called Roman era and after 532 years (28×19) gave birth to the *kronikoni* of the Georgians, another period of 532 years. This period thus has its explanation by this foundation on the solar cycle (2). But Lebedev wants to go back even higher, namely, to the time of the Easter quarrel under Pope Victor. The first year of the cycle that then occurs is 193 ($361 - 193 = 168 = 28 \times 6$). At that time the Church of Alexandria was led by Saint Demetrius (189-231). However, the Ethiopian liturgical books honour this bishop for having established the calculation of the epacts to fix the dates of Easter and the preparatory fast. It is entirely appropriate to link this computus to the aforesaid date, which is also the first year of a reign (Septimius Severus). Lebedev thinks that Demetrius used an 8-year lunar cycle and that his initiative consisted in joining the solar epacts, thus marking their periodic return to the same Easter dates. He therefore had to compose a table spread over a multiple of 28 years, 56 years at least. When the 8-year lunar cycle was replaced by another (the 19-year cycle), nothing was changed in the 28-year solar cycle that continued to take place according to the course begun. The year 193 is the earliest precise date to which Lebedev relates the Alexandrian cycle of 28 years (3). But it is even higher that he places the creation. He honoured it, not to Christian computists, but to Alexandrian astronomers. This origin seems to him to be assured by a text

de Paul l'Alexandrin, fl. 3013 $\gamma\upsilon\iota\iota\omega\upsilon$, 77- $\iota\iota\alpha\rho\Lambda\Lambda\omicron\varsigma\iota\tau$)v, written in the year 94 of Diocletian (377-378), where the term of 0E.:o i to designate the days of the week manifests an ancient and pre-Christian tradition. Certainly, the antiquity of Paul's terminology cannot be a proof for that of his calculations, because it is also seen in computer specialists, such as George the first theorist of the Byzantine era. Moreover, Paul makes no mention of the 28-year cycle: it is rather involved than explained in his calculations; by applying them to the year 94 of Diocletian, he does not give it a rank that would allow to identify a certain form of cycle. But it is from the calculations themselves that Lebedev deduces Paul's employment from the 28-year-old Alexandrian cycle. Paul warns that it is necessary to add two days called $z\alpha_0\omicron\chi\tau\alpha.\iota$. (4.44 to the addition of the *urs* contained in the years of Diocletian before operating their division by 7, from which will result the day of the week. Lebedev believes it necessary to explain these two days to be added by the discrepancy that exists between the era of Diocletian and the Alexandrian era which are not matched. The solar cycle used is the Alexandrian solar cycle. But its application to the years of

(1) D. LEBEDEV, *ibid.*, 22-24.

(2) *Ibid.*, 24-26.

(3) *Ibid.*, 26-29.

Diocletian requires the addition of the two α_0 to $X_{t,zod}$, (1). This explanation would be convincing if it were the only one conceivable. In fact, there is a much simpler one. These two days represent the difference of the epacts in the first year of Diocletian, between the 1^{er} θ ôth, which falls on a Friday, and the following Sunday. This incidence of the 1^{er} θ ôth is something which must have been noted as soon as this era was constituted or shortly afterwards, and which it was easy in any case to determine by retrograde calculation what one wanted to fix the process in question. Even if it had been necessary to resort to a world era already constituted, that of Constantinople, formed in 353, would have done the trick very well. Let us not forget that the computus which was then established had not yet, at the time Paul was writing, been supplanted by that of Theophilus of Alexandria. Let us also not forget that there is no attestation of the Alexandrian era before the episcopate of this same Theophilus. We will therefore conclude from all this that nothing is less certain than the origin and seniority that Lebedev assigns to the 28-year-old Alexandrian solar cycle based on the data of our astronomer.

But let's also see what to think of the other dates put forward by Lebedev, 193, 249, 277. Wouldn't one or the other be at the origin of the cycle? Let's start with the oldest, 193. This is far from being the case. It is not indicated anywhere. It is because it is in line with the envisaged cycle that Lebedev appoints it. In addition, and above all, the activity of Demetrius in fact of computing is not assured historically. Eusebius does not mention it, but simply indicates this bishop as a contemporary of Pape Victor, whose intervention he recounts about the celebration of the Passover. This is probably what gave rise to the subject of attributing to Demetrius an honourable role in the quarrel. Moreover, the affabulation presented by the Copto-Ethiopian liturgy does not specify in any way whether they are solar or lunar epacts, but it is very likely that it is aimed, at least mainly, at the lunar epacts and consequently the Alexandrian lunar cycle, on which the date of Easter depends more directly. It will have been traced back to the first quarrels concerning this feast and, consequently, attributed to the bishop of Alexandria sitting at the time.

If it is the year 249, to place there the common beginning of the Alexandrian solar cycle and the α_0 of Bishop Dionysius, we lack here too a sufficient point of support. The year 249 cannot be taken as a first year of reign, for Decius did not begin to reign until September-October 249, the Egyptian year 248-249 being completed at the 1^{er} θ ôth (August 29). Lebedev assumes that the year 250 being that of the second consulate of Decius, the previous year will have been taken as the first year of the reign. It is not possible to attribute such a design to Denys. It should also be noted that the Paschal letter in which Dionysius formulates his α_0 and his rule of the equinox was written during the persecution, so not before 250; it is to be believed that the bishop, concretely, meant the future Easter, not the past Easter, including that of 249. As for the "Era of the Romans", beginning with the second millennium of Rome, precisely in 249, and the cycle of 532 years, begun on the same date and continuing with the α_0 of the Georgians, there is another way to explain it than to make it depend on the Alexandrian solar cycle of 28 years. This means, simpler, more natural, is the attachment to the protobyzantine lunar cycle of 19 years. This is what we will see in the next chapter.

We do not have to go into the year 277. We have seen above that there is no real coincidence at this date between the Anatole cycle and the Alexandrian solar cycle, since the latter is not counted in the same way. This is the year 258, where there is a common epactal beginning of the sun and moon that Anatole was able and had to place the beginning of a cycle of 28 years. It is such a coincidence that Anatole had to find at creation, but he had to take into account the mysticism of the number 5500 relating to the coming of Christ. It is the year 5500 BCE that the

(i) D. I, *EEDev*, *ibid.*, 30-36.

provides it. This was the second year of creation, the first, 5501, being the precyclical year.

Thus, for none of the years indicated, 193, 249, 277, 305, there is no sufficient basis to see the date of creation of the Alexandrian solar cycle. There is also no evidence, testimony or clue, that it existed before. But it must also be said that they must all be set aside. We will do this by considering what is the basis of the Alexandrian solar cycle. This basis, as Lebedev points out, consists in the concordance of 25 March with Sunday. The year in which this concordance is the first of the cycle. Why was this concordance chosen to make it the basis of the cycle? This is, says Lebedev, because March 25 was the Roman equinox (1). That such a reason could have, in Egypt, where the year began the 1^{er} thôth, determine the foundation of the solar cycle, this is what seems quite implausible, either that we place ourselves before the Easter quarrels of the end of the IIth century (they are the ones who made the attention turn on the vernal equinox), or that we place ourselves in their time, because then the equinox was already fixed by Ptolemy on March 22. And even assuming that in 193, that in 249, we still observed the Roman equinox for the solar cycle, it is sure at least that Anatole placed it on March 22, and we saw that on this monthly date, when he put the beginning of the lunar cycle, he also placed the beginning of the solar cycle, that in 258. The basis of 25 March, if it existed then, was thereby removed. Let's move on.

When the Alexandrian reform of computus took place, the concordance on the same day of the epactal trade of the sun and the moon was broken: that is why it was not sought, the foundation of the lunar cycle being moreover only conventional, that the first year of the solar cycle was a year in which either the 1st day or the 2nd of March fell on a Sunday. It was found much more convenient to start this cycle, like the lunar cycle, with the years of Diocletian, that is to say at the 1^{er} thôth of the year 284/285 (August 29, 284): it was a Friday. There is evidence of the use of such a form of solar cycle in the method of Paul the Alexandrian to find the days of the week. It is indeed by the years of Diocletian that he proceeds. The 28-year cycle that is framed there is more involved than explained, but any other form of this cycle is excluded. This era began on a Friday, it was enough to add two days to the total of the days calculated in the years of Diocletian. To involve, like Lebedev, the era of the Alexandrian world, to explain this addition, is not only superfluous, but without reason to exist, because if this era already existed and was known, one would simply have divided the years of the world by 28, without having to add anything to the total. We see here that the date of March 25 is completely foreign to Paul's calculations and consequently that the solar cycle that is based on it is ignored as is ignored the era that it accompanies. Abolished, if it existed, by Anatole who placed the equinox on March 22, it could not be restored by the Alexandrian reform of the computus, which dated the equinox to March 21, so that it is absolutely excluded that in 305 and thereafter it was possible to use a solar cycle based on the Roman equinox. If, therefore, the date of 25 March can be the beginning of the Alexandrian solar cycle, it can only be, for another reason, and this could not be established until later. Note that Paul, who wrote in 378, still ignores this cycle and the era associated with it. But at this date, we are very close to the time when the Alexandrian era was created. There is therefore every reason to believe that both were built at the same time. That is what will become clearer.

THE SOLAR CYCLE AND THE GLOBAL ERA

To constitute the Alexandrian era, it was first necessary, this is the primordial element, to make it begin with an early Alexandrian lunar cycle, calculated, by means of multiples, on the recurrence as close as possible to the number 5500, a number which, for mystical seasons, means the years elapsed before the advent of Christ. In addition, and this required the previous condition, that the

(1) J. I. EBEⁿEv, r').

first year of the world, for a mystical reason too, began on March 25 on a Sunday. The mystical reason is that March 25 is the day of the Incarnation of the Word. The first day of creation could only be put on Sunday. The year which meets these combined and mutually conditioned requirements: the first year of a lunar cycle built according to the Alexandrian computus, concordance in this year of 25 March and Sunday, distance from the recurrence of the lunar cycle closest to 5500, is the year 5492 BCE. Indeed, $5492 + 285$ (starting point of the Alexandrian cycle) = $5777 = 304 \times 19 + 1$ (the recurring year in 285).

In this creation of the Alexandrian era, we see obviously that it was necessary to start from a pre-existing lunar cycle and calculate the necessary multiples taking into account the other requirements; As for assuming a pre-established solar cycle, it does not appear at all. The only thing that is required is that in the first year of the lunar cycle at creation, we have a March 25 which is a Sunday. But this coincidence may well have been conceived and sought precisely in view of the era to be constituted, therefore it is at the same time as this that the solar cycle could be built. We can also imagine that the solar cycle was previously established on the basis of said concordance, independently of the lunar cycle and without the idea of the era, and that then from the meeting to the same year of the beginning of both, one has by means of the cycle of 532 years built the era of the Alexandrian world. Such a process is theoretically possible; it is not historically. For it to be historically, it would be necessary that the mystical idea that made choose March 25 existed before the creation of the Alexandrian era: however, this date of March 25 could not be taken as that of the Incarnation of the Word until the end of the 19th century, after the adoption in the East of the Christmas festival on December 25. It was precisely at this time under Bishop Theophilus of Alexandria (385-413) and Emperor Arcadius (395-408), that the Alexandrian era was created. It is therefore obvious, historically, that it was at the same time that the Alexandrian era was created and in the act of its creation that 25 March was intended to be the first day of the world (1). As a result and by the same time, the Alexandrian solar cycle was created.

To obtain the year 5492 BCE as the first in the world, it was possible either to calculate the decanting of years from the Anatole era, resulting from the shift in the cycle, taking into account the precyclical year of that era, or to look at which beginning of the lunar cycle 25 March fell on a Sunday — it was necessarily in 361 — and then to move from there, by a multiple of 532 and reach 5492 BCE as the first year of the world. Or, much more simply, we will have eliminated a year, the precyclical year, in the era of Panodorus and taken as the first year of the world the first year of the Alexandrian solar cycle, where precisely the desired concordance was located. Panodorus is, in short, as for the year, the creator of the Alexandrian solar cycle; it is also he who, in creating his era, provides the elements from which would emerge the era of Annianus, said by Alexandrian antonomase. As we have seen above, Panodorus simply transposed, including the precyclical year, the Era of Anatole according to the lag resulting from the reform of its cycle.

(r) It would indeed have been possible to place the creation of the world a higher lunar cycle, namely, at 5511 BCE, and then the 19th day of creation would have been March 22, and the 4th day, when the sun was created, March 25, and this would have been well suited, Christ being the sun of justice, and March 25 being the day, recently admitted, of his Incarnation, and especially the traditional day of his Resurrection. The year commonly received for this last event was the year 31 AD = 5542 of the one we assume here. To save it, one could choose in the first decade after 5500 the year in which to place the birth of Christ; there was one that suited admirably: the year 5508 = minus 4 BC. At the same time as it ensured the normal duration of Christ's life, it brought one more mystical concordance: this year, in fact, March 25 was a Wednesday. In this construction, the solar cycle would have begun in the year of creation, either on March 25, the genetic day of the sun, or rather on the 22nd, for convenience of calculation. Such a system, respecting history, corrected two serious drawbacks of that of Panodorus: birth of Christ before 5500, and break with tradition on the date (days and year) of the Passion and resurrection, put by him on 19 and 21 March 4. But it did not offer as much or as harmonious mystical parallels as the one that was adopted.

The shift in the cycle resulted, for the first year of the cycle, in the incidence of March 21, equinox, Wednesday and, consequently, Sunday, March 8 or March 25, as the first day and foundation of the solar cycle. For the precyclic year, Panodorus gets March 19, Sunday, as the first day. We have said how the need for him to give three years to the public life of Christ prevented him from keeping the same date as Africanus, 31 AD, to the Passion and Resurrection of Christ, March 2, 3 and 25, and to carry these events to 34 AD, to March 19 and 21, and how in this operation he had changed the date marked in the cycle for this year (5th of the cycle), **March 21, march 20, with effect of having the Resurrection of Christ to March 21, equinox.**

This essay by Panodorus clearly shows that the date of March 25, as the date of the Incarnation of the Word had not yet been imposed, and that in any case it had not yet been used to make it the first day of the world.

As the first year of the solar cycle of Panodorus was on Sunday, March 18 or 25, it was very easy for Annianus, without calculation, simply by removing the precyclical year, to obtain its world era march 25, 5492 BC. To put it better, it was this coincidence of 25 March and Sunday, the 25th being already taken as the date of the Incarnation, that suggested making it the first day of creation.

This is the origin of the Alexandrian solar cycle. It derives by shift, like the Alexandrian lunar cycle, from the Anatole computus. But unlike the lunar cycle, it was only when the era based on it was created, and in this very creation, that the Alexandrian solar cycle was also created, that is to say towards the end of the I/M. Previously, we used a solar cycle, or a calculation involving it, which started, with the lunar cycle, from the first year of Diocletian.

For the solar cycle of the World Era of Constantinople, the process was much simpler. It was constituted at the reform of computing a natolien and by this very reform. Everything was done in the same operation. The shift of the lunar cycle led to that of the solar cycle, and similarly that of the world era. Both cycles began in the same year as with Anatole, but the concordance of the starting point on the same day was necessarily destroyed by the uninterrupted development of the epacts of the two stars. Let us also remember that in the proto-Byzantine era, alignment with the results, for the solar cycle as for the lunar cycle, to distinguish the

Oécnv cycle and the

Y.Y.-rdc cycle_{605LV}. The Byzantine era obviously had only the za cycle. Tà cAcnv.

In conclusion, neither of the two alexandrian and constantinopolitan world eras (proto-byzantine and Byzantine) proceeds or depends on a pre-established solar cycle independently of the lunar cycle, from which one would have traced, by a multiple of 532 (28 x 19) to the first year of creation.

But the Alexandrian era was built directly on a pre-established lunar cycle, to which was attached, when the era was created, a cycle accompanied by 28 years. The Constantinopolitan era, with its lunar cycle and its solar cycle, results from the shift of all these elements at once operated on the anatole computus.

THE PASCAL CYCLE OF 532 YEARS

Only the Era of Anatole was built on a pre-established lunar cycle and solar cycle, but fixed in dependence on one another by their beginning on the same day of the month and the week. It is very difficult to conceive that Anatole built his era, that is to say, calculated the return of this concordance at the origin of the world without resorting to the cycle of 532 years. However, it is not a multiple of 532 that separates the beginning of the first cycle starting in 258, but a multiple of 532 minus the duration of a 95-year cycle. The reason for this is that this distance: 5757 (= [II x 532] — 95) offered him at the origin of the world the same perfect concordance for the

beginning of both lunar and solar cycles and allowed him at the same time to respect the mysticism of the number 5500 for the birth or incarnation of Christ. The cyclic distance of 95 years, except when plays the bissextle, reproduces indeed and ensures here, the year 258 not being reached by this exception, the same perfect agreement. In other words, the year 5500 BCE offering the same concordance for both cycles as the year 258 CE, it is the distance between these terms, i.e. 5757, which was **chosen for the first departure of the cycles at creation**, in preference to the distance 5852, multiple of 532 (532×11), which would have put this departure in the year 5595 BC and thus undermined the mysticism of numbers concerning the advent of Christ.

The cycle of 532 years which was in progress in 258 (it was the ^{second} from 5500 BC) was to end, taking into account the precyclical year of creation, in the year of the world 5853. It was therefore in 5854 that a new cycle had to start again. This year corresponds to 353 AD, just 95 years after 258. It is quite likely that Anatole must have marked this distance before the end of the cycle, and that this is what Victorius' indication responds to: *Initium paschalis graecorum seu Machedonurn post annos XCV*. The year 353 is the year in which the reform of the lunar cycle of Anatole took place. It seems that it was on the occasion of the completion of these 95 years and thus of the great cycle of 532 years that this reform was made. Such a deadline, especially after the example of the Alexandrians, called for a clarification, a reversion computing.

The reform, by the shift of the lunar cycle, raised the era of the world by eight years. But the cycle itself was aligned with this era. In this way, the year 5853 instead of being the end of the cycle, as in Anatole, became the beginning of the cycle. Chez Anatole, it corresponded to 352 AD; now it meant the year 344.

This year 5853, we remember seeing it inscribed in the 1.-poz6, - iv of the *Chronicon Paschale*. It does not indicate that it is the beginning of a great cycle of 532 years. But placed there and so to speak displayed in this document which is like the program or the schema of the new computus, such a date can not be the result of chance. The computists certainly intended to **start a new 532-year cycle** by shifting from a previous cycle, that of Anatole. It is this great computist that can be considered the inventor or at least the oldest known user of this great cycle.

The 532-year cycle was therefore first used to constitute the era of the world. But it is obvious that it could also be used for the fixing of Easter dates. The length of the period, the distant deadline for the return of the same Easter made a shorter period, which was that of 95 years, desired. Since it was too careful for its correct application and thus exposed to errors, it was not long before the 532-year period was also used, and the two periods were used concurrently.

The oldest historically located authors who report the 532-year cycle as the Easter period are Annianos, around the year 400 (i) and Victorius (2) around the middle of the fifth century. With them, it is also necessary to name Metrodorus (3), whose time is unfortunately not known.

The applications of the 532-year cycle are quite numerous. Here is the list (we indicate only those that have mentions):

First there are the cycles that take their starting point in the year of the Passion or Resurrection of Christ, three in number:

1) That of Annianos, corresponding in 5534 of his era (beginning of the year 25 March, day of resurrection) corresponding to the year 42 of the Dionysian era. It is attested by George the Syncelle (4).

(1) GEORGES LE SYNCHELLE, 63.

(2) KRUSCH, *Studien II*, 25.

(3) Photii bibliotheca, loc. cit.

GO GEORGES LE SYNCHELLE, *loc. Eyelash*.

The table is not preserved. The end of the first cycle is marked by patriarch Nikephoros in 6065 (-- 573 dionys.) (1).

2) That of Victorius, starting at the consulate of the two Gemini, 28 AD, the year in which he placed the Passion of Christ. This table is preserved (2);

3) That of the *Chronicon Paschale*, beginning in the year 5540 of its era (protobyzantine era), corresponding to the Dionysian year 31. The cycle begins with the year on **March 21**. The end of the first cycle is marked in the *Chronicon* in the 35th year of Justinian, namely 562 (3).

Then come two cycles starting from the creation of the world:

4) In the Alexandrian era, first year of the 1st cycle = 5492 BC, first year of the 12nd cycle: 5853 = 361 Dionysian. Among copts and Ethiopians, the years of this cycle are called years of Grace or Mercy (4). The cycles themselves do not have a numeration.

5) In the Byzantine era: first year of the 1st cycle = — 5508 (— 5,509 protobyzantine), first year of the 12nd cycle: 5853 = 345 Dionysian (= 344, if the era is protobyzantine).

Forming other eras or proceeding from other eras, we have:

6) A cycle used by Ethiopians, starting with the era of Diocletian, corresponding to the year 5777 of their world era and 285 Dionysian (5). The years of this cycle are also named grace or mercy. It is such an era that followed Metrodore who is probably the author (6).

7) An era of the Alexandrians of which we see an example in Ananias of Iraq, which puts the commencement of its Paschal table of 532 years in the year of the Alexandrians 828 (7). This date can only be explained if the point of departure of the calculation is fixed at the beginning of the Paschal cycle which, focused on the Alexandrian world era, begins in the year 172 BC. We obviously chose this cycle for the development of an era because it includes in its course the coming of Christ.

8) The Armenian Paschal cycle, created in the conditions that we will say later, and whose beginning is in the year 562 Dionysian.

9) The era of the Romans that we also have to explain and that begins in the year 249.

10) The 532-year Georgian cycle according to the Georgian world era and both deriving from the Roman era. This cycle began in 781 and began again in 1213. We will also have to deal with that.

ii) Finally, there is, being attached to any era or event, the cycle of 532 years which is in the paintings of *L'Art de vérifier les dates* and which has been attributed to Denys the Little, attribution now disputed. We will call it the so-called Dionysian cycle.

12) There is also a cycle that begins at the Incarnation of the Savior. It is reported by the *Chronicon Paschale*, which does not indicate those who used it (8), so that it is impossible to know in which era it fit and consequently what was its chronological starting point.

13) The same source also reports a cycle that began at the Resurrection of Christ without marking in which year those who employed him placed this event (9).

(1) *Nicephori..., opuscula historica*, ed. DE BOOR, 98.

(2) Edition in KRUSCH, *Studien II*, 27-54.

(3) *Chronicon Paschale*, 685-687.

(4) M. CHAINE, *La chronologie des temps chrétiens de l'Égypte et de l'Éthiopie*, Paris, 1925, p. 111-119.

(5) *Ibid.*

(6) *Photii bibliotheca*, loc. cit.

(7) Fr. CONYBEARE, Attardas of Sbire: (A. D.C. 600-650), *BZ*, 6, 1897, 584.

(8) *Chronicon Paschale*, 21.

(9) *Ibid.*, 21.

We give below a synoptic table of the various cycles dated 532 years, following the chronological order, not of the creation of the cycle, because this order is often not known, but of the year in which its starting point was marked.

EASTER CYCLES OF 532 YEARS ACCORDING TO THE CHRONOLOGICAL ORDER OF THEIR STARTING POINT

(The dates in parentheses are those of the Dionysian era)

1. In the Byzantine era: 1C¹ = 5508 BC, 12nd (345)
2. In the Alexandrian era: 1 = 5492 BC; 12^e (361);
3. Era according to the Alexandrians: 172 BC. J.-C.;
4. From the Nativity of Christ: 1^{er} (?) (without a landmark);
5. Of the Passion (Victorius): 1^{er} (2 8); 2nd (560);
6. Of the Passion (*Chronicon Paschale*): 1^{er} = 5540 (31); 2nd 6072 (563);
7. Of the Passion (Annianos): 1st = 5534 (4²); 2nd 6066 (574)
8. In the Roman era: 1 ----- 5758 (protobyzantine era) (249); 2nd, 6290 (781);
9. In the era of the Martyrs: 1^{er} I Diocl. = 5777 (Alexandrian era) (284'5)
2nd 533 Diocl. = 6309 (Alexandrian era) (816'7);
10. So-called Dionysian cycle: 1 (532), 2nd (1064);
11. Armenians: A) Aeas Cycle: Armenian Era: 10 (562); (B) Ananias cycle: 1^{er} (657);
C) Cycle of John the Deacon: Armenian era: 533 (1084);
12. Kronikoni of the Georgians: 1 (thirteenth **counting since** creation) = 6385 (world era Georgian) (781);
2nd (counting since inception) — 6917 (world era Georgian) (1313).

THE NATIONAL ERA AND THE EASTER CYCLE OF ARMENIANS

It was through Armenian historians that we experienced the reform of the Anatolian cycle in 353, from which the protobyzantine era, then the Byzantine era, emerged. They talk about it because it is intimately linked to the heart and they had to talk about it as soon as they wanted to explain the origin of this era. It is this filiation that we are going to expose now.

We have seen above that at the end of the 95-year Anatolian cycle, which ended in 352, Andrew, one of the main authors of the reform that took place then, composed a table of the *Easter XIV Lunae* that began in 353 and ended in 552. It was the following year that served as the starting point for the Armenian national era. Historians of this No.Us nation make known the circumstances that gave rise to the creation of this Era. We will use their testimony, but we will be careful to unravel the original elements of those that are due to a transformative perspective.

Here is what John the Father said: "The year in which the calculations of the bicentenary canon (of Andrew) were exhausted, began the Armenian era. It was 304 years since the Roman era, which makes 16 cycles of 19 years. Then the Armenian era opened; the Easter full moon returned on April 13. After 9 years was invented the perfect cycle of Alexandria by Aëas and his collaborators, which is composed of 532 years. The Easter full moon was set for April 4, which we call the 10th *gun*, counting from April 13. It was made the initial point of this cycle. In the first year of the Armenian era, the spring equinox was at the 13th *ahégan*; when the fiftieth cycle was founded after 9 years, the equinox fell on the 15th; it was the second year of the *tetraeterid Olympiad* called leap (t). »

The invention attributed here to Aëas of the 532-year cycle must be understood only as an application of this cycle specific to the Armenian nation, since it existed before Aëas. We will return later to the era of the Romans.

What there is to note is that the first year of the era that has its full Easter moon on April 4 is called *roe canon*, counting from April 13. This means, of course, that the Easter full moon of April 13 is that of the first year of the lunar cycle, and that of April 4 is that of the 10th year. This is precisely what we find in the cycle described in -.. -pozr'ic; " IV of the " *Chronicon Paschale* which presents the cycle Y-C/.17. Oéaty of the reform of 353. There is therefore no doubt that this reform was carried out and received in Armenia, and precisely according to this cycle.

The text of John the Deacon also tells us that nine years passed after the end of the bicentenary cycle, before the 532-year cycle was created; that is, it was the first year of the era

(1) JOHN THE DEACON, in D MAURIER, 57-58.

in 562, the 2nd year of tetraeterid, as he specifies. But it does not give us the reason for this nine-year interval. The explanation is provided by several other authors.

Here's what an anonymous author says:

"During the reign of Justinian, came the term of the 200-year period of which Andrew was the author, and disorder began to creep into the return of the Easter full moons, as well as into the calendar. So a scientist... named Aeas, summoned to him men versed in these matters... They created a period whose revolution is 532 years... They also found that it ended on 25 March, starting on 13 April. As nine years had passed since the deceemnovennial cycle (this is the proto-Byzantine cycle), they took 4 April (i.e. the year in which the full moon is 4 April) and said Io for the Armenian era, a term they adopted taking into account the progression of this era, and deciding that they would then advance nine years, and subsequently 19 in 19, and that the five-centenary period would open on 4 April (1). »

In clearer terms, this means that the year in which the era was founded, i.e. 562, when the full moon was April 4, would be called the Io° of the era, because the starting point of the era was placed nine years earlier, when Andrew's bicentenary cycle was completed in 552.

Another author, Guiragos, says: "As, when the 200th year of this cycle (of Andrew) expired, the full moon arrived on March 25, while in the beginning it was on April 4, one could not go back to the origin, because after March 25 came April 13, and nine Easter full moons were in the meantime. Then the disturbance was introduced into the order of the feasts and into all the methods of the calendar; Patriarch Moses gathered the scholars of his time, among whom were Athanasius..., and they founded an era for the Armenians, in order to regulate by this means the time of the Passover and the other feasts. Mais having been unable to stand in the true point and protect himself from error during the course of nine years, a very skilful scholar of Alexandria, named Aeas, seeing the confusion reigning in all the Churches, gathers with him the computists of all the countries... At then, having continued the canon of André by a cycle of 532 years connected with this canon, they created the period called cinquentenaire... and gave it as its starting point on 4 April (2). »

Let us quote another testimony, that of Orbélian:

"The year 4 of the patriarchat of Moses, catholicos of Armenia, and the 10th of the government of Mezizius Knouni, marzban of Armenia, in 553 of the era of the Savior (in reality 552 AD), ends the bicentenary cycle of Andrew. That same year, the Passover fell on March 25, while the cycle (of Andrew) started on April 4; and we could not resume at the beginning, because after March 25 was on April 4 and 9 full Easter moons were missing in the meantime. This caused the order of all annual feasts to be disturbed, and it became necessary to establish an era for the Armenians in order to remedy this disorder. Indeed, this reform was accomplished in the 10° year of the Armenian era by Aeas who settled the infallible method of the fivecentenary cycle. . When we establish our era in a great council held in the city of Tevin, the province of Siounik' had as bishop Verthanès... (3)"

Based on these and similar testimonies that needless to be reported, this is what happened.

According to the reform of 353, the 1st cycle of the new style began proleptically in 344 and ended in 362 but it was as early as 353 that, by necessity, had to begin its application. It was therefore this year that André had to set his table. He thus began it in the middle of the first cycle, at

(1) DULAURIER, 59-60.

(2) DULAURIER, 62-63. When the Armenian author says that the 532-year cycle is connected to Andrew's canon, it must be understood that it begins at the same Passover as him, April 4, but not that it begins where the said canon ends.

(3) DULAURIER, 64-65.

year 10e and continued it until the year 552, year 19 of the cycle. We thus have to count the 200 years to complete cycles whose completion is in 552, preceded by 10 years appearing in the first cycle (353-362). The last year of André's table was the last of the II cycle. That was in 552. The year 553 was to be the first of the 12nd cycle. The Armenians did not understand André's table; they imagined that it was a cycle bringing back the same Easter moons after 200 years. They were disoriented. A confusion ensued that ended only after nine years, and it was only in the first year that they again met the Easter moon of April 4 that began Andrew's table and created the cycle of 532 years, in the first year of their era.

This era, the thing is to be noted, begins precisely with the beginning of the proto-byzantine lunar cycle and proceeds from it. It is in the first year of this cycle that the creation of the era is thus suspended.

Care must be taken, however, not to confuse the Armenian era with the 532-year Armenian cycle. All the testimonies agree on this. The era was created as soon as the bicentenary cycle ended in 553 (1), without any consideration of cycle. It is likely that Andrew's table had in agreement a regular numeration where to place the Paschal moons, either by indictions, or by the era of the protobyzantine world, or by years of Diocletian as in *tpoz/4*. The Armenians wanted to have a number of their own, which they started where Andrew's table ended. It was their era that was instituted at the Council of Tevin held under the Catholicos Moses (552/553). It was only after nine years, during which they tried in vain to repeat a regular cycle, that they inaugurated their 532-year cycle, the beginning of which they set in 561/562.

Before going any further, a point must be clarified in the Armenian presentations concerning the origin of their era. They say that the Easter full moon that ended Andrew's cycle was on March 25. This was certainly not so on the table of André, whose 19-year lunar cycle was that of the reform of 353. This cycle began on April 13 and led with the game of epacts on March 26 for the 19th year: this one appears in the *-rpoz6c*, IV of the *Chronicon Paschale*. It was at the end of this year that the leap of the moon took place, which advanced the epact of one more unit, the following year, the first of a cycle. But the Armenians having adopted 25 March following the Aca conference (2), this date was necessarily to replace that of 26 March in the accounts of historians concerning the foundation of the era. It was only on that of April 6 that they quarreled with the Byzantines who had fully complied with the Alexandrian dates.

To fully understand and use the Armenian era, one must know how they measure the years.

The Armenian year consists of 365 days divided into 12 months, plus 5 epagomene days at the end of the year. We see that it is the same system as with the Egyptians. But, unlike these, the Armenians remained for a long time without receiving the leap reform, and their great era did not know the sixth epagomene every 4 years. Their year is thus a vague year, whose beginning in relation to the seasons and in relation to the Julian calendar advances every four years by one day. The beginning of this Armenian year is the IC¹ *navasart*. When the Armenian era was created after the final Passover of Andrew's canon (552), the I *navasart*, by the play of the vague years, fell on the II of July. It was this date, I I July 552, that opened the Armenian era. The 4th year of the era began in 556, the July 10; in 560, on July 9, and so on, every 4 years.

It emerges from this that the Armenian era cannot, because of these vague years, serve

(1) Guiragos is explicit about this. Other authors are less so. It would seem, according to Dulaurier's anonymous, that the era was created at the same time as the 532-year cycle, but that it was made to begin 9 years earlier. It is more likely that if the two had been created together, they would have been given the same beginning.

(2) See above, section VII.

of paschal cycle and that the Paschal cycle of 532 years is established on the Julian calendar, specific to computists and liturgists, who translated for each year the Paschal date into Armenian date.

This obligation, imposed by the use of the vague year, to resort to the concordance of the Roman calendar for their Easter and menologe, was an embarrassment for the Armenians. About a century after the foundation of the era, the Catholicos Anastasius wanted to suppress it by establishing a fixed calendar. For this he resorted to an Armenian scientist versed in computing, Ananias of Iraq, which we have already talked about at length above. The latter set to work and was able to complete his work. A new cycle of 532 years could be set for a fixed timetable. This attempt at correction took place, according to Samuel d'Ani, in the Eusebian Olympiad 361, **1, the 5th year of the government** of Hamazasb, patrice and curopalate of Armenia, the **2nd year of the pontificate** of Anastasius, 117th of the Armenian era (= 12 June 668-10 June 669) (1). The Paschal table of Ananias went from the year 828 according to the Alexandrians not included until the year 1360 (2). What can this enigmatic dating be according to the Alexandrians? One can only find an explanation by presenting an era based on the Paschal cycle of 532 of the Alexandrians aligned with their world era. The first year of the 532-year period in which Christian times begin, namely the year 172 BC, will have been taken as the starting point of the era. According to this starting point, the year 828 agrees with the year 656 AD. The Ananias cycle began in 829-657, 95 years after the beginning of the so-called Aetas cycle (incipit 562). It had no application because of the death of the catholicos Athanasius who was its promoter.

It was only four and a half centuries later, under the Catholicos Gregory III Pahlavouni (1131-1166), that the Armenians had their fixed calendar; the author was John the Deacon (3). This is what his reform consisted of.

John the Deacon intercalated every 4 years a suppletive epagomene corresponding to the bissextile, and placed it at the end of the 4th year of the tetraeterid, six months and nine days after the Roman bissextile, unlike the Alexandrians who placed it at the end of the 3rd year, six months before the Roman bissextile.

He made the year and therefore the era begin in the 11th of August by placing the 1st Navasart there as it was at the creation of the great era. The new era originates from a cycle of 532 years, not the one that was created in 562 in the 10th year of the great era, but from another that John the Deacon calculated from the foundation of it (552/553) and made run with it. In this way the era of John the Deacon is brought into harmony, unlike the Paschal cycle of Ananias, with the **Byzantine lunar computus** resulting from the reform of 353. In 553, in fact, begins the 12th protobyzantine lunar cycle: $553 - 344 = 209$ (19×11) (the first had begun in 344). The era of John the Deacon, 532 years later, similarly began with the beginning of lunar cycling, 1085 (in the first year of the era that opened in August 1084).

This small era of John the Deacon took place mainly in northern Armenia. It is rarely found in use among chroniclers, but it appears in ecclesiastical books and notations of works or manuscripts (see examples in Dulaurier).

We mention, for the record only, because it goes beyond our framework, the small era of Azaria Djoughaietsi (of Djoulfa). It is also a cycle of 532 years, which follows that of John the Deacon, completed in 1615. Azaria changed the names of the months he replaced with others borrowed from various sides, put the intercalary day of the leap year at the end of the last month as the 31st day,

(1) DULAURIER, 112.

(2) ANANIAS, *Traité sur la Pâque*, english translation of F.C. CONYBEARE, *BZ*, 6, 1897, 584.

(3) DULAURIER, 79-81, 112-115.

just before the ephemerals, and especially moved the beginning of the year that he fixed at the equinox, on March 21. His era thus began on 21 March 1617 (1). This era, created in Djoulfa, never had anything but a local job.

I did not think it necessary to mention in this chapter the so-called technical era of which E. Dulaurier speaks and which he fixes the beginning of on II July 553, one year after the so-called vulgar era which opens on II July 552. In examining Dulaurier's work, I have tried in vain to acknowledge its existence. The technical era would be, according to him, that of chronographs and computists, and the other, that of chroniclers and that of common use. However, the computists themselves do not make a distinction, assign to the first year of the era characters which resemble those of the year 552-553. Thus, when they say that the last year of Andrew's cycle has its Easter full moon on March 25, it is only appropriate for the year 552 (551-552). When they say that the first year of the 532-year cycle has its Passover to April 4 and connects to Andrew's canon, and that it was then the 10th year of the era, it means that the first year of the era was 552-553. When they say that the 532-year cycle was founded nine years after the beginning of the era, and that it was then the 2nd year of the Leap Olympiad, that is, of the tetraeterid, this 10th year can only be 561-562, and consequently, that the first was 552-553. They are computerists who speak like this and nowhere do they mention another technical era of their own.

What may have given rise to this distinction is undoubtedly the relationship that they themselves establish between their national era and their Christian era, which is not the same for all. Samuel d'Ani, for example, is two years ahead of our era; others are one year old (2); others have a Christian era corresponding to ours (3).

There are thus various ways or, if we want to call them that, various styles among Armenians in their account of the years of Christ compared to the years of their era, but not various styles of their era. It is in this sense that one must interpret the text of James of Crimea invoked by Dulaurier. According to this author, "James of Crimea perfectly distinguishes these two kinds of style from the Armenian era. *The beginning of our era, he says, is in 553 de J.-C. systematically, but differently depending on the calculation.* The author means that the supputation of computists, or technique, makes the Armenian era of 553 start from J.-C. and the historical or usual calculation from 552" (4). Rather, the opposite was expected, the calculation being the work of the computists rather than the vulgar. And that turns the testimony against the theory. We will therefore explain the text of James of Crimea in a different way. "Systematically" means by conforming the beginning of the year 553 of Christ to the system of the Armenian year beginning in the first navasart = II August, beginning of the era and beginning of the year fixed since John the Deacon. "Differently according to the calculation" means: strictly by taking as beginning of the year on the day of the birth of Christ, January 6 according to the Armenians.

Moreover, the explanation that the eminent armeist proposes of the origin of this double cycle stems from a data of a calendar attributed to John Gozer'n (XII century) (5), according to which the era was created by the Armenian council in the month of arats, the 6th month of the Armenian year, which gave the opportunity to some to begin the era at II July 552 and others at II July 553. But it is quite implausible that the council left undetermined the time when the era was to begin. The official creation of an era and the determination of the year and the day of its opening are essentially linked.

(1) DULAVRIER, 81, 115-117. The year 1617 is the real date, against '616 (Dulaurier): conclusion confirmed by the I.: P. Mécérian, consulted on this point.

(2) See various memorials in DULAURIER, 289, 298.

(3) *Ibid.*, 43.

(4) *Ibid.*, 155, note 161.

(5) *ibid.*, 54. 174-175.

Formulas

1° To find the year of the Christian era in which a year of the great Armenian era began, add to it 551 up to and including the year 769, and add 550 from 770. The year 769 begins on 1 January 1320; the year 770 begins on 31 December 1320. Examples:

430 arm.

981

830 arm. = 1380

To find the initial weekday of the Armenian year, divide the year by 7 and name the leftovers Thursday (1), Friday (2), Saturday (3), Sunday (4), Monday (5), Tuesday (6), Wednesday (7). E.g.: 650 arm.: 7 rest 6 = Tuesday, 1^{er} navasart.

2° To find the year of the Christian era in which a year of the early era of John the Deacon begins, add to it 1083. E.g.: 30 arm. John the Deacon = 1113.

THE ROMAN ERA THE KRONIKONI and. THE GLOBAL ERA OF GEORGIANS

THE ROMAN ERA

The era of the Romans, of which there is no mention among Byzantine authors, with the exception of a very tenuous allusion, which would remain in isolation an enigma, is attested to us by Armenian authors. They talk about it as a known thing. We have already met her at John the Deacon's house. Here, by the same author, is a more explicit text.

"The first year of the reign of Philip, Emperor of the Romans, is completed the thousandth year of the foundation of Rome, and from the second year of the reign of this prince, the initial point of an era that we call the era of the Romans was again fixed. From that time until the establishment of André's bicentenary cycle and the 95-year cycle, because these two cycles were founded in the same year, although they did not have the same author, 104 years ago (1). »

John the Deacon is confusing here. It is certainly in the logic of things that the reform of 353, accomplished at the end of the Anatolian cycle of 95 years, had to be completed by the inauguration of a new cycle of 95 years, and this is what John the Deacon tells us. This cycle obviously had to begin with the 1st cycle of 19 years new style, in 344, but John the Deacon, by symmetry, makes it begin with the bicentenary cycle of Andrew.

James of Crimea joins John the Deacon, and probably depends on it, also placing the millennium of Rome in the first year of Philip; he adds that the era that starts from there began in 249 AD (2).

Both authors are computists, to whom this era could be attributed as a theoretical calculation. But we also see it in chroniclers and in memorials.

Asolik of Taron also uses it to fix the time of the foundation of the Armenian era in the midst of other concordances: 14th year of Justinian, 24th of Chosrov, 304 of the Greeks, from the 7th year of emperor Philip, after 553 years since the birth of Jesus Christ (3).

The same author ends his work by dating it: "We have found that from Adam to us, 6,282 years have passed (a figure considered to be at fault), and since the Crucifixion and the Invigorating Passion, 972; following the era of the Greeks, there are since emperor Philip 757 years; and following our Armenian era, 454; which corresponds to the 30th year of Vasil emperor of the Greeks; to the 15th of Gakig, king of Greater Armenia (4). »

(1) DULAURIER, 48-49.

(2) *Ibid.*, 49.

(3) ASOLIK DE TAROT, trad. E. DULAURIER, 1883, p. 115.

(4) ASOLIK DE TAROT, t. II, trans. MACLER, p. 171; DULAURIER, 281.

We see that for Asolik the era of the Romans was called the era of the Greeks, that is to say the Byzantines.

Another example is that of Jean Catholicos, who uses it without any concordance. Recalling the martyrdom of Stephen nicknamed Gon (or Kouèn), he said: "After having endured long turns in confessing the name of Christ, he was crowned by the Father of Enlightenment and inscribed his name in the Book of Life. He died in the year 608 of the Roman era (i). »

It should be noted that in these examples from Asolik and John Catholicos the era takes place according to a continuous numeration, not in a Paschal cycle. If there is a cycle, it is a millennial cycle, outside the computing. But another text shows us that it was also practiced by the revolution of the 532-year cycle. In a copy of the *Compendium of Laws of Armenia* compiled in the year 1184, the following chronological notations are read:

"Our work was undertaken in the year of the great Armenian era 633, of the era that is called small cycle Ioi, of the era of the Romans 405, at a time when our national royalty no longer existed (2)."

The first notation, calculated rigorously, corresponds to: February 4, 1184-February 2, 1185, but it is probable, because of the accompaniment of the era of John the Deacon, that it was *calulée* like her, according to a cycle of fixed years and, consequently, designates the same course of time in the year.

The second notation, which counts according to the era of John the Deacon, designates the year from i i August 1184 to Io August 1185 (3).

The third can only join the previous ones on the condition that the era of the Romans indicated here is an era renewed after a first cycle of 532 years. The year 1184/1185 must correspond to 937 of the Romans (532 + 405).

The preliminary question is to determine what is the first year of this era of the Romans attached to the millennium of Rome.

This millennium has given rise to magnificent festivals mentioned by various historians, the memory of which has been perpetuated by many coins. Certainly, it is neither in the 2nd year of Philip, as John the Deacon and James of Crimea want, nor, as Asolik says, in the 7th, which was not reached, that these solemnities must be placed. The irrefragable testimony of numismatics places them under the consulate of the two Philips, emperors, Ille of the father and II^e of the son, that is to say in the year 248 of notre era, 5th of the reign of Philip father (4).

Not everything is solved by this. It is still necessary to know whether the secular games were celebrated during the millennium year or after its completion, and, moreover, how were counted the years of Rome, selon Varron or according to the Capitoline tables. On this last point, there remains a doubt, because both modes are represented until the IV^e century. On the first, the authors diverge or at least seem to diverge. I am talking about authors other than Capitoline and Eutrope, who simply say that the millennium of Rome was celebrated by Philip in his consulate and that of his son.

Eusebius says that under Philip the thousandth year of Rome was accomplished and gave rise to great festivities: he distributed them in deux Olympiads; they were therefore celebrated twice, probably at the beginning and at the end of the year, either millennia or post-millennial (5). The panegyric of Maximinus and Constantine, pronounced in 307, speaks of the state of affairs that had been established *millesimo anno post Urbem conditam* (6). For Orose, which places the accession of Philip in 997 *ab Urbe condita*, the thousandth year of the foundation of Rome ended after the third year of this prince and he emphasizes that this *natalis*

(s) *History of Armenia by Patriarch John VI called Catholicos*, chap. ZIV; if. J. SAINT-MARTIN, p.

117.

(2) DULAURIER, 192.

(3) ID., 113.

(4) COFIEN², t. V, 103 sq., 512 sq., 138, 146, 549, 163, 169.

(5) EUSÈBE, trans. SAINT JEROME, year 2262.

(6) *Panegyrici, VI (7)*, ed. GALLETIER, t. II, Paris, 1952, 1S.

was celebrated by a Christian emperor (1). According to this, the feasts were celebrated when the thousandth year of Rome was over, and as numismatics places them in 248, in the second joint consulate of the two Philips, the era employed by Orose is celle de Varron; but it should be noted that Philip's three years must have been counted from 1 January 998, when Philip Sr. took over the consulate of his accession. It is the same era that also observes the pagan author Aurelius Victor, who complains that the 100th year after the millennium, completed under the consulate of Philip, did not give rise to celebrates(2). The consulship of Flavius Philip was established in 348. So the millennium ended in 248. In 249, therefore, the second millennium began, according to this era. But Varron's era was not official: it was an era of scholar. The Capitoline era, which had been official to some extent, continued to be used. It can be seen in inscriptions of the second and IIIe centuries and even in authors as late as Solin and Macrobius (end of the IH century). The year 248 was necessary for the celebration, car the following year, the end of the millennium in the Capitoline era, would have been meaningless in view of the Varron era. Moreover, 248 could be suitable in the Capitoline era, as being the very year of the millennium. The year of celebration 248 could therefore be considered either as the year of the first of the second millennium or as that of the last of the first millennium, the second millennium then beginning in 249. This is the way of Cassiodorus. It cannot be explained otherwise that il declares the thousandth year of Rome completed under the consuls Aemilianus and Aquilinus and links to this consulate, in terms of the rest borrowed from Eusebius, the feasts given on this occasion (3). Cassiodorus could not unfoundedly link such an important event to names obscure to him. Comparing his testimony with that of Orose and Aurelius Victor, it follows that festivals were held, the main ones, under the second common consulate of the two Philips, en 248, the first millennium being completed and a second beginning according to the Varronian era, and then en 249, end of the first millennium and beginning of the second according to the Capitoline era.

Let us remember from all this that the year 248 could be considered as the end of the first millennium and 249 as beginning the second.

If we now turn to the concordances between the Armenian era and the era of the Romans in the Armenian texts cited above, we must recognize that nothing decisive can be drawn from them for the problem at stake, for the following two reasons: firstly because they do not indicate the monthly calendar, secondly because the Armenian year which serves here as a measure overlaps, roughly by half, over two Roman years. It is therefore not possible, according to these texts alone, to recognize the beginning of the Roman era.

As for the indications on the origin of this era by James of Crimea and John the Deacon, the precision that the former brings by placing in 249 AD the beginning of the era can only be appreciated by taking into account the way in which this auteur calculates the Christian era, which the state of my documentation does not allow me to establish. That of John the Deacon is more precise: because he puts a space of 104 years from the beginning of the Era of the Romans until the establishment of the canon of Andrew, he manifests that this era, for him, begins in 249 according to our era ($353 - 249 = 104$).

None of the authors, pagans and Christians, who relate the celebration of the millennium of Rome, mentions the establishment of an era of which it would be the starting point, and moreover there is no employment outside the Armenians. No one will therefore think of linking the creation of this era to the very time of the millennium. It was certainly imagined later. But when?

The reply must take account of the following conditions:

It must first be admitted that this era of the Romans was used in the first place by the

(1) °ROSE, VII, 20: ed. ZANGEMEISTER, 478.

(2) AURELIUS VICTOR, *De Caesaribus*, 28 : ed. PANCKOUKE, 250.

(3) *Chronicou*, PL, 69, 1237 AB.

Byzantines, since the Armenians could only know it from them. But as there is no trace of this job, it assumes that it lasted too little time to leave testimonies: it is from these data that we will have to determine the time of the creation of the era. But it must also be explained why the era was preserved among the Armenians, while it disappeared among those from whom they had received it. That is what we are going to try to clarify.

First of all, the time of the use of the Roman era by the Byzantines must have preceded the reign of Theodosius I¹. We remember that then the lunar cycle of 19 years, resulting from the reform of 353 and which was official, was supplanted by that of Alexandria which inaugurated a period of 95 years, just with the first consulate of Theodosius (380). We believe that the era of the Romans, of recent creation, had to be abandoned on this same occasion, especially if, as is very likely, what we have already said, this consulate of Theodosius were to inaugurate a number of years like that of the years of Diocletian. It is not by mere coincidence or analogy that we then place this abandonment, which would already be something, but it is by considering the intimate relationship of this era of the Romans with the lunar cycle itself that was downgraded. Indeed, it is exactly the space of 95 years, cycle then used before that of 532 years, which distances the two years 249 and 344, the starting point of the cycle reformed in 353. The year 249 is rigorously the year I of the second millennium of Rome following the capitoline mode; it is in any case the first after the holidays; and in the event that it is the Varronian mode that has prevailed, the proximity and to say the contiguity of the celebration will have seemed a sufficient foundation to link to the great memory the first year of the cycle of 95 years preceding the reform, year which was then counted as the first of the new era, the era of the Romans.

As we can see, the intimate connection between the cycle and the era was to mean that the abandonment of one would lead to the abandonment of the other.

I said above that no author, apart from the Armenians, mentioned this era of the Romans. Expressly and in the form of employment, that is for sure. However, who knows her cannot help but see a very clear allusion to this chronological means in the following text of the *Chronicon Paschale*, where the author calculates by reference points the time elapsed from the Passion to the 35th year of Justinian, during which he puts the completion of the cycle of 532 years of which he fixes the beginning at the last Passover of Christ. One of these eras is our era of the Romans. It is even the main one, the only one from which the numeration of the years goes up and down.

Aoyta.06.) *ercpx* - Cnoxx-roccv-rexusc,4, Ir,c)v v nspt MoucpX6' z'.. vtccu-7&)v dc-,z6 s' g-t-muq xcd ce?yroi.") (DtXUTC7:01) T013 i.ovviopoc xo (1):?.. I.. Turou vi.oij oc?yro;3,Aciziou zo:(. Fpc(7.t.o:vo.), xccc cc g',-.. (c)14 6<' 'OXI.y.Trct3or' oi.'nrep Tec *Chvcii*v-;-(') cO' Tc6spiou KOE.i.o-ccpoç, lryouv g*roç 66' '0Xup.. -rccrAo:-" Ev c7;;) y&yova.. v -'76 ni-10oc. TOU xup.oU -'r,g)v Xpt.G.T.oU, 10.E.t. zp6vov gTOJV XOCT,GY) bu?.. Te) e7(c).; Kopey-rotv-rivou zor.j P*ccicscXic,4, xce ii 7C p and YrY o sj.-.1-İ:)-i) BoXouutccvoi3 xOE1 'Avcotvoi2i, (I).

Referring to the consular splendor of the *Chronicon Paschale*, we see that it is the 4th year of Philip, not the 5th as here, which is equalled to the consulate of Decius and Gratianus (2), but this is due solely to the fact that the first year of the reign was not counted, but left to the previous emperor under whom it began; there is therefore no contradiction between the two passages.

The consulate indicated belongs to the year 250, but as it is marked with the 5th year of Philip (4th in the number), to the I I e indiction, which is in 248, and that this year is actually

(1) *Chronicon Paschale*, 686-687.

(2) *Ibid.*, 502.

the 5th year of Philippe, there can be no doubt that it is indeed the year 248 that the Chronist intended to designate, and that he took it for the first of his milestones in the supputation of the years of the great Paschal cycle.

Schwartz (1) is surprised, and Mentz (2) with him, that this 5th year of Philippe serves as a stage of calculation. It is an enigma for them. This is not one for us, to whom this date represents the famous millennium and the 95-year Easter cycle that was attached to it to make it the starting point of an era.

In the text we quoted, the 5th year of Philip, 248 AD, is the last of a first total, of 218 years, established going back from this year to the year of the Passion. The second total, of 65 years, obtained by descending from the 5th year of Philip to the 8th year of Constantin, is the first of the second millennium of Rome, or 249. As we have said, this year is at the same time the first of the 95-year cycle, developed, going back in time, from the cycle of reform of 353 ($344 - 95 = 249$), which is precisely that he of the Chronist.

It should be noted that in this period of 532 years that goes from the year of the Passion to the year 35 of Justinian, this 5th year of Philip constitutes the great break, the great division. It is like a dividing line: from there the calculation goes up and down: it goes up to the year of the Passion, and then goes down to the 8th year of Constantine, where was fixed the first indiction, a kind of relay or milestone, from where we continue until the 35th year of Justinian, last of the cycle. The importance thus given to the 5th year of Philip, the millennial year of Rome, and the fact that this date is connected to a cycle of 95 years which is precisely established on the lunar cycle used by the Chronist, make it impossible not to see in the text of the *Chronicon* that we have quoted an allusion to the era suspended from this millennium and that the Armenians call the era of the Romans or the Greeks.

This is the testimony of a Byzantine author. To summarize the results of this survey, we will say that, in view of the essential role played by the lunar cycles in the constitution of the eras, there can be no doubt that the year 249 was chosen for the establishment of this era, both and inseparably because it is the beginning of a cycle of 95 years calculated according to the reform of 353, and because it was related to the famous millennium occasion of the city of Rome.

It remains to be seen when and how this era could be established.

It is obvious that the very use of the Reformed cycle provides an *a quo* or *post quem terminus* (353) of the creation of the era in question, whose ephemeral existence is thus between 353 and 380. And I will not dare to place the institution at the very time of the reform. Let us remember that the 4th IV of the *Chronicon Paschale* places the years of its cycle in the years of Diocletian. I would gladly put, for my part, the appearance of the new era in the aftermath of Julian's death, in the framework of the Christian reaction against the paganism of this emperor. We have just recalled that the protobyzantine 4th IV marked the years of the cycle by the years of Diocletian, which served as the fundamental concordance of the lunar cycle alexandrin. This concordance suited Egypt, since it was at the origin of its cycle, it meant nothing to Constantinople, and it is natural that the Byzantines wanted to get rid of it and give themselves another harmonized with their own cycle. And it is also natural that this desire was felt more keenly after a reign that had renewed the effort attempted by Diocletian to annihilate the Christian religion, and revived as a result among Christians the aversion to the greatest persecutor. The same feeling that later led to the era of Martyrs in Egypt as the era of Diocletian, which could not be eliminated since it marked the origin of the cycle, meant that in Constantinople, where it was not linked to the cycle itself, there was a desire to replace it.

(1) Art. *Chronicon Paschale*, *RE*, III, 2470-2471.

(2) A. Ir.:NTz, *licitriège*, 12.

another that was matched to him (i). But which date to choose? Normally, it should have been the year 344, the beginning of the First Lunar Cycle of Constantinople, as 285 was the First Lunar Cycle of Alexandria. But such a date was colorless; the year 344 did not recall any event, did not mark any beginning of reign. We searched in the past, and we found out that counting a complete cycle of 95 years, then the great Paschal cycle, when touched on the millennium of Rome. However, this millennium, it was noticed that it had been celebrated by a prince who was said to have been the first Christian emperor. The Chronicle of Eusebius already describes Philip as follows: *primusque omnium ex Romanis imperatoribus christianus fuit* (2). This note undoubtedly belongs to Saint Jerome, but it only draws the conclusion of several words of Eusebius which suppose the conversion of this emperor and thus reflects an already old tradition. This celebration of the millennium of Rome by a Christian emperor before the conversion of the empire must have seemed a specially intended fact of God: no date could be better suited to proleptically inaugurate the lunar cycle intended to regulate the celebration of the greatest of festivals, the central festival of Christian worship, and to serve at the same time as a starting point for the continuous chronological numeration where the Easter dates would be located in the future. Because of the millennium from which it was suspended and the use made of it by the Byzantines, these Eastern Romans, the Armenians called it the era of the Romans, but sometimes also of the Greeks.

The creation of this era therefore seems to have taken place in 363/364. Less than 20 years later, the official adoption by the Eastern court of the Alexandrian cycle overshadowed the lunar cycle of Constantinople and thus dealt a fatal blow to the young Roman era, based on it. She did not have time to acclimatize, she disappeared among the Byzantines without leaving any traces other than the distant and veiled mention that we read in the *Chronicon Paschale*, but she had had time to pass among the Armenians, perhaps through the intermediary of Saint Basil of Caesarea, with whom they had quite close relations. And as the Armenians, who remained faithful to the canon of Andrew of Byzantium, did not receive the Alexandrian cycle, the era of the Romans survived at home with the cycle of Constantinople; they kept it even in the national era that they gave themselves in the following, and this explains that the examples of use that we find in their chronicles and in their memorials.

This is the era of the Romans. Begun in 249, the date assured by the concordant testimonies of *chronicon Paschale* and Armenian authors, it was to be used for the continuous numeration of the years in which the Easter moons were located, without limitation or renewal, because, at that time, the 532-year cycle had not yet been applied to this use. And it is under this continuous form that the era is practiced by Asolik and Jean Catholikos. Employment in the form of the 532-year cycle is later, and undoubtedly was suggested by the existence of the Armenian Easter table of 532 years created in 562.

THE KRONIKONI OF GEORGIANS

And indeed, although created for a continuous and indefinite numeration, it is quite natural that the Roman era, because it was based on the lunar cycle, was considered, when the 532-year cycle was known, as a development of this cycle, and natural therefore, that the arrival at the end of 532 years gave occasion to a new chronological starting point. This is what has been done for the chronology of Georgians that we are now going to deal with.

This chronology, in fact, derives directly from the Era of the Romans. There is no doubt that this era was introduced in Georgia at the same time as in Armenia, as both countries were the main countries of the

(i) It is known that it was a similar feeling which inspired Dionysius the Little when he replaced in the Paschal tables the years of Diocletian with the years of Christ.

(2) EUSEBIUS, trans. Saint JÉRÔME, year 2262. Cf. E. STEIN, art. Julius Philippus in *RE*, X, 768-769, where are collected the texts relating to this subject, either of Eusebius himself, or of authors dependent on him, from which results how much such information met with favor.

under the influence of the capital of the empire in terms of culture and the general problems of religious and cultural life, among which that of the celebration of the Passover, determined by the cycles, occupied a prominent place.

It is quite likely that the Georgians adopted Andrew's bicentenary cycle. It is not clear how they behaved at the end of this cycle. Presumably they shared the uncertainties of their neighbors. If they embraced their era, they had to shake it when they rallied to Byzantine orthodoxy. But they had no reason to abandon the lunar cycle that was common to them and that existed before that era, nor did they abandon the Era of the Romans based on that cycle. Quano of this era begun in 249 came at the end of a period of 532 years, they wanted, like their Armenian neighbors, to have their era too, which they inaugurated then. They made it consist of successive series of Easter periods of 5 to 32 years. The period is called *kronikoni* (from *zpovr,x6v*). The first *kronikoni* began in the year 781, according to all synchronisms. And this is a counter-test to establish that the earlier period began well in 249, date that we gave as the **beginning of the era of the Romans** (i). The second *kronikoni* began in 1313. Generally, dates marked in years of the *kronikoni* do not indicate what is the current *kronikoni* (2).

Another clear proof that this era of the Georgians is related to the cycle of 532 years begun before 249, in connection with the era of the Romans, is that the Georgian cycle of 19 years that begins with the Georgian era is precisely the same as the proto-Byzantine cycle described in the *Tpyo6ç IV*, unlike the Paschal moons of April 6 and March 26, abandoned in the meantime by the Byzantines for the Alexandrian dates of April 5 and March 25. Like the proto-byzantine lunar cycle, the **Georgian lunar cycle** begins with the epact number 30 and the Paschal moon of April 13. This state can be seen in the calendar of a treatise on the Georgian computing written before the year 950, and perhaps the calendar itself is older, because it is composed of 19-year cycles, the second of which ends in 818 (3). Later, the Georgians conformed to the Byzantine lunar cycle, having in the first year the figure of epacts I I and the Paschal moon on April 2, as appears in a treaty composed in 1233 (4). This Byzantine lunar cycle is one year behind the *kronikoni* and the Georgian world era. — See *the Georgian lunar cycle in the comparative table of pp. 54 and 55, col. XVII*.

Thus, it is absolutely proven that the period of the Georgians, the *kronikoni*, derives from the era of the Romans stopped after 532 years, which, in turn, is built on the proto-byzantine lunar cycle, the beginning of which was carried proleptically to the year following the celebration of the millennium of Rome (249).

The Georgians did not stop there. Following the example of the Byzantines and Alexandrians, they built their own world era. They took as a basis for their calculation the actual cycle of 532 years and counted, before the beginning of their era, 12 cycles of 532 years elapsed since the creation, namely 6384 (= 532 × 12). This gave a world era of 5,604 years. This era is 112 years ahead of the Alexandrian era, and 96 years ahead of the Byzantine era. It is already attested in the treatise of the Georgian computus of the tenth century that we have used above, and especially in the calendar that is attached to it and that stops at the year 6422 = 818 OF OUR era (5). We also count the sequence of cycles since the creation, so that the one that was the first in use was called *mie* (6).

(1) M. BROSSET, *Études de chronologie technique*, Saint-Petersburg, 1868, 10; 16-17; 40-41.

(2) Thus in the *Georgian Chronicle* published by M. BROSSET JEUNE, Paris, 1830.

(3) M. BROSSET, *Études...*, 17-20.

(4) ID., *ibid.*, 23, 54. In the *WacKouciu Calendar Treatise* of 1755, the Georgian epact *Ir* is maintained in front of the Greek epact 14: *ibid.*, 87.

(5) ID., *ibid.*, 19-20.

(6) ID., *ibid.*, 40-41.

In addition to these eras, the Georgians also used the Byzantine era or the Alexandrian era, depending on the influences received.

There is even a world era called Jerusalem, which is known to us only by the Georgian computing treaty of the tenth century (1). The concordance between the years of this era and the years of the Georgian world era marks a 420-year lead over the latter. It is therefore 6024 BCE. If we compare it with the Alexandrine era, we see that it precedes it by a whole cycle of 532 years. The first year of the *kronikoni* (= 781 AD) therefore equals 6385 CE, 6289 CE, 6273 OGD and 6805 CE *hierosolytaine*.

I did not find any information about the Christian era of the Georgians. The computing treatise of the tenth century dates the coming of Christ according to the year of the world 5501 of the Alexandrian era (2), which is equivalent to 5613 of the Georgians.

It is difficult to mark the beginning of the year in the establishment of the Georgian era. The tenth century computing treatise indicates the month of January (3), but perhaps it is simply limited to the calculation of computing. That of the half century gives this distinction: "Although the

September is regarded as the beginning of the year, however, as far as the calculations are concerned... it is January which forms the initial of the year (4). At that time, at least, it is the indictional Byzantine year that is the usual year. But, by ailleurs, the Georgian Chronicle edited by Brosset the Younger extends the year from January to the end of December, but it is recent (last quarter of the seventeenth century). It remains to be studied in the chronicles, the inscriptions, the notations of copyists, what was in this regard the use of the Georgians, both before and immediately after the creation of their era: field of research that remains open.

Formulas

To find the Christian year corresponding to a Georgian year, one must, if the latter is expressed in world years, subtract 6384; if it is expressed in *kronikoni* years, one must add 780, or 1312, depending on whether the date is in the first *kronikoni* or in the second.

(1) M. BROSSET, *ÉtlitesS...*, 17, 19-20.

(2) ID., *ibid.*, 18.

(3) ID., *ibid.*, II.

(4) ID., *ibid.*, 45.

conclusion

We have now come to the end of our investigation of the world eras, at least those that have gained wider notoriety and determined a stable mode of chronological notation. We witnessed their training and saw their relationship with each other. Here we will summarize the results achieved.

Given the mystical idea that marks the Savior's coming to earth in the sixth millennium, and especially to his milieu, and also given the chronology of the Passion that imposed its imprescriptible requirements (Friday and the time of the Jewish Passover), it is according to the lunar cycles that the world eras were constituted. It was necessary, by retrograde cyclical revolutions, to place at the creation of the world a first year of the cycle practiced, or to say better, the first year of the first cycle of the computing employed.

The world era of Hippolytus (5501 or 5503 BCE) is measured by the 112-year cycle. Most likely also, and this in the sense of our remarks, those of Clement of Alexandria and Eusebius of Caesarea are by the cycle of 8 years, but according to a different starting point. The era of Eusebius, in its current state, that is to say after the shift that we suppose, has been preserved in the West, without any connection with computing, thanks to the double authority of this historian and his translator Saint Jerome. The one we think of Clement of Alexandria, 5600, found a maintainer in Andrew of Byzantium (iv century) and an approver in an anonymous Armenian: these are the only traces that we find. That of Hippolytus seems not to have survived, but only the mystical principle of his Christian era. This principle is also that of Africanus. It will be religiously preserved, but applied on different scales according to the eras, or even shifted by a few years sous the thrust of the cycles.

Intended to supplant all other cycles is the 19-year lunar cycle transmitted by Eusebius as the Anatole of Laodicea. Its importance is crucial for the history of the eras employed by the Byzantines, because it is this number of 19 that conditioned their formation: it was necessary, from the first year of this cycle to such a concrete date, to go back, by a multiple of 19 years which observed the mysticism represented by the number 5500, to the corresponding first year of the cycle of creation and, by this, to obtain the age of the world.

Based on the Easter month that begins at the equinox, that is to say having as its first year that where the neomenia coincides with the equinox, then on March 22, and thus having a natural basis, the Cycle of Anatole leads to a world era that translates into the year 258, the inaugural year of the cycle, by $5758 - I - I = 5759$. This superadded unit represents the year without epacts when the moon, created with the sun, continued its course with it before starting its own, so that the first year of the world precedes by one unit the first year of the cycle. The era of the world thus obtained is: 5501 BCE. This is the one that Africanus was already observing.

This 19-year cycle was developed into a 95-year cycle (19×5), which reduced the Easter seats to the same monthly and weekly calendars. Starting in 258, the first of these cycles was to be completed in 352.

The 19-year-old Anatole cycle had to be updated to conform to the rise of the equinox on 21 March. This gave rise to two reforms: one in Alexandria around 303-304, and the other in Constantinople in 352/353. The first placed the **beginning of the** cycle in the neomenia of z^{er} thôth (August 29), the beginning of the calendar year, and the opening of the first cycle to ter thôth of 284/285, the first year of Diocletian, whose era, later called era of martyrs, was thus inaugurated; the second, operated by observing the principle of Anatole, carried the first year of the cycle 8 years back, from 353 to 345, which led to the rise of the corresponding year of the world. Hence the result that the year 345, which was in the Anatolian era of 5846, was now **announced** as 5854. The lunar cycle obtained here is the $xoc7A$ cycle starting with the first epacts, therefore one unit behind, as in Anatole, on the year of the world. To have a cycle working with the world era, we went up another unit, taking as the first year of the cycle the year without epacts: it was the $X.GCT$ cycle. Oéatv. The world era of this reform is 8 years stronger than that of Africanus and Anatole, i.e.: 5509 BCE, with beginning on 21 March. This is the first era of the Byzantines, the protobyzantine era. A 200-year-old Paschal table was drawn up according to the new cycle by Andrew of Byzantium. His practical goal made him begin in 353, which was the year in which the 95-year Anatolian cycle was to resume. But Andrew, according to the Armenians, did not admit, as we have said, this world era.

This reform was made under the authority of the Arian Emperor Constantius. The resulting cycle was deposited from its official character by the centenary Paschal table of Theophilus of Alexandria, which this archbishop had approved by the Orthodox emperor Theodosius I: **a table built after** the Alexandrian cycle. This change led to the unfavour of the era, which was based on the ousted cycle.

Soon, moreover, the Alexandrian cycle in turn gave birth to a world era whose beginning, by inclusion of the precyclical year, was: 5493 BCE. Panodorus, its author (around the year 400), annexed a Christian era: 5494. The defects that were noticed there, namely its anteriority to the mystical number of 5500 and the last Passover of Christ (*XIV lunae*) put on **March** 20 before the equinox, prevented this double era from being accredited. The system of Panodorus was replaced by that of his contemporary Annianos, who, by suppressing the precyclical year, obtained the world era = 5492 BC, the era commonly called Alexandrian era, and established the Christian era in the year 5501, in strict conformity with the mysticism of the number 5500, but in defiance of the true chronology of Christ, whose Passion was put in 5534, corresponding to the year 42 ad. The august event, whose essential synchronism had to necessarily be respected: Friday linked to a Jewish Passover, was in the earlier chronographs of the Orient, Anatole, Africanus, probably Eusebius (since it is the same year 3i), fixed on March 23. The first of them put it at a **XIII lunae**. The day of the Resurrection was March 25. In the Christian era of Annianos, these monthly dates were maintained, but March 23 was a *XV lunae*. The system of Annianos, fortified by the mystiques **parallel** established between the days of creation and those of the great evangelical events, became the "ecclesiastical chronology".

But under Justinian, as a result of the confusion that occurred among the Armenians when the bicentenary table of Andrew of Byzantium ended in 552, the lunar cycle of Constantinople was taken in general measures of reform, the final result of which was, of course, to definitively consecrate the Alexandrian dates of 5 April and 25 March, but also to remove the Alexandrian cycle from its **official** character. This brought attention back to its competitor, and thereby to the related world era, which had been supplanted by that of Alexandria. The cycle and era in question were the cycle $y_{cx} . - A$ Occv and the protobyzantine era. But a problem arose. It was that of installing in this era a chronology of Christ. The opportunity presented itself to bring it back to the true historical scale, which the Alexandrians had not cared about. The author of the *Chronicon Paschale* set to work. It began with the date of the Passion which condis-

all the others. He put it back in the year 31 Dionysian (5540 protobyzantin). It was an *XIII lunae*; he transformed it by a special calculation into *XIV lunae*, and opposed this date by relying on ancient authorities to the *XV lunae* of the Alexandrians. For other evangelical events, he felt obliged to respect the mystical parallels established with the days of the Genesiac week. The chronicon essay **must probably lie** between iron's reform under Justinian and the advent of Mauritius. His system of calculation applied to the Passover of the year 5540 (= 31) had to be criticized. Moreover, his years of the world had the disadvantage of not walking with the bissextile or with the indiction.

At least the Constantinople era was back in circulation. However, it was difficult for him to impose himself against that of Alexandria, which enjoyed a more than secular position and offered valuable advantages. There was in particular this practical advantage that it was in agreement with all cycles except the indiction, superior by only one unit, instead of that of Constantinople was in deviation of one unit with all cycles. But on the other hand, in this one, all the cycles, hearing the lunar and lunar cycles $.0(7.A)$ (Acnv, were in agreement with each other, so that it was enough to lower by one unity the era of the world to obtain a perfect system, where the era was aligned with all the cycles. And that's what we did. The Byzantine era was born. It is not known who is the author, but the oldest known témoin, and at the same time theorist, is a certain George, monk and priest, in a writing of 640/641.

As for the chronology of the life of Christ, on which the Chronist had stumbled, the solutions taken were diverse.

Some, such as the George we have just talked about, perhaps made cautious by the recklessness of their predecessor, maintained the system of Annianos by simply transposing the Alexandrian dates into the Byzantine years. This gave rise, by a misinterpretation of the Alexandrian cycle, to an era of 5516, 8 years higher than the Byzantine era, and 24 years higher than the Alexandrian era. These conformists or conservatives gradually disappeared, as a chronology of Christ adapted to the Byzantine era was established.

The others resumed the test of the *Chronicon Paschale*. Among them, and chronologically the first, it seems that it is necessary to count those whom Saint Maximus calls the "quintuplants and sextuplants", because of a special process used by them to determine what was the true age of the moon of the Easter seats in use, a process that resulted in transforming the *XIV lunae* of various seats into *XV lunae*, sometimes into *XVI*, and even, in a particular case, where the bissextile intervened, into *XVII lunae*. It happened so that in some years when the Easter seat was a Saturday, this Saturday *XIV lunae* became a *XV lunae*, and Friday *XIII lunae* became a *XIV lunae*. This was precisely the case of the Dionysian year 31, a year precisely outside the bissextile, which would have put Friday at the *XV lunae*. This result suggests that the quintuplants, like the Chronist, put the Passion of Christ in that same year, **also bringing back**, but by another process, the event to the *XIV lunae*.

The computus of the quintuplants succumbed to the blows of Saint Maximus. But the chronology of Christ was independent of it; and it was not on him that the Byzantine chronographs were based. There is no information as to when a Byzantine Christian era began. Presumably it was in the city century. We see in the Pseudo-Symeon Magister and George the Monk Continued (Part I), attached to an era of the world, a Christian era focused on 5500, but of a chronology so disordered that it is impossible to pass judgment on it. We do not have precise and intelligible information about a Byzantine Christian era until the tenth century onwards. Apart from the tenants of the mysticism of the "5500" which seem not to have posed the problem, there is agreement on the fundamental date of the Passion: in 5539 of the Byzantine era (31 Dionysian) but divergence on the date of birth, according to the length given to the public life of the Savior, and consequently on the numeration of the years of which this birth is the starting point.

The 19-year cycle was enough to create the previous world eras. For the formation of the new eras comes the solar cycle of 28 years, which, combined with the lunar cycle, produces a great Paschal cycle of 532 years, after which the Easter series returns to the same monthly and weekly calendars.

We listed 13 applications of this cycle, or 13 cycles of 532 years. Several, established solely for recurrences, have abandoned the starting point of the lunar cycles to be attached to a capital event, either ~~the Nativity of Christ or, preferably, his Passion (or Resurrection). Others, on the contrary, have~~ remained accorded to it: they are those that interest us here, and, among them, especially those who have given rise to eras of which jobs have remained.

The Alexandrian era provided cycles of 532 years, the first of which begins with it and of which each new cycle takes up the numeration of the years. The years of the cycles are called the "years of Grace (or Mercy)." This mode of chronology was used among copts and Ethiopians.

The Byzantine lunar cycle gave starting points for 532-year cycles to Armenians and Georgians.

We have seen that at the reform of 353, Andrew of Byzantium composed in the new cycle (zy.T';. OéGtv) a 200-year-old Easter table. It ended in 552. After a decade of confusion, the Armenians established in 562 a cycle of 532 years of which the 1st year was 561/562, but already they had inaugurated their national era on July 11, 552. Thus, this **first year of the Armenian era 552/553** was the 1st **year of a Constantinopolitan lunar cycle** Y.27,& UGLV. The era proceeded in vague years. After 532 years, John the Deacon built it in fixed years by starting the cycle again. The era begun in 552 also continued its numeration by taking the name of "great era", that of John the Deacon being the "small era".

As for the Georgians, here is the origin of their own chronology. Shortly after the reform of 353, following the death of Julian the Apostate, the era of the Romans (also known as the Greeks) was established in Constantinople, starting from 249, the year taken as the first of the second millennium of Rome. This year coincided, counting in the style of the 353 reform, with the beginning of the 95-year cycle immediately prior to the first year of the ZIX cycle.^{7&} Oéatv of this reform (= 344). This era did not have time to acclimatize to Constantinople, because of the official adoption of the Alexandrian cycle by Theodosius¹ in 380, but it continued to be used among the Armenians who still used Andrew's bicentenary table, and no doubt also among their Georgian neighbors. In the process of development, there was a tendency to consider it as a 532-year cycle. When this number of years was over, the Georgians stopped the Roman era and, starting the numeration of the years again, made the great Paschal cycle their usual means of chronology and for this it called *kronikoni* (from *zpovtz6v*); the numbering of the years was taken over in the next cycle. At the *kronikoni*, they annexed a world era measured on him: it was 96 years ahead of the Byzantine era, and **112 years ahead of the Alexandrian era**. The 1 *kronikoni* begins in 781 AD, 6385AD. The Georgian era is coming: 5604 BCE.

With the *kronikoni* and the Georgian era ends the development of eras derived from the Paschal cycle of 19 years.

PART TWO

TIME FRAMES

TIME MEASUREMENTS

The measurement of time is taken from three natural phenomena: the alternation of day and night, the return of the seasons, the cycle of the phases of the moon. They gave rise, following observations and calculations, to three fundamental units of time: the average or civil solar day, the *vuz0-iespov*; the solar or tropical year, the return of the seasons being linked with the return of the sun to the same point of its course through the constellations of the zodiac; the lunation or lunar month.

The average duration of the lunation is 29.530588 days (29 days 12 h 44 min 2.8 s); the average duration of the solar year is 365.2422 days (365 d 5 h 49 min approximately). Practically, the lunation is counted as having 29 1/2 days, and the solar year as having 365 1/4 years. This may be sufficient and is even necessary for the near calculation. But the small fractions more or less being accumulated, end up after many years constituting a significant gap which requires an adjustment either empirical or systematic.

In order to organize human activity, either economically or religiously, it was necessary to distinguish the days within the year, and to distinguish them, to operate in the year divisions or sections where the days fit into their rank. Many systems have been created for this purpose, which have been given the name calendars. The lunar month is a natural division, and there is no doubt that *it was* first used; but since its duration is not exactly related to that of the solar year, which has 12 lunar months plus 11 days, 12 solar months have also been instituted, between which **the number of days of the solar year has been distributed in a different way depending on the country.**

The lack of an exact relationship between day and solar year, between day and lunar month, between lunar month and solar month, combined with the fact that the beginning of the year and also of the month, if it is a solar month, can be taken indifferently, explains the variety and the large number of calendars.

Calendars are clustered into three categories.

1) *The lunar calendars* that count the days according to the course of the moon without regard to the course of the sun. They have alternative butts of 30 and 29 days; and 12 months make a lunar year of 354 days. Such calendars seem to have been used primitively in all nations, judging by the very name of the month (= moon) in Indo-European languages.

The lunar year is not a natural unit of time: no phenomenon marks its limits. Its duration simply represents the whole number of months closest to the duration of the season cycle. Also the lunar calendar in its purest form, that is to say with an interrupted sequence of 12 lunar months, is not compatible with economic life, especially agricultural. The intercalation of an additional month approximately every three years is necessary. It is the authority of the sovereign who

originally regulated this operation, as seen in the tablets of Hammorabi (1). The purely lunar calendar is only possible on the strictly religious level, and only if no religious festival is related to the solar cycle: this is the Muslim calendar.

2) *The lunisolar calendars*, which have a periodic fitting of the lunar calendar during the sun. This connection shall take place by means of an interlayer month. The years that thus have a thirteenth month are called embolismic. The lunisolar calendar is therefore based on the lunar months of 30 and 29 days; it includes common lunar years of 12 months, and embolismic 13 months, the number of which has been fixed differently according to the cycles (see lunar cycles). The Jewish calendar is a lunisolar calendar and also the Christians Paschal calendars, although the lunations are indicated by the dates of the solar calendar.

3) *The solar calendars*, which take into account only the course of the sun and divide the year into 12 months, more probably by analogy with the 12 lunar months which it contains and exceeds, than because of the 12 constellations through which the star operates its course in the year; for it is a fact that the measurement of the solar months is alien to these phases of solar movement, alien to any natural norm, and that is why we see so much variety, both for the starting point of the months and for their duration.

Solar calendars, which are an organization of the solar year by means of calculation, could only have originated in countries of advanced civilization. We see them gradually replacing the lunisolar calendars whose unequal years (some of 12, others of 13 months) make the use very inconvenient.

Another unit of time, of pure institution, has been added to the aforementioned units: day, month, year. This is the week, a series of 7 days renewed in an uninterrupted way. It comes to us from the Hebrews, from whom Christians and Muslims have received it.

(i) GINZEL, I, 131.

I

TIME IN THE YEAR

i. THE DAY

Beginning of the day. — In the evaluation of the day, the *vv-z0i;pzpov*, nature does not impose any starting point, but it offers the choice to four possibilities or amenities, namely, the sunrise and its opposite, the *coucher of the sun*; the middle of the day, when the shadow is the smallest, and its opposite, the middle of the night. These four limitations were used. The Hebrews, the ancient Greeks (historical period) began from day to night; likewise Muslims, thati still do. The Chaldeans, Egyptians, Syrians and Romans began it in the morning; the latter, however, began at midnight when it came to sacral functions and legal affairs. The starting point in the middle of the day was, in the testimony of Censorin (i), employed in Umbria. It is also the starting point chosen by Ptolemy for his calculations, followed in this by most astronomers.

Among the Byzantine Greeks, as in general among the peoples where the Julian *calen drier* was introduced, the day began in the morning.

Division of the day. — It was first of all the natural or luminous day, the day which regulates human activity, which was thought of dividing. It was divided into 12 equal parts, and this division was also applied at night. We thus had 12 hours during the day and 12 hours at night. But since day and night varied in length depending on the season, the hours followed these variations: daytime hours were longer in summer, shorter in winter, and night hours longer in winter and shorter in summer. These *neal* hours were called *xactptxoci*, *temporal*, *inaequales*. Equal hours were achieved only at the equinoxes. This is why, in the following, the name of equinox hours *Ccrv.spcvoci*, *aequinoxiales*) was used to characterize the division of *vuz042.pov* into equal hours.

The solar day of unequal 12 hours, among the Romans, was, according to Censorin (2), divided into four main sections: *mane*, *ad meridiem*, *de meridie*, *suprema*; and at night in four vigils (*vigiliae*). This division was also that of the Jews in the time of Christ, judging by the clues provided by the Gospels and the Acts of the Apostles (Mt, 14:25; 5,3-6; Act. Ap., 2, 15; 3, 1; 1o, 3, 3o). The diurnal division was also observed by Christians who applied it to the distribution of public prayers. These were given the name of the time marked to them. There was thus third, sexte,

(1) CENSORIN, *De Die Natali*, 23.

(2) CENSORIN, *De Die Natali*, 24.

none, vespers. But, from the fifth century, it was added premium, at the beginning, and complies, at the end of the day. The correspondence with the solar day was as follows:

Hora prima, 4th pct 7th pc:.) -7.-(;, at sunrise,
 Hora tertia, towards the middle of the day,
 Hora sexta, middle of the day,
 Hora nona, 4th pct. èvec-r7), mid-afternoon,
 Vespera, .-cr-rçz',ptvri'), 1 hour before sunset,
 Completorium, e1.7CUCr7tV0V, after sunset.

The following designations are found in the West for the four parts of the night: 1. *Caput vigiliarum* or *conticinium*; 2. *Vigilia media* or *timeless*; 3. *Gallicinium* or *gallicantus*; 4. *Matutinum* (1). Similar designations are lacking in the East, except for *matutinum* which has as its corresponding 6p0pog.

The subdivisions of unequal hours in common usage were usually half an hour and a quarter of an hour. But computists, chronologists, writing ecclesiastical vain present a greater hierarchy of measures. The most common division among them is the following (1):

hora = 4 puncta — 40 momenta = 480 unciae = 21,600 atomi
I punctum — 10 momenta — 120 unciae = 5,400 atomi
I momentum -- 12 unciae = 540 atomi
I uncia = 45 atomi

Similar information is not found among the Byzantines for unequal hours, but also for equal hours.

As for the division of the *vuz0iespov* into equinoxial or equal hours, it stems from the need which astronomers had, in establishing their calculations, for a common measure for all days of the year. The Chaldeans seem to have been the first to divide the *vuz0iip.spov* into parts Equal. These parts were 12 in number and called *kas-pu* or *kas-bud* (double hour), apparently because the number of 24 was not a sub-multiple of 60, the center of their system of calculation, says for this sexagesimal. Each *kas-pu* was divided into 30 worth four of our minutes. The day was therefore 360 *u*, as much as degrees in circumference. That was the usual division. But the Babylonian astronomers, for the convenience of calculation, divided the *vuz04.spov* into six parts, each of 60 degrees, one degree worth 60 minutes, one minute worth 60 seconds. We also see in them the division of the day directly into 60 degrees or sections, with the subsequent divisions of 60 minutes, then of 60 seconds (2). This division of the day into 6th parts is found among byzantine computists. They use it, as we shall see, in the computus of the lunar cycle. They distribute these 6 parts; the whole day which is missing from the cycle to be equivalent to the total duration of the lunations which fill it and so that the *saltus lunae* can be carried out which allows the cycle to start again on the same date of the solar year.

The division of the *vuz04.E.. -pov* in 12 equal parts, in use among Babylonian astronomers, is also practiced by Christian computists, such as Saint Epiphanius (3) and Dionysius the Little (4). These parts, which they also call hours, are equivalent to two of our hours. Other computer specialists are taking on the

(1) GLNZEL, III, 97.

(2) GLNZEL, I, 122.

(3) S. EPIPHANE, *A di. ha croces*, 70, 13.

(4) KRI: SCH, *Shi die/t II*,

division into 24 equal hours. Thus Bede (1) in the West, and in the East, Psellos and the anonymous A of Karntaler. But the latter two differ in the subdivisions of the hour.

Psellos (2)	Anonymous A of Karntaler (3)
hour — 5 Xsn e	1 hour — 5 c-rtyp.Æ.0
1 = 4 aTtyp.ocī.	1 cr7typ.-; = 2 X7c•côc,
— 12 Po7ai	1)v1rc6v= 15 li.oi.pac
	1 [J.6i:p oc = 8
	1 Pa-ci, = 12 bUT.,sg
	'c'vU! Zi.. c, = 6o eTotlot

As we can see, every computist could have a system of division of the day, which it is good to be warned about. (See other divergences in P. Tannery, *Sur les subdivisions de l'heure dans l'antiquité*, *RA*, 3rd series, t. 26, 1895, 359-364.)

2. THE WEEK

The week is an institution that comes to us from the Hebrews. It consisted of a series of seven days, the seventh of which, the Sabbath, was a day of rest. The Church, born within the Synagogue, received this inheritance, but it soon changed the day of rest which, instead of the seventh day, was the first, marked by the resurrection of Christ. We already have testimonies of this at the beginning of the second century.

The designation of the days was first made in the Judaic way by the ordinal names: 1st of the week (*prima sabbati*), 2nd of the week..., until the 5th; the 6th was the "preparation", *notpaaxzwj*, and the 7th, the Sabbath. But the first day of the week took the name of *xup caxii*, day of the Lord, *Sunday* (Apoc., I, 10; Didache, 14). It is common in the II century.

Another name of the days was in use in Egypt, taking the 7 planets: Saturn, Jupiter, Mars, Sun (taken for a planet), Venus, Mercury, Moon. This order, which was estimated the order decreasesant of their distances to the earth, was not that of the days. The names of the planets were given to the days in the following way. Each of the 24 hours of the day was placed under the name of a planet, following the order indicated above. The day took its name from the planet that dominated its first hour. The first hour of the first day was governed by Saturn, who thus gave his name to the first day; the last hour of the first day arrived under the sign of Venus, which brought the **firsthour of the second day under the sign of theSun**, which thus gave its name to the second day, etc., so that the order of the days of the week became the following: day of Saturn, day of the Sun, day of the Moon, day of Mars, day of Mercury, day ofJupiter, day of Venus. These names of days were known in Rome as early as Jesus Christ. They were also used by Christians, and their use became so widespread that it passed through the nations under the influence of Rome and still survives, except forSaturdays and Sundays, in almost all Romance languages. In The Norse languages, Sunday itself has retained the name of the so-called planet (Sonntag, Zondag, Sundan, Sôndaq). But the Germans changed the name of Mercury to *Mittag* (mid-week day). The English and Dutch kept the day of

(1) BEDA, *De temporunt ratione*, 39: Ch. W. JONES, 252-253.

(2) G. REDL, *La chronologie appliquée de Michel Psellos*, *Byz.*, 5, 1929, p. 257.

(3) A. KARNTHALER, *Die chronologischen Abhandlungen des Laurent. Gr. Plut. 57: Cod 42, 1J4-162*, *BNJ*, 10, 1933, 5.

Saturn (Saturday, Zaturdag — Saturday). The names of the planets were names of deities. They were referred to as *oroï*, a designation that has changed to the days of the week. And the use of the word in this sense remained among Byzantine computists.

In the Greek Christian East, the days of the week were referred to, for Sunday and Saturday, most often by the words *zupvy.x.i.*, and *ar;. 66ce:ov*, but also by their rank of order *Trpc'iyry* and and every other day by their rank of order.

The Slavs, who also use the numeral order, have a special system. Sunday is the day "without work", rest, *nedéla*. Monday is the day after the day without work: *ponedèlnik*. Tuesday is the 2nd day (i.e. after the day without travail: *vtornik*; Wednesday is called the "middle" (of the week): *sreda*; Thursday is the 4th day after the day of rest: *iertverg*; Friday is the 5th day: *pjatok*; Saturday retained the Hebrew name: *subbota*.

Muslims have kept the same order of days of the week as Jews and Christians, and they refer to them, except for the last two, by their rank of order: the first day, the second day, etc. Friday, the first day of the Hegira, is the day of meeting at the mosque; because of this, it is called "the day of the meeting": *jaum el douma*. Saturday has retained the Hebrew name: *jaum el Sabt*.

3. THE MONTHS. THE VARIOUS CALENDARS

It is about the months that the greatest diversity among peoples appears. It affects either the place of the first month in the year, which is the number of days in each month.

THE EGYPTIAN CALENDAR

Originally was used a lunar calendar of 12 mes alternately of 29 and 30 days. It was replaced at a very high antiquity (fifth millennium BC) by a solar calendar which, perhaps, because of the convenience of the sexagesimal system, had at first only 360 days shared in 12 months of 30 jours each, but soon received the addition of five days, called by the Greeks "ephemeral" (added).

With the formation of Egyptian mythology, the months until then designated probably by an ordinal number, received the names of the gods to whom they were consecrated. These names were preserved by Christians.

The order of the months, with their names, designated here in the Greek form, was and remained as follows: 1. OWO or 0(7)0. 2. dhccopi. or (*Da.c7xpt*). 3. 'A.04 4. Xoi.a.x. or Xoicicx. 5. Tubi or. Ti56c. 6. Mczip or

Mszsip. 7. cIpoc! Isvca. 8. creapp.ouOi or (Dy.pli.oMt. 9. FI otyAv. Io. 11cdivi or IYO. {Jvc. 'Entyi. or 'Ercip or 'Enzip or T-iciat or 'ErcsiTc. 12. Mayswpi or Me... esopi or ME... awp-. — 'Enc.cy6[J.E... va.t.

In Egypt, where all subsistence depends on the alluvium of the Nile, the agricultural year consists of three seasons: flooding, seeding and growth, harvesting. In the fifth millennium BC. J.-C., the flood began with the heliacal rising of Sirius (in Gyptian EiAtç) towards the summer solstice. It is to this day that was fixed the 1st thôth, beginning of the year. But the Egyptians soon realized that the coincidence between the 1st Thôth and the rising of Sirius was not constant. After 4 years, the phenomenon took place on the 2nd, after 8 years on the 3rd, and so on. Every four years, it receded by one day, or to put it better, the 1st Thôth advanced by one day. The Egyptians thus had a moving or vague year, and a fixed, sothiac year, the first being that of the calendar, the other having no other articulation than that of the seasons.

The gradual advance of the 1st Thôth brought back its coincidence with the Heliacal rising of Sirius after 1461 vague years, equalling 1460 Sothiac years. It was probably then that the Egyptians were able to

evaluate the solar year at 365 days 1,¹⁴ and perhaps get the idea of the cycle or sothiac period of 1 460 years. In any case, the observation they made did not lead them in any way to change their timetable. They kept their vague year, no doubt by the force of tradition, but probably also driven by a certain religious consideration which made them see every day of their calendar visited each in turn by the first appearance of Sirius and sanctified by the feasts in the honor of Isis which accompanied them.

Egyptologists do not agree on the time when the Egyptians conceived the Sothiac period. What can be said is that it is very likely that they had theoretical knowledge of it, that is to say by calculation (365 x 4 = 1460), when Ptolemy Évergète (247-222 BC) undertook to agree the calendar with the astral phenomenon. His decree, called canopus (in Canopus was the temple where the decree was engraved), carried in 238 BC. J.-C., prescribed to add a 6th epagomene every 4 years and fixed the beginning of the year at the heliacal rising of Sirius, which was then at the 1er Payni (July 19 Julian) (1). The reform was not well received and the vague years were returned to the beginning of the next reign. It was retaken under Augustus, and the beginning was fixed in the year 30 BC. The 1^{er} thôth, the 1st of the traditional year, was then on August 31 Julian. In fact, the 1st thôth was set on August 3, preceding it, by immediate application of the reform, with a 6th epagomene. And so it was every four years, the other three years, so-called common years, starting on August 29. The first year of the reform was also the first year of the era of Augustus. The intercalation of a 6th epagomene is done immediately before the Egyptian year which contains in its course the Roman bissextile.

The new system, applied immediately in official acts, gradually penetrated into practice and eventually became widespread. The old usage persisted simultaneously until the fourth century AD. For the transposition into the Christian era of the dates on which the vague year is used, one can consult, among others, the *Hilfstafern* of Kubitschek (*Grundriss der antiken Zeitrechnung*, 224-226) which leads to the year 395 AD.

Since the Reformation of Augustus, the beginning of the Egyptian year, 1st thôth, has remained invariably fixed on August 29 (August 3rd in the years following the intercalary day). The Egyptian names of the months have been preserved, as we have said, by the Christians. They are slightly distorted in the Coptic language, and quite disfigured in the Arabic language. The Ethiopians, receiving from Alexandria the Christian religion, also received its ecclesiastical calendar, but kept the names of the last month, adding the Pagomaen (epagomenes). Julian dates in parentheses are for the years following the intercalary day.

	Egyptian names	Coptic names	Arabic	names Ethiopian names
29 (30) August	1. Thôth.	Thot.	Tût.	Maschierem.
28 (29) Sept.	1. Phaôphi.	Paopi.	Babeh.	Techemti.
28 (29) Oct.	1. Athyr.	Athor.	Hatûr.	Hedâr.
27 (28) Nov.	1. Choïak.	Koiak.	Kijhak.	Tahasas.
27 (28) Dec.	1. Tybi.	Tobi.	Tûbeh.	Teri.
26 (27) Jan.	1. Mechir.	Mechir.	Amshir.	Jecatit.
25 (26) Feb.	1. Phamenôth.	Phamenot.	Barmâhat.	Megabit.
March 27	1. Pharmouthi.	Pharmuti.	Barmûdeh.	Miazâ.
April 26	1. Pashôn.	Pachons.	Bashnas.	Ghembot.
May 26	1. Payni.	Paoni.	Baûneh.	Senè.
June 25	1. Epiphi.	Epip.	Abib.	Hamlè.
July 25	1. Mesorè.	Mesori.	Mesri.	Nehasie.
24-28 (29) August	Epagoinenai.	Piabotenkagi.	Abûgomen.	Pagomaen.

(1) PIERRET, *Le décret bilingue de Canope*, Paris, 1881.

At the time of the Empire, the Egyptian months had received the following honorary names, which are known by the ostraka:

1. Thôth	<i>Sebastos.</i>	0. Pachôn	<i>Germanikeios</i> (also found
2. Phaôphi			<i>Theogenaios</i>).
3. Athyr	<i>Neos Sebastos</i> (Tiberius).	10. Payni	<i>Soterios</i> (also found <i>Dru-</i>
4. Choyak	<i>Hadrianos.</i>		<i>sieus</i>).
5. Tybi			Epiphi = <i>Domitianos</i> .
6. Mechir		12. Mesorè	= <i>Kaisarios</i> (we also find <i>Sebas-</i>
7. Phamenôth	<i>Neroneios.</i>		<i>tos Eusebios</i>).
8. Pharmouthi	<i>Neroneios Sebastos</i>		

On these names, see KUBITSCHKE, *Grundriss*, 152, where references can be found.

THE ATTIC CALENDAR

The ancient Greeks used a lunisolar calendar. For the intercalation of the additional months, they established cycles, that of 8 years, then that of 19 years (see lunar cycles). The names of the months varied greatly from region to region. It is only useful for us to indicate the Attic names. The correspondence shown here with the Julian months is an approximation. The actual correspondence with the Julian calendar is diverse according to the cycles. (See various applications and interpretations in Ginzel, II, 426-453.)

1. 'Ex27.op.6chci,r)	July.	7. Pcy,-,;,";))	January.
2. 1"lvxycc'rvtc'ûv	August.	8. 'Av0scrrr;ptc.;))	February
3. Bor,8pop.teûv	September.	9. 'E),2?-160),Lc./	March.
4.	October.	10. lloymixtcûv	April.
9. iNlcei).y.y.7.7-;ptcov	November.	i 1. .0D:pyr.),ceov	May.
10. lloast8seuv	December.	12. Extpoyoptc'ov	June.

In the embolismic years, the additional month was after Poseideon and was called Poseideon II (8z.. 1'yrsop.r; or 11')a'rz.poc;). It took the name '2Uptchvic'ûv in honor of emperor Hadrian. This is a testimony that the lunisolar calendar was still in use in the second century AD. As for saying that it persisted towards the end of the fifth century, at the death of the philosopher Proclus (485), a hypothesis of Paul Tannery, **I do not think it** is plausible, except only in the small group of pagans still subsisting, who, for civil life, followed the common calendar, and for worship, their own calendar.

The Greeks divided their months into three decades: icrecti.F.. voç, urw lacro,'; or pOcvcr)v. For the numbering of days in the decades, which varied, (see GINZEL 319-330).

On the lunisolar calendar developed by Plethon for the philosophico-religious cult of which he dreamed, see the very erudite memoir of Milton V. Anastos, Pletho's calendar and liturgy, *Dumbarton Oaks Papers*, No. 4, 1948, 185-269.

THE MACEDONIAN CALENDAR

The Macedonians used a lunisolar calendar of 12 months, which were alternately 30 and 29 days, with intercalation of about one additional month every three years. Their

year began in autumn. The names of the months were as follows (the correspondence to the Julian month is approximate):

1. z'toç	October.	7. 'A prEilialOg	April.
2. 'Ar.E.-X?,ccioç	November.	8. Axatog	May.
3. A1)&)vDtitog	December.	9. Unv,sp.oç or li v'r,p.og	June.
4. IfspiTcoç	January.	10. Aiiog	July.
5. 3!) a-rpoç	February.	11. i the op7txtog	August.
6. Exv0t.z6r, or Emek,j)ç	March.	12. 'l'rEpgET.E.'7U;,:0 _	September.

There is no information on where the additional month was inserted in the embolic years, nor on how these were determined.

When Macedonia, conquered by Rome, finally, after a slow adaptation, byseeing the Roman (and Julian) calendar, and thus, the use of the solar year, the Macedonian year thus transformed nevertheless retained its beginning of the year in autumn, but it now had a fixed place, which helped to determine the use of a propre era(see below). This beginning corresponds to October 15 julian.

After alexander's conquest of Egypt and the founding of the Lagid dynasty, the lunsolar calendar was introduced to that country. He could not impose himself there. The official documentsbear the two dates, the Macedonian date and the Egyptian date. The two years could not be reconciled; at least efforts were made to establish a concordance between the months. Despite the relatively large number of dual-date documents that have reached us, itis not yet possible to get a precise idea of the rules or practice according to which it was carried out (1).

Similarly, after Alexander's conquest, the calendar and names of the Macedonian months spread to Asia Minor andSrie. Malalas indicates that Seleucus Nikator made a decree to impose in Syria the names of Macedonian months (2) (probably in official acts). An inscription from the year 66 BC (Phrygia) which mentions the intercalary month proves that at this epoque the lunsolar calendar was still used. But, after the expansion of the Roman calendar, especially Julian,the solar year was-gradually introduced. We have few testimonies: that of Galenos of Pergamon (Ist century AD) shows us the transformationaccomplished. It marks the beginning of four months, two at the equinoxes: Dios (September 24) and Artemisios (March 25) and two at the solstices: Peritios (December 25) and Lôos (June 24). This shows that the year began on September 24, or better on September 2,3 (3).

There was no consistency across all regions affecting the beginning of the year or the length of months. A precious document — preserved in three manuscripts, in Florence, Leiden and the Vatican, the third recently known thanks to Kubitschek (4) — designated sous the name of Hemerologion Florentinum, presents, together with the Roman calendar, a list of 16 calendars of provinces or cities of Asia Minor and Syria, indicating with the names of the months the number of days of each month. The cities and countries are the following:Rome, Alexandria, Antioch of Syria, Tyre, Province of Arabia, Sidon, Heliopolis, Lycia, Asia and Pamphylia, Crete, Cyprus, Bithynia, Cappadocia, Gaza, Ascalon, Seleucia (5).

(1) GINZEL, III, 8-17.

(2) MALALAS, VIII, ed. Bonn, 202.

(3) In accordance with the decree of Augustus, see below, p. 170.

(4) *Mediceus XXVIII* 28; *Leidens. Gr.* 78; *Vaticanus Gr.* 1291. — KUBITSCHKEK, *Die Kalenderbilcher von Florent'* Rom und Ieyden (*Denkschriften der Kais. Akad. der Wiss. In! Vien, Philos. Hist. Klasse*, 57 B, 3 Abhandl., 1915); GINZEL, III, 18-35.

(5) In the presentation of these calendars, we basically use GINZEL, III, 17-35, adopting a more systematic order and using data that have since appeared.

THE CALENDARS OF ASIA MINOR AND THE ISLANDS

1. *Caleendars of Asia and Pamphylia*

These calendars, apart from the names, only have a difference for the last two months.

Asia (ms. Flor.) (ancient Ionian names from 3 to 12) Asia, Pamphylia (ms. Vat.); Ephesus (ms. Flor.)

1. Kaisarios	24 Sep. 30 days	Dios (vat. mark as Gzi3at(G1-i;) Sep. 23 and 24.)
	Oct. 31 —	Apellaios
2. Tiberios	24 Nov 31	Audynaioi
3. Apatourios	24 Dec. 30 —	Peritios
4. Poseidaôn	25 Jan. 29 —	Dystros
5. Lenaioi	24 Feb. 30 —	Xanthikos
6. Hierosebastos	22 March 31 —	Artemisios
7. Artemisios	24 April 30 —	Desios (Daisios)
8. Euangelios	24 May 31 —	Panemos
9. Stratonikos	24 June 31 —	Lôos
10. Hekatombaioi	24 July. 31	Goripaios: July 25, 30 days
11. Anteos	25 August 30 —	Hyperberetaioi : 24 August 31 days
12. Laodikios	25	

We already see in these calendars the mark of the imperial cult. This character was going to be strengthened. The Asian calendar received in fact at the time of Augustus, around the year 9 BC. J.-C., a reform that is known to us in detail by a titulus of Priene (1). The first day of the year was postponed to the *dies natalis* of Augustus, the ninth day before the calends of October (= September 23) and all the beginnings of the month began on the ninth day before the Roman calends. In addition, the name of the first month Dios, was replaced by Ky.î:G.cx.p. The result of the reform was that the Asian months had the same duration as the Roman months, except in leap years when, the bissext falling in the month of Xanthikos, it had 32 days instead of 31.

1. Kaisar (- Dios)	23 seven. 31 Days	7. Artemisios	24 March 30 days
2. Apellaios	24 Oct. 30 —	8. Daisios	23 April 31 —
3. Audynaioi	23 Nov. 31 —	9. Panemos	24 May 30
4. Peritios	24 Dec. 31 —	10. Lôos	23 June 31
5. Dystros	24 Jan. 28 —	11. Goripaios	24 July. 31
6. Xanthikos ..	21 Feb. 31 (32)	12. Hyperberetaioi	24 August 30

In the following, a nomenclature was adopted by order numbers: Tr.p(1-coc" &:... &1-,zpoç, etc. The oldest examples date back to the time of Commode and are found in inscriptions indicated by V. Chapot (2).

2. *The calendars of Bithynia, Crete and Paphos*

These calendars are quite similar to the reformed Asian calendar and begin like him with the *dies natalis* of Augustus. The first two differ only in the last two months, and the last one differs for the same months and in addition by two other months, the sixth and the seventh.

(1) WILAMOWITZ41OLLENDORF, Die Einführung des Asianischen Kalenders, *Mitteilungen d. trais. deutsch. Archiitol. Institutes, Athens. A bt.*, t. 24, 1899, P. 275-293; V. CHAPOT, *La province romaine proconsulaire d'Asie*, Paris, 1904, p. 390-391; GRUEL, III, 20, n. I.

(2) See CHAPOT, *op. cit.*, 392, n. 7. This author indicates the method which led to this change of designation: "In a region subject to the same central administration, such as the great province of Asia, an early attempt had been made to establish a nomenclature which was both convenient and did not offend any local sensitivity, and by using figures, this dual aim was easily achieved" (*Ibid.*, in text).

In the Hemerologion of Florence, the calendar of Paphos is called "cyprium"; but the same name being given to that of Salamis by Saint Epiphanes, we see that the two calendars shared the big island.

			Bithynia Crete	Paphos (I)
1. Heraios	23 Sep 31	Days	Thesmophorios	Aphrodisios
2. Hermaios	24 Oct 30	—	Hermaios	Apogonikos or Apollo(ios) (cod. Vat.)
3. Metrôos	23 Nov 31	—	Imanios	Ainikos (Aineios)
4. Dionysios	24 Dec. 31	—	Metarchios	Iulos (Ioulios) (2)
5. Heraklaïos	24 Jan. 28 21	—	Agyeios	Kaisarios
6. Dios	Feb. 31 24	—	Dioskorios	Sebastos: Feb. 21, 3rd day
7. Bendidaïos	Mar 30	—	Theodosios	Autokratorikos: March 23, 31 days
8. Strategios (?)	23 April 31	—	Pontios	Demarchexousios
9. Periepios	24 May 30	—	Hyakinthios I-	Plethypatos or Pleisthypatos
10. Areios	June 23 31	—	Irperberetaios	Archiereus
11. Aphrodisios	July 24 30	—	Nekysios	Hestios or Hestiaios
12. Demetrios	23 August	—	Basílios	Rhomaïos or Lôos

The above calendar of Paphos was established between the years 9 and 6 BC (3).

3. Lycia's calendar

The calendar of Lycia has the following form in the Hemerologion of Florence:

1. Dios	1 Jan. 31 days	7. Artemisios	2 July 30 days
2. Lenaïos	1 Feb. 29 —	8. Daisios	1 Aug 31 —
3. Audynaïos	2 March 30 —	9. Panemos	1 Sept. 30 —
4. Peritios	1 April 31	10. Lôos	1 oct. 31 —
5. Dystros	2 May 30 —	11. Gorpiaios	Nov. 30 —
6. Xanthikos	1 June 31 —	12. Hyperberetaios	1 Dec. 31 —

4. The Cappadocia calendar

The Cappadocia calendar, known by the Hemerologion of Florence, is a solar calendar in the manner of the Egyptians: 12 months of 30 days with epagomenes. It came through the Persians who had adopted it at the time of their rule in Egypt; scholars have noted the kinship of the names of the months with the names of the Persian months. We put in brackets the readings of Kubitschek, according to the Vat.

1. Lytanos (Artana)	12 Dec. 30 days	2. Myar (Mithri)	10 June 30 days
2. Artëys (Arteyst)	11 Jan. 30	3. Apomylë (Apom.) . .	10 Juill. 30
3. Adraostata (Aroatata)	10 Feb. 30	4. Athra (Athra)	9 August 30
4. Teirei (Tirei)	12 March	10. Dathou (Dathousa)	8 Sept. 30
5. Amarpata (Armotata)	11 30	Osman (Osmana)	Oct. 8, 30
6. Xanthios (Xantheris)	11 April	12. Sonda (Sondara)	Nov. 7, 30
	30 May	Epagomenes	7 Dec. 5
	30		

Saint Gregory of Nazianze (letter 90) names the month Acy.Ocik-a., but without providing any term of rapprochement (PG, 37, 217 A).

(1) Prior to this calendar, Paphos observed the following, which was made known by A. V. DOMASZEWSKI, *4 Mandlungen zur römische Religion*, Leipzig, 1909, 235 sq. and KENNETH Scorr, Greek and Roman honorific months. *Yale Classical Studies*, II, New Haven, 1931, 207 sq.

1. Sebastos	2 October	5. Yulaïos	2 February	9. Agkisaïos	2 June
2. Agrippaïos	2 November	6. Nérônaïos	2 March	10. Romaïos	2 July
3. Libaïos	2 December	7. Drousaïos	2 April	11. Aineadaïos	2 August
4. Octavios	2 January	8. Aphrodisios	2 May	12. Kapetôlios	2 September

Kenneth Scott dates this calendar to the year 15 BC.

(2) The forms "Aineios" and "Ioulios" are restored by KENNETH Scorr, *art. cit.*, 214.

(3) E. KORNEMANN, *Nachtri.igliches zum "Doppelprinzipat" in Eiç t.i.Viilr rizupi.k)voq Aciti.r.pou*, Athens, 1935, 224.

SYRIA'S CALENDARS

We can classify the calendars of Syria into two main categories: those where the Alexandrian influence appears, and those that are related to the Julian calendar.

A) *Calendars of Alexandrian character*

They are those of countries close to Alexandria or having commercial relations with it.

(a) *Gaza and Ascalon have the same calendar and month names*, but these are distributed differently.

Gaza	Ascalon	Start	
i. Dios.	Hyperberetaios.	Oct. 28	30 days
2. Apellaaios.	Dios.	Nov. 27	30 —
3. Audynaaios.	Apellaaios.	Dec. 27	30 —
4. Peritios.	Audynaaios.	Jan. 26	30
5. Dystros.	Peritios.	Feb. 25	30
6. Xanthikos.	Dystros.	27 March	30
7. Artemisios.	Xanthikos.	26 April	30
8. Daisios.	Artemisios.	26 May	3 ⁰
9. Panemos.	Daisios.	25 June	30 —
Ro. Lôos.	Panemos.	July 25	30
	5 Epagomenai	24 August	5
ii. Gorpiaios.	Lôos.	29 August	30 —
12. Hyperberetaios.	Gorpiaios.	28 Sep.	30 —

The months with their duration and their beginning are identical to those of the Alexandrians. The only difference is in the beginning of the year, two months later. The Gaza calendar is used in *The Life of Porphyry* by Deacon Mark and in many inscriptions up to the century view.

(b) *Salamis of Cyprus*. — This calendar has the same month names as that of Alexandria, but with interversions. In addition, the beginning of the first month, whose name is not identified, is marked on September 4, probably because this beginning of the month and year was traditional before the introduction of the Egyptian calendar. The order of the months is not known, except for the place of Choiak, Mesoria and the ephemerals. For the others, there are two series. We indicate them according to G. de Jerphanion (1), who considers the first to be more probable.

Month			Starts at
I (Phaôphi?)		Athyr?)	30 days 4 September
— II (Athyr?)		Tybi?)	30 — 4 October
— III	Choiak		30 — 3 November
— IV (Tybi?)		Mechir?)	30 — 3 December
— V (Mechir?)		Phamenôth?)	30 — 2 January
— VI (Phamenôth?)		Pharmouthi?)	30 — 1 February
— VII (Pharmouthi?)		Pachôn?)	30 — 3 March
— VIII (Pachôn?)		Payni?)	30 — 2 April
— IX (Payni?)		Epiphi?)	30 — 2 May
— X	Mesoria		30 I June
— XI (Epiphi?)		Thôth?)	30 — 1 July
— XII (Thôth?)		Phaophi?)	30 — 31 July
	Epagomenes		5 — 30 August

G. de Jerphanion points out, moreover, that several of these month names have been replaced by entirely different names.

(1) G. DE JERPHANION, Observations sur le calendrier de Salamine de Chypre à l'époque chrétienne, *L'antiquité classique*, 1, 1932, 9-24.

This calendar, absent from the Hemerologion of Florence, is quoted by Saint Epiphanius (*Haer.*, LI, 24) and by Alexander of Cyprus (vile century) (*AASS*, Jan. II, 446) with concordances of dates that have made it possible to reconstitute it. It is used in inscriptions until life! century; but most often the months are denoted by an ordinal number. G. de Jerphanion explained in a very plausible way the date of September 4 as the beginning of this calendar.

(c) *Arabs (Bostra, Damascus, Nabatene)*. — The Arabs switched to the Solar calendar of Alexandrian character after the creation of the Roman province of Arabia by Trajan in 105. The month names in the Hemerologion of Florence are Macedonian names, but the Nabataean inscriptions prove that Semitic names were also used. The beginning of the year is at the main equinox (22 March); the ephemes are logically placed after the 12 months.

Macedonian names			Nabataean names	
1. Xanthikos	22 March	30 days	nisan	
2. Artemisios	21 April	30	Ijar	
3. Daisios	21 May	30	Siwan	
4. Panemos	20 June	3 ⁰		
5. Lôos	20 July	30	ab	
6. Gorpaios	19 August	30	Elul	
7. Hyperberetaios	18 seven.	30	Tishri	
8. Dios	18 Oct.	30		
9. Apellaios	17 Nov.	3 ⁰	Kislev	
10. Audynaïos	17 Dec.	3 ⁰	Tebet	
11. Peritios	16 Jan.	30	Shebat	
12. Dystros	15 Feb.	3 ⁰	Adar	
Epagomenai	17 March	5		

Clermont-Ganneau recognized this calendar in an inscription of Khalasa (ancient Elect) dated 494 (where he sees the era of Gaza) and bearing indication of epagomenes (*Rec. d'arch. orient.*, VII, 122-127).

Saint Epiphane (*Adv. Haer.*, LI, 24) gives two **month names** xourA ". Apo'.6Dtç that are not found anywhere else: 'AXEc'op. and 'AyocX0oc6asi0; by the equivalences with the Julian months, they correspond to Audynaïos and Dios above.

N.B. — It may have been thought in the past that Palmyra used this same calendar, but an inscription bearing the mention Avorpou st, t6oXtp.ou proves that the Palmyreans had preserved the ancient lunisolar calendar of the Seleucids (Fr. Cumont, *Fouilles de Doura-Europos* (1922-1923), Paris, 1926, 347-350:386).

(d) *Tyre*. — For the Tyre calendar, the Hemerologion of Florence gives the following indications:

1. Hyperberetaios	19 Oct.	30 days	7. Xanthikos.....	April 18, 31 days
2. Dios	18 Nov.	30 —	8. Artemisios	19 May 31 —
3. Apellaios	18 Dec.	30	9. Daisios	19 June 31 —
4. Audynaïos	17 Jan.	3 ⁰	10 Panemos	20 Jlliii. 31 -
5. Peritios	Feb. 16	30	11 Lôos	20 August 30 —
6. Dystros	March	31	12. Gorpaios	19 Sept. 30 —

It is seen that the ephemes were distributed in the five months preceding the month of Lôos, whose beginning is closest to that of thôth. It is likely that the 6th epolag-lead was to be placed at the end of Peritios as the 31st day, so as to be close to the Roman bissextile and at the same time not to interrupt the series of months having the same number of days. It results from

according to a mosaic of the church of St. Christopher in Kabr Hiram, not far from Tyre (576 AD) that the beginning of the year had previously been brought to the ier Dios (Nov. 18) (1).

This calendar is found in the inscriptions until the century life. It is also found in conciliar documents of the fifth and life centuries (Mansi, VII, 197; VIII, 1083).

B) Julian-character calendars

The distribution of days and months is the same one of the Julian calendar. Only the names and the rank of the months differ.

(a) *Antioch*. — The calendar of Antioch is called *hellenicum* in the Hemerologion of Florence. Saint Epiphany also calls it zoczi "Ear_iva.r, and again xvrec El'Jpouç di.OUV "EXX•r_ivocç (*Adv. Haer.*, LI, 24).

Here we attach to the Macedonian names the corresponding Syriac names, used by Syrian writers.

i. Hyperberetaios	— October	Tishri I.	7. Xanthikos	.. = April	= Nisan.
2. Dios	..... = November	— Tishri II.	8. Artemisios	.. — May	Ijar.
3. Apellaios	.. = December	- Kanun I.	9. Daisios	..... "June"	Haziran.
4. Audynaïos	... = January	- Kanun II.	10. Panemos	..... July	= Tammuz.
5. Peritios	..... — February	Shebat.	11. Lôos	..... — August	- Ab.
6. Dystros	..... — March	Adar.	12. Gorpaios	= September	- Elul.

This calendar is the only one that has survived of all the particular calendars. It is he who is seen in use by Eusebius (*PG*, 20, 1449 A, 1457-1520). From the IV century, it is the official calendar of the Patriarchate of Antioch avec use of the names of months, either Greek or Syriac, depending on the language of the documents. Arab writers used Arabic names, very similar to Syriac names.

b) *Seleucia of Piraeus and Sidon*. — The calendars of Seleucia and Sidon transmitted by the Hemerologion of Florence-Leiden-Vatican (the first is not in the Florence manuscript) have their months modelled on the Julian calendar, but the month that begins the year is uncertain. It is likely that for Seleucia, close to Antioch, it was Koronios, by conjecture Gorpaios, corresponding to October, while for Sidon it was Dios, corresponding to January, Dios being the first month in various calendars. The names of the months are Macedonian for Sidon; and for Seleucia, two names are surely Macedonian, four others perhaps also under distorted graphs. We give the list of Kubitschek from the Rome manuscript by putting in brackets the conjectural restitutionss made previously. Kubitschek starts his list in January.

SELEUCIA

Aphy (Audynaïos)	.....	January.	Nenealios	.....	July.
Itonios (Dionysios)	.....	February.	Adonis	.....	August.
Anthisterios	.....	March.	Apellaios	.....	September.
Artemisios	.....	April.	Koronios (Gorpaios)	.....	October.
Artemisios	.....	May.	Pantheios (Panemos)	.....	November.
Herakleios	.....	June.	Sandis (in Xanthikos)	.....	December.

The old conjectures for Audynaïos and Gorpaios seem to have to be retained (2).

(1) GINZEL, III, 30, which reports kubitschek's conclusions.

(2) G. DE JERPHANION, *art. cil.*, 13.

Sidon

- | | |
|--------------------------------|------------------------------------|
| 1. Dios— January. | 7. Artemisios July. |
| 2. Apellaios - February. | 8. Daisios - August. |
| 3. Audynaïos = Mars. | 9. Panemos - September. |
| 4. Peritios = April. | 10. Lôos - October. |
| 5. Dystros = May. | 11. Gorpaios November. |
| 6. Xanthikos June. | 12. Hyperberetaios December. |

(c) *Heliopolis*. — The calendar of Heliopolis (Balbeck), according to the Hemerologion of Florence, had the following form, without it being possible to say which month the year began. It seems, however, that Ab, starting on 23 September, should be retained for the first month. Several month names are corrupted.

Ag	Nov 22	31 days	Neisan	24 May	31 days
Thisrin	23 Dec.	30 —	Iar	24 June	30 —
Gelôn	22 Jan	30	Ezer	24 July	30
Chanoun	21 Feb	31 —	Thamiza	23 August	31
Sobath	24 March	30	ab	23 Sept.	30 —
Adar	23 April	31	I Ioul	23 Oct.	30

N.B. —

From about the fifth century, the Byzantine calendar gradually supplanted the local calendars in Syria: some, however, remained until Arab domination. From the middle of the sixth century, there were only three calendars in Syria: the Islamic calendar, the Byzantine calendar and the Antioch calendar.

ROMAN, JULIAN, BYZANTINE CALENDARS

A) *The Pre-Jewish Roman calendar*

The primitive calendar of Rome, said of Romulus, had only 10 months of 31 and 30 days, in total 304 days. Under Numa, two more months were added at the end of the year, January and February. The months formed this sequence: March, April, May, June, quintilis, sextilis, September, October, November, December, January, February. Four were 31 days old: March, May, quintilis, October; seven were 29 days old: April, June, sextilis, September, November, December, January; the last one, February, was 28 days old. In total 355 days. Year too short compared to the course of the sun. It was therefore decided to add every two years towards the end of the year (after 23 February) a short month of 22 or 23 days alternately (the so-called *mercedonius month*). That was not enough. There was still a delay of three days every four years and after 30 years, of 22 days 1,12, one month *mercedonius*. The pontiffs finally had the task of settling the intercalation of the additional month. The arbitrariness with which they are being subjected only increased confusion and made reform necessary. It was undertaken by Caesar who called on the Alexandrian astronomer Sosigenes.

B) *The Julian calendar*

The reform retained the 12 months with the same names, but in the following, quintilis and sextilis were replaced by julius and augustus respectively. The length of the months was changed and became the one we still have today. In addition, a day was to be added every fourth year in February. Finally, the beginning of the calendar year was extended to 1 January.

The Julian calendar came into use in the year 45 BC. J.-C., which was leap. (The previous year, 46, was a year of 15 months or 445 days: the year of confusion.) Although the reform was badly applied; the intercalations which were to be made in years 1, 5, 9... were made in years 1, 4, 7..., until

the year 37, when Augustus, to correct the error, decided to delete the bissextes of 41, 45, 49. The intercalation was resumed in the year 53, which is the year 8 AD, and was continued since, regularly, until the Gregorian reform (1582 AD).

In the designation of days, Caesar retained the old usage. On the first day of the month are the *kalendae*. In the middle of the month are the *idus*, namely the 15 in the four old months of 31 days, the 13 in the others. The 9th day before the ides is called *nonae*, namely the 7 in the four old months of 31 days, the 5 in the others. The days are counted according to the term to come, and this term enters the account: III *idus martias* is march 13 (ides the 15th). The intercalation of the additional day every four years is done by doubling the *dies VI Kal. martias* (24 February), hence the names "bissexte" and "leap year". We will find the table of the Roman months with their division by calends, nones, ides, in our III^e Partie.

The Julian calendar immediately spread to the West without hindrance. In the East, where cities and nations had their own calendars, he could only impose himself in public acts, but several local calendars came close to it. This Julian calendar, in its entirety, with its ides, nones and calends, was used in the Eastern Roman Empire until the time of Justinian. In the literature of the first centuries (i-iv) A.D., Julian dates are quite often indicated in agreement with those of other calendars.

C) The Byzantine calendar

This calendar differs from the Roman calendar, whose names it takes the names of months, only by the beginning of the year, placed on September 1st, and the designation of the days in the month, made by means of the ordinal number. Such a designation already appears in the patristic period (Saint Epiphane, *Adv. Haer.*, LI, 27; Saint Basil of Caesarea, Letter 100, *PG*, 32, 505; Julian the Apostate, lettre 50 = 108, *Bidez*, p. 108). The Byzantine calendar coexisted in Syria and Egypt with local calendars, preserved in private use. After the loss of these regions in the VII^e century, the Byzantine calendar was the only one used throughout the Empire.

This calendar passed to the Slavic nations Christianized by Byzantium.

BYZANTINE CALENDARS AND RENAISSANCE CALENDARS WITH ATTIC MONTH NAMES (I)

By archaic mania, Pachymer took pleasure in replacing the Roman names of the months with the ancient Attic names. He seized the list of Tzetzes in his commentary on Hesiod, and like him, replaced two month names, Thargelion and Metageitnion, with names borrowed from other Greek calendars, Lenaion and Kronion. The order of the months is quite different from that of the Attic calendar. As for the correspondence with the Roman months, Pachymer simply equalled the first month of his list, Hekatombaion, with the month of January, and so on. There is no need to say that this is the beginning of a theoretical year, and that the indictional year — it could not have been otherwise — always remained, for our author, the unit of measurement of its chronology. The example of Pachymère does not seem to have had much influence. More of it was the treatise of Theodore Gazes or Gaza on the Attic months. He advocated an order of months, which is very different from that of Pachymère but although it represents exactly the old order. Like Pachymère, he made the Attic months coincide rigorously with the Roman months. But at least he knew

(i) Paul TANNERY, Les noms de mois attiques chez les Byzantines, *Revue archéologique*, 3^e série, 9, 1887, 23-36; 2nd ed., *Mémoires scientifiques*, t. 4, 223-239.

that the first, Hekatombaion, began in the summer season, and that is why he identifies it with the month of June, and leaves from there to identify the others. The pamphlet of Theodore of Gaza, composed *ex projesso* by a renowned scholar, quickly became authoritative. Written in 1470, he knew the presses in 1495 and, until 1550, he had no less than six other editions (1). What interests us here is that many scholars began to date their correspondence by the Attic months indicated by this author. "This" began before the first edition (2) and continued throughout the following century (3). We even see taken up by these humanists the way of the ancient Greeks to mark the monthly calendars by means of the division of the month into decades; however, this aussi is indicated by Gazès, and one is not likely to be mistaken in saying that it was from him that they learned it. And it is very likely that the copyists, who in subscriptions of manuscripts of the fifteenth century, use the names of Attic months, are in the same dependence.

There may, however, be exceptions to this point, and the reason for this. There is a list of menologs published by H. Estienne in his *Thesaurus linguae graecae* after an old manuscript of his own (*in Lexico quondam meo veteri*), different from that of Gazès. It reproduces the names and true order of the Attic months by indicating the respective synonymies of Kronios and Lenaion for Hekatombaion and Poseideon. The correspondence with the Roman months is made from the idea of Hekatombaion, first Attic month, with September, first Byzantine month. It is possible that such a list was used by copyists and that is why it had to be mentioned.

We are therefore in the presence of three different systems of use of the Attic months by Greek authors or copyists of the low period. We give here a synoptic view, according to Paul Tannery (*art. cit.*).

Roman months	menologists	Pachymeric	Theodore Gazès
1. J a n u a r y	5. Memakterion.	1. Hekatombaion	8. Gamelion.
2. February	6. Poseideon.	2. Lenaion.	9. Elaphebolion.
3. March	7. Gamelion.	Kronion.	10. Mounychion.
4. April	8. Anthesterion.	4. Boedromion.	1. Thargelion.
5. May	9. Elaphebolion	5. Pyanepsion.	12. Skirophorion.
6. June	10. Mounychion.	6. Maimakterion.	1. Hekatombaion.
7. July	1. Thargelion. 12.	7. Anthesterion.	2. Metageitnion.
8. August	Skirophorion.	8. Poseideon.	3. Boedromion.
9. September	1. Hekatombaion.	9. Gamelion.	4. Maimakterion.
10. October	2. Metageitnion.	10. Elaphebolion.	5. Pyanepsion.
11. November	3. Boedromion.	11. Mounychion.	6. Anthesterion.
		12. Skirophorion.	7. Poseideon.

To be complete on this subject, let us point out a Byzantine list of Attic months, where the order of the months is even different than in these three systems. It can be found, edited and commented by Voltz, in *BZ*, 4, 1895, 547-560.

THE JEWISH CALENDAR

The Jewish calendar is a lunisolar calendar of 12 months alternately of 30 and 29 days, with one month intercalary approximately every three years. The designation of months varied. It was made initially by names, then by their serial number, and finally new names were

(1) FABRICIUS, Bibi. *graeca*, 9, 194; ed. Harles, ro, 392.

(2) See letters of Adramyttenus, Janus Lascaris, Sergius Stissus, in L. LEGRAND, *Cent dix lettres de François ;nielle;*, Paris, 1892.

(3) Large number of examples in LAMÉ, *Deliciae eruditorum*, t. 7, 9, 15. See also E. LEGRAND, *Lettres de Mélétius Pigas*, Yaris, 1902. The year accompanying these notations in Attic months is most often that of the Dionysian era.

employees, who date from the captivity of Babylon. These are the ones that the Jews still use today.

Scholars do not agree on the beginning of the year among the ancient Jews, some holding for spring, others for autumn. The evidence given by both sides indicates that there must have been variation in this respect (1). The current usage that places the beginning of the year in the month of Tiri, towards the autumn equinox, probably dates back to the second century BC, under the domination of the Seleucids, whose lunosolar (Macedonian) calendar had its first month at this time of the year.

The intercalation of the additional month was originally performed empirically according to the state of the crops. At the time of Jésus-Christ, the Jews did not yet have a cycle that regulated this operation. In the first quarter of the third century, Africanus attributed to them the use of the 8-year cycle (2). In the second half of the same century or at the beginning of the IVe, they adopted the 19-year cycle, already in use among Eastern Christians.

Here are the names of the months of the Jewish calendar with the names of the Macedonian months that the historian Josephus gives them as correspondents (3):

1. Tishri	- Hyperberetaios	7. Nisan	Xanthikos
2. Marcheswan	- = Dios	8. Ijar	Artemisios
3. Kislev	Apellaios	9. Siwan	Daisios
4. Tebet	- Audynaïos	10. Tammuz	Panemos
5. Shebat	- Peritios	11. ab	- Lôos
6. Adar	Dystros	12. Elul	= Gorpaios

THE PERSIAN CALENDAR

In the fifth century BC. J.-C., the Persians used a solar calendar in the manner of the Egyptians that is to say that their year was divided into 12 months of 30 days each, to which were added 5 epogone days. It was a vague year. However, in the testimony of various Arab authors, they resorted, in order to remedy the gap that this system entailed in the long run and to maintain the agreement with the seasons, to the intercalation of an 13th month every 120 years. These authorities are late and it is more likely that the operation, if it were to take place, would be carried out in a completely empirical and therefore irregular manner. In any case, the intercalary month does not exist in the era of Iezdegerd (632 AD), and no document shows it for the earlier eras of the Arsacids and Sassanids.

Concerning the epagomenes of the Iezdegerd calendar, it is necessary to take into account the use of the authors. The oldest keep its natural and primitive place after the last month, but very early, in the first centuries of Islam, we see the ephemerals stored after the eighth month, and it is so now.

In the following table, which makes the sum of the days, are marked both ways.

1. Ferwerdîn	30 days	8. Agan	240 days	240
2. Ardebehesht	60	Epagomenes	245	
3. Khordâd	90 —	9. Ader		275
4. Tir	120 -	10. Dei		305

5. Mordâd	150		Bahmen	335	33 ^o
6. Scharîr	180	—	12. Asfendârmed	365	—
7. Mihr	210	-	Endergâhâ	(Epagomenes)	27

- (1) See testimonies on this subject in Grxzl:L, II, 68-6^o.
(2) *PG, Io*, 84 AB.
(3) GINZEL, *I. C.*, 68.

The days of the months are indicated not by numbers, but by names, the same, repeated for each month; the epagomenes have other names (see the list of all these names in Ginzel, I, 281, 287, or in Neugebauer, p. 35, table 24 A).

Under the Seljuk sultan An Djellâleddin Melik Sha, there was a reform of the calendar that established the fixed year in 441 AH, 448 of Iezdegerd (= 1079 AD) with beginning at the equinox, on March 15. This year it was the 19th Ferverdîn; it was made the *i er*.

THE ARMENIAN CALENDAR

The Armenians probably received around the fifth century BC. J.-C. of their masters the Persians, their solar calendar of 12 months of 30 days with 5 days epagomenes. It was a vague year. They kept their months, which were the most important:

1. Nayasart.	4. Trè.	7. Mahegan.	10. Mareri.
2. Hori.	5. Kalots.	8. Areg.	Margats.
3. Sahmi.	6. Arats.	9. Ahegan.	12. Hrotits.
Aveliats: 5 days			

The Armenians also used the Julian calendar with its month names. The Armenian form of these names seems to indicate that they received them directly from Rome without the intermediary of Byzantium, and consequently that the use goes back quite high, probably soon after they came into close contact with the Roman power. Later, after their conversion to Christianity, they needed this calendar for the ecclesiastical year. But they always kept their own calendar for common use.

Here are the names of the Julian calendar in their Armenian form:

Hunvar Januarius	Majis - - Maius	Sebdemper . . - September
Phedervar. Februarius	Hounis Junius	Hogdemper October
Mard — Martius	Houlis Julius	Nojemper November
April — Aprilis	Okosdos Augustus	Tegdemper December

When the Armenian era was created, the beginning was fixed at the I Navasart which followed the end of Andrew's bicentenary cycle, namely in 552 AD; it coincided with the 1st July of the Julian calendar.

Around 1116, John the Deacon established a new calendar based on the fixed year, the starting point of a new era. The I navasart was raised to the 1st of August; the intercalary day every four years was placed at the very end of the year as the 6th epogone. The beginning of the era was set for 1 August 1084. According to this reform, the timetable is as follows:

1 ^{er} Navasart = II (12) August	1 Mahegan 7 (8) February
1 Hori - Io (II) September	Areg 9 March
1 Sahmi - Io (II) October	1 st Ahegan April 8
1 Trè = 9 (ro) November	1 Mareri 8 May
1 Kalots 9 (Io) December	1 Margats 7 June
1 ^{er} Arats 8 (9) January	Hrotits 7 July
	1-5 (6) Aveliats 6-Io (II) August

The 6th epogone of the intercalary year occurs in August preceding the Julian leap year. The 1st navasart that follows the 6th epagomene is on August 12, and every day of the year is thus advanced by one day until the end of February leap, where the connection is restored.

Another reform was carried out in 1617 by Azarias of Djoulfa for the Armenians living in the

Persian. The beginning of the year was placed on March 21 and the^{first} intercalary day every four years after the last month before the ephemerals, so three weeks after the Julian bissexté.

The names of the months are new, and probably come from Persia or Hin-doustan.

r. Shams	21 March	7. Thira	17 seven.
2. Atam	20 April	8. Tama	17 Oct.
3. Shepath	- 20 May	9. Hamira	i6 Nov.
4. Nasha	19 June	10. Aram	16 Dec.
5. Ghamar (in Lamar)	19 July	11. Ovtan	15 Jan.
6. Natar	18 August	12. Nirhan	14 Feb.
		Aveliats	i6-20 March

THE MUSLIM CALENDAR

The Muslim calendar is a purely lunar calendar, established for religious use. It has 12 months alternately of 30 and 29 days; total: 354 days. Approximately every three years, the last month has 30 days instead of 29. This intercalation is regulated by a cycle of 30 years, which obtains an almost perfect concordance with the average course of the moon. This cycle consists of 19 common years and 11 intercalary years: 2, 5, 7, 10, 13, 16, 18, 21, 24, 26, 29. Here are the names of the months with the duration:

1. Moharrem	30 days	7. Redjeb	30 days
2. Safar	29	8. Shabân	29 —
3. Rebi'ul awal (Rebi I)	30	9. Ramadhan	30 —
4. Rebi'ul akher (Rebi II)	29	10. Shawwal	29 —
5. Djumada el ûlâ (Djumada I)	30	11. Dju-l-kade	30 —
6. Djumada el akhira (Djumada II)	29	12. Dju-l-hidje	29 (30)

Turkish names have too few differences for it to be necessary to record them.

THE AFTERMATH OF YEARS

(A) CYCLES OR PERIODS

The sequences of years are of two kinds.

1° Closed or defined sequences, consisting of a determined number of years, at the end of which the numbering of years begins again. These are the cycles or periods. Although these two words can be used for one another, it is nevertheless the name of period that would be most appropriate for denote a given number of cycles, or a number of years obtained by multiplying various cycles. We will, however, comply with the usages.

2° Open or indefinite suites. Started at a given point, they constantly continue their numeration. These are the eras. A nascent era looks at infinity: it claims eternity.

N.B. — An era can be constituted by cycles, if these, from a given point, themselves receive an indefinite continuous numeration. This is the era of the Olympiads.

We will therefore deal first with cycles or periods; secondly, è res.

Among the cycles of years, some are natural in nature, that is to say, they depend on natural phenomena, namely the walking of the sun or the moon, others are of pure institution or convention.

I. CYCLES WITH A NATURAL BASIS

A) CYCLES OF SOLEIL.

There are two cycles of the sun: one which is 4 years old and which could be called minor solar cycle: it is the Julian tetraeterid; the other, which is 28 years old and which we could say major solar cycle: it is the one that we designate when we talk about the solar cycle.

1. Julienne tetraeterid

Since the annual course of the sun is 365 days and 1/4 of a day (minus a small fraction), it follows that every four years, one day must be added so that the rest of the years correspond to the march of the soleil. This is a 4-year period, consisting of 3 years of 365 days and a year of 366 days. This period of 4 years was instituted by Julius Caesar, and that is why it is called Julian tetraeterid. The day added every four years is the day following the 6th of the calends of

March (= February 24) and it is also called 6th of the calends of March. Because of this doubling (*bis sextus kal. Martias*), this intercalary day was given the name of bissexta, and the year in which it is, that of leap year.

The slight difference in less on the quarter of the day constitutes in the long run a significant difference that reaches one day, then a number of days that increases. It went up to 1 day when, under Gregory XIII, in 1582, an adjustment of the calendar was made and a clarification of the application of bissexta; this consisted in the suppression of this day in all the centenary years not divisible by 400, for example: 1700, 1800, 1900, 2100, etc.

The intercalary day of tetraeterid has a different place in other calendars: among Copts and Ethiopians, at the end of the calendar year as the 6th epogone, namely on August 29. It is the same in the small Armenian era, where the 6th ephema is in the 11 August. Intercalation in both occurs at the end of the third year of the tetraeterid; it has the effect of delaying the dates of the fourth year until the meeting with the Roman bissexta six months later.

Among the Copts and Ethiopians, the years of the tetraeterid are designated by the names of the evangelists: the first is the year of Matthew; the second, the year of Mark; the third, the year of Luke; the fourth, the year of John. These same designations are used in dating concordances to indicate the current year of tetraeterid.

2. The 28-year solar cycle

Sunday letters. Competitors or solar epochs

The common solar year of 365 days consists of 52 weeks and one day. As a result, the last day of the year brings back the same day of the week as the first. Started on a Monday, the year ends on a Monday and the following year begins on a Tuesday and ends on Tuesday, and so on, so that, if all the years were 365 days old, the first day of the year, having after seven years traveled every day of the week, would return to the same day of the week that it had first of all. We would have a solar cycle of 7 years. Such a cycle can only exist in calendars with vague years, such as that of the ancient Egyptians. It is different in the Julian calendar. The leap year, by adding one day more than the common years, ends with the weekday following the weekday on which it began, and thus the first day of the following year, instead of starting a weekday later, begins two days later. A leap year, which began on a Monday, ended on a Tuesday, and the following year began on a Wednesday. The first of the year has moved from Monday to Wednesday, with Tuesday being overtaken. A day of the week is thus skipped every four years. It will take 7 leap years for each day of the week to pass to omission, and it is only then, after 28 years (7×4) that the year will start again on the day of initial week. This period of 28 years has been given the name of solar cycle (*circulus solis*, *ἡλίουτοῦ*); but the term is inappropriate, because it has no relation to the course of the sun. It would be more accurately called Sunday or weekly, because it is a cycle of weeks. It may be appropriate, however, because it is the walking of the sun that controls this cycle.

The Sunday letters are a series of 7 letters, from A to G, which are intended to indicate, in the years to which they are applied, which day falls on the first Sunday of the year, and consequently, on which day of the week the year begins. The letters A to G designate this order to the first 7 days of the year, i.e. the days from 1 to 7 January, then the A-G series starts again on 8 January and so on until 31 December. The year is designated by the letter corresponding to its first Sunday, namely A, if the dimanche is to the first of January; B, if it is on 2 January; C, if it

is January 3rd. Hence, the name of Sunday letter, because it is used to indicate the date of the 1st Sunday of the year.

We have already observed that the common year of 365 days begins and ends with the same day of the week, and that, consequently, the year begins with the day of the following week. The result is a corresponding march for Sunday letters, but in the opposite direction. Take a year, for example year VI of the Dionysian solar cycle, a common year. Its Sunday letter is G. This means that the first Sunday is January 7 and the year began with a Monday. The following year, year VII, also common, will begin with a Tuesday, and Sunday will be January 6: hence the Sunday letter F. In year VIII, also common, the Sunday letter will be E. We see that the Sunday letters go backwards. In leap years (e.g. year IX of the cycle), the Sunday letter changes to the bissextle day, so that these years have two Sunday letters, one from January 24 to 24 February, the other from 25 February to 31 December.

The Dionysian solar cycle begins with a year whose Sunday letter is GF. The beginning of the first solar cycle was postponed by computists to the year — 9 BC. J.-C., so that to know in which year of the solar cycle is any year of the Dionysian year, it is enough to add 9 to the latter and divide the total by 28. The rest of the division provides the

$\underline{x \ 9}$
answer: 28 — *the year of* the solar cycle.

Correlatives to Sunday letters are the *competitors*, also in the number of 7. The competitors of a year are figures that indicate the number of days elapsed since the 52nd Sunday of the previous year. A year is said to be around 1 competitor when the previous year ends with a Monday, 2 competitors when it is with a Tuesday. It begins as a result itself in the first case with a Tuesday, in the second with a Wednesday, and so on. The leap year increases soon or its competitors by one unit from the bissextle day, 25 February. This year therefore has two figures of competitors, but it is customary to indicate only the second.

As will be seen in the table below, competitors progress in the opposite order to that of Sunday letters.

With the competitors, it is easy to see which day of the week falls first of the year. When the year has 1 competitor, it is because the previous year ends on a Monday; so it itself begins a mardi. When the year has 2 competitors, it is because the previous year ends on a Tuesday; it therefore begins on a Wednesday, and so on, taking into account that for leap years, it is the first figure of the competitors (not expressed, but easy to supplement) that must be considered.

Competitors follow the course of the solar cycle, hence their name, and therefore start in the same order for 28-year-olds. They are still called *epactae solis* (i.e. days *added* to the solar course, distributed by weeks, and *epactae majores*, because they extend over a larger cycle of years (the solar cycle) than the lunar epacts, which extend over the lunar cycle (we have in view that of 19 years).

Competitors appear quite often in the charters of the Middle Ages as a chronological element. However, we did not think we had to overload our concordance tables, because we should also have marked, with their competitors, the other solar cycles that we will soon be discussing. To this absence will replace the following table where is indicated the correspondence of the years of the Dionysian solar cycle with their Sunday letters and their competitors. In order to know which competitors in a particular year it will be possible to know in which year of the cycle it will be corresponds, and it will be known, either by the aforementioned operation $\underline{x \ 9}$ or more simply the special table

2Li

that we devote to the solar and lunar cycles.

DIONYSIAN SOLAR CYCLE

SUNDAY LETTERS AND COMPETITORS

(The asterisk marks leap years)

Years of the cycle	Domic-nical letters	- Competitors	Years of the cycle	Domic-nical letters	- Competitors	Years of the cycle	Domic-nical letters	- Competitors	Letter Years dosing of the mical cycle	- Competitors
*1 ...	GF	1	8 ..	E	2	15 ..	c	1	22 . a	6
2 ...	E	2	*9 ..	Dc	4	16 ..	B	5	23 . g	7
3 ...	D	3	10 ..	B	5	*17 ..	Ag	7	24 • F i	1
4 ...	C	4	11 ..	A	6	18 ..	F	1	*25 • ED i	3
*5	BA	6	12 ..	G	7	19 ..	E	2	26 , C	4
6 ...	g	7	*13 ..	fe	2	20 ..	D	3	27 .! B	5
7 ...	f	1	14 ..	D	3	*21 ..	Cb	5	28 . i a	6

In addition to this Dionysian solar cycle, the only one presented by *the art of checking dates*, as well as *the chronology treasure* of Mas-Latrie, it is necessary to know also the solar cycles employed in the East by the Byzantines and the Alexandrians. These cycles are tuned with their respective eras; they are also tuned with tetraeterid (1) and their respective lunar cycle, all advantages that are lacking in the Dionysian cycle. They differ naturellement from the latter and between them in their place on the time scale, and in their starting point in the calendar, and these differences lead to those of the epacts. Another difference is in the way or better the ways of calculating celles-these. Saint Maxime counts them by going back from the day of the week (excluded) when the ^{ter}of the year falls to the previous Sunday (included). If the ^{ter} of the year is a Saturday, the epacts will be Friday, Thursday, Wednesday Tuesday, Monday, Sunday, so there are 6. If it is a Friday, there will be 5; if one Sunday there will be 7, that is to say none (2). As we can see, the number of epacts is always one unit less than the figure of the fairy. The *Chronicon paschale* presents us in a *trochos* anequivalent system(3). The epacts are indicated by the fairytale itself with which the years of the cycle begin. Thus the second year of the cycle is marked by B; this letter or number does not mean that there are two epacts, but that the year asnce by the second fairy (= Monday), which can not give more than one epact, the epacts being measured by their distance from Sunday (4). Among Ethiopians, however, it is Wednesday, the genetic day of the creation of the sun, which takes the place of Sunday for the calculation of the epacts, and these are also marked by the day of the week in this order: t means Wednesday; 2, Thursday; 3, Friday, etc. (5).

(1) It is the Julian tetraeterid, even for the Alexandrian cycle, because if it is true that it is at the end of the 3rd year of this cycle that the intercalation of the additional day (6th epagomene) takes place, it is the 4th, the one that contains the Roman bissextle, which is affected, so that, on the Paschal level, which is that of the cycles, it must be said that the Alexandrian cycle agrees with the Julian tetraeterid.

(2) Saint MAXIME, *PG*, 19, col. 124r BC.

(3) Ed. Bonn, 25.

(4) This beginning (Monday) corresponds to that of the protobyzantin cycle xocv& (Amy, which was on March 18; it was then brought back to the previous October to bring it closer to september I, after the year of the Byzantine era had been aligned with the indictional year.

(5) M. CRADTE, 107; I'. MAURO DA LEONESSA, *Cronologia e calendario etiopico*, Tivoli, 1934, p. 64.

We will find in a special table the concordances of the solar and lunar cycles with the eras. We give here: iO The beginning of each cycle in the calendar with the beginning of the week where it is; 2⁰ The table of solar epacts of the Byzantium cyclein.

1) BEGINNING OF SOLAR CYCLES IN THE CALENDAR

Dionysian cycle: 1e^r January, Saturday.

Protobyzantine cycle: xa r& pûatv, March 18, Monday.

xourà 0&nv, March 18, Sunday.

Byzantine cycle: October 1st, Monday.

Alexandrian cycle: March 25, Sunday.

Ethiopian cycle: with the Alexandrian era: August 29, Tuesday.

with the era of Diocletian or the Martyrs: August 29, Friday.

Cycle of Saint Maximus (with the Alexandrian era): 1 April, Sunday.

2) TABLE OF SOLAR EPACTS OF THE BYZANTINE CYCLE (1)

(Asterisk denotes leap years)

years	Epactes	years	Epactes	years	Epactes	years	ep
	1	*8.....	2-3	15.....	4	22.....	Acts
	2	9.....	4	*16.....	5-6	23.....	
1	3	10.....	5	17.....	0	*24.....	]6
	4-5	11.....	6	18.....	1	25.....	
3	6	*12.....	0-1	19.....	2	26.....	-2
*4	0 -	13.....	2	*90.....	3-4	27.....	3
o	1	14.....	3	21.....	5	*28.....	E ⁴ ₅
7							-0

This is also the progression of the solar epacts of the cycle of the computist Georges (life century) (2), but he does not say on what date of the calendar he begins them.

(B) LUNAR CYCLES

1. Pre-Christian lunar cycles

The duration of the lunar year was calculated practically as having 354 days, and that of the solar year as having 365 days, a difference of 11 days. At the end of the solar year, the 12-month **lunar year has been** over since 11 days, and a new lunar year has **been** underway ever since. These 11 days in advance are called lunar epacts, that is to say days of the lunar year added to finish the solar year, *epactae lunares*, *epactae minores* (in comparison with solar epacts, called *majores*), *adjectiones lunae*. The following solar year is said to have 11 of these days. Let us note immediately, for the clarity of the presentation, the way that has been established at least since the III^e century of our era to count the epacts.

When a solar year began with 11 lunar epacts, the following year has 22 epacts in addition, which are added to the previous ones, and therefore **has** 22 epacts. The third year has 33,

(r) According to GINZEL, III, 300.

(2) PZ, 9, 1900, 26, 1. 1-14.

but from this number is deduced 30 days to form the embolismic month, so that it has 3 epacts; and so on from I I to I I, always subtracting the number 30, when it is exceeded. The connection between the solar year and the lunar year is the essential purpose of the lunisolar calendars. It is carried out by means of the intercalation of a thirteenth lunar month approximately every three years. The inter-
the state of the crops required it. Mays to
as the duration of the course of the sun and that of the course of the moon were more accurately evaluated, the intercalations were adjusted and periods of years or cycles were established, at the end of which

the two courses return to the same starting point, and at which point the intercalations are reproduce in the same order. Difficult task! Since the solar year and the lunar month have no common measure and equivalence has only been obtained approximately, the small differences in fractions of jour accumulate from year to year to constitute at the end of the cycle the value of one day, and in some cycles, of several days. To restore the agreement, sometimes we add half a day to the moon, which is done by giving the intercalary month the duration of 30 days, and sometimes we take away a whole day; and then the age of the moon is advanced by one day. This omission of a day is called the *saltus lunae*, the jump of the moon. It has the effect, or rather, the correlative effect of increasing the number of epacts that year by one unit. The *saltus lunae* takes place at the beginning of a neomenia by advancing it by one day.

It was from the ancient Greeks that Christians borrowed the use of lunar cycles. Cleostrates is credited with around the year 50 BC. J.-C., the invention of the 8-year cycle, or okateterid, comprising three intercalations, namely in the years 3rd, 5th, and 8th, and comprising 99 lunar months. The calculation was made on the basis of 365 days 1 d 4 for the solar year and 29 1/2 days for the lunar month, except for the intercalary months which were given a duration of 30 days. The total was the same on both sides, 2,922 days. But the measurements were poorly taken, especially for the moon, whose duration was underestimated, while that of the day was slightly overestimated. The result was a deviation of 1 day and 1/2 at the end of oktaétéride, of 3 days after 16 years. When we noticed this, we made up for the error by giving the moon three days of epacts every 16 years. We thus had a cycle of 16 years or hekkaidekaétéride. After 10 of these cycles, the total of the epacts was 30 days, and then one leap month was deleted. The full cycle therefore consisted of a duration of 10 hekkaidekaétérides or 160 years. Such a system, which required such frequent corrections, could not satisfy astronomers.

In the fifth century BC was known in Greece another cycle, which must have had a great fortune, that of 19 years. It is honoured to Méton; it is very likely, however, that he did not invent it, but borrowed it directly or indirectly from the Babylonians, among whom existed as early as the century BC and probably even since Nabonassar, whose era begins on February 26, 747 BC. J.-C., a lunar cycle of this duration (1). Here is the description of the cycle as it is in Meton (2). At the period of 8 years, which he maintained with his 3 embolismic years, Meton (432 BC) joined another of 11 years, of which 4 embolismic: the whole constituted a cycle of 19 years, of which 7 embolismic. The authors do not agree on the place of these years. In all 235 lunar months, including 110 cellars and 125 full. They formed a total of 6 940 days. This total, divided by 19, gave a means of

365 days ⁵/₉ per year. This exceeded by ⁷/₆ the estimated length of the year at 365 1/4 days and constituted a 1-day gap after 76 years. Callippus (330 BC) thus improved the System of Meton by removing one day after 4 ennekaétérides (4 19 = 76). Thus was formed the cycle of 76 years — éxx.cazeop:řxovvzsz-ıpiç — called callippe period. It is formed of 4 cycles of Meton,

(1) See M. D. SIDERSICY, Étude sur la chronologie assyro-babylonienne, in *Mémoires présentés par divers savants à l'Académie des Inscriptions et Belles-Lettres*, t. XIII, ^{1re} partie, 1923, p. 106-199.

(2) GINZEL, II, 389-405.

minus 1 day, has 940 months including 28 intercalaries and 27,759 days (instead of 27,760). Ptolemy used the periods of Callippus in his astronomical observations (1).

Hipparchus discovered, the first, it seems, that the year has a little less than 365 1/4 days. He calculated that after 4 periods of Callippe, a day should be deleted. Its period is 304 years. The average duration of the resulting year is 365 d 5 h 55 min 12 s. This is the most accurate measure known in antiquity. The Hipparchus period was not used in practice.

The 19-year cycle, created for a luni-solar calendar, was no longer useful and ceased to be in use in Greece after the introduction of the solar calendar according to the Roman reform.

Censorin (2), who knows these cycles of 8 and 19 years, reports others: that of Philolaus, 59 years old, that of Democritus, 82 years old. We do not have any details about them; they did not have to leave the treaties of the astronomers.

For the West, we know of our own lunar cycle (that of 112 being a development of that of 8 years) only that of 84 years, but we can not say with certainty whether it is of astrological or Christian origin. In any case, it surely did not enter into civilian usage.

2. Lunar cycles and pascal computus

The Christians, for their Easter festival, first observed the Jewish dates, either by placing solemnity on the same day as them, which was the custom of the Churches of Asia, or by bringing it to Sunday, which was the more general usage. The conflict that resulted from these differences at the end of the second century gradually subsided and died out before the Council of Nicaea. Some groups focused on the fixed date of 25 March.

From the III^e century, we note the use of cycles for the establishment of Easter dates. In the West, appears the cycle of 112 years, based on the double okateterid ($[8 \times 2] \times 7$), cycle attributed to Hippolytus and used by the Pseudo-Cyprian. Then come the centenary tables of *the Augustalis*, the *Supputatio romana*, the calendar of 354, the Carthaginian computist of 455, variously established on the cycle of 84 years (3).

In the East, liturgical texts honour Demetrius of Alexandria (189-231) of "invention of epacts" (4). Most likely, this must be the use, by means of the epacts, of the 8-year cycle for the calculation of the Passover. It is indeed this cycle that we see used by Dionysius of Alexandria, the second successor of Demetrius. Various other cycles were tried or proposed, but all had to fade before the 19-year cycle, adapted to the Pascal computus by Anatole of Laodicea. Anatole does not himself tell us what measures he has served. Later computists do the same in the following way. The Julian year being counted 365 1/4 days, the 19 years make 6,939 3/4 days. They include 235 synodic lunations. These make: 228 months of 29 1/2 days and 7 30 days embolismic months; we add 4 3/4 days corresponding to the days

9

leaps 4 —, - 4 3/4. Total: 6,940 3/4 days. As this exceeds by one day the total of the 19 years juliennes, we make the equality by deleting 1 day to the moon in each cycle. This is the leap from the moon that we talked about. It is normally placed at the end of the cycle. Neither Anatole nor the computists his successors used the observations of Callippus and Hipparchus.

(1) See the table of Meton cycles (beginning at 432 BC) and that of the Callippe periods (beginning at 330 BC), in MAHLER, *Chronologische Tabellen*, I, 59-66, and in GLNIZEL, II, 406-407 (Meton cycles), 415-416 (the first Callippe selement period only) according to the various systems concerning the place of the embolismic years.

(2) CENSORIN, *De die natali*, 18.

(3) On these cycles of 112 years and 84 years, see above, pp.6-22.

(4) M. CHAINE, 70; P. MAURO DA LEONESSA, *op. cit.*, 47.

The Cycle of Anatole gave birth, through reforms that changed its starting point, to the Alexandrian cycle and the Byzantine cycle (1). In the terminology of Western computists, the "19-year cycle" refers to the Alexandrian cycle. "What They Call" the lunar cycle" is actually the Byzantine cycle. The golden number applies to the years of the "19-year cycle", i.e. the Alexandrian cycle adopted in the West. It is thus said that the golden number of the year 900 is 8 to signify that it is the 8th year of this cycle.

3. The limits of the Easter festival

The difference in the cycles used partly explains the differences on Easter dates that occurred between Rome and Alexandria in the fourth and fifth centuries. Other causes were added, even more important. These are the various limits assigned here and there to solemnity both in relation to the age of the moon and in relation to the dates of the civil calendar.

In Alexandria, we note by the festive letters of Saint Athanasius that the limits of the Feast of Easter were, from the first third of the fourth century, on the one hand the *XV-XXI lunae* (one did not hesitate to celebrate the Passion of Christ before the *XIV Lunae*), and on the other hand, since Athanasius used the Alexandrian cycle, from March 22 to April 25. In fact, the case did not arise in his time for April 25, but there was the case of April 23, where he marked the Passover. Were these standards already applied in the III^e century and in the IV^e before the Council of Nicaea? One can only presume this, standing on the reserve, especially as far as the Cycle of Anatolyis celebrated.

In Rome, from the IIIrd century, as seen by the Table of Hippolytus, the memory of the Passion could not be celebrated before the *XIV lunae* nor consequently, the Resurrection of Christ before the *XVI*. The limits of the Easter festival were therefore the *XVI-XXII lunae*. The limits in the Julian calendar were March 25, the Julian date of the equinox, and April 21, the feast of *Natalis Romae*. The *Supputatio romana* maintained these standards (2). It is easy to conceive of the conflicts that such differences with the Alexandrian canon were to engender. They could only completely disappear by erasing one system in front of the other.

The 19-year system undoubtedly prevailed over the 84-year cycle. In the fifth century, it imposed itself on the attention of the Romans. Victorius of Aquitaine adopted it, but he retained the traditional rules concerning the limits of the Easter festival (3). Dionysius the Little, resolutely abandoning them, took the 19-year cycle in its Alexandrian form, official in the East since Theodosius I^{and} including its limits of the Easter festival. Rome's accession to this life-cycle of the century marks the end of conflicts in this area.

4. Remarks on various elements of the 19-year-old Paschal lunar cycle

Embolismic years. — The embolismic years of the Byzantine and Alexandrian Easter cycles

Byzantine cycle (xourà cpt')atv)	17	18	19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Protobyzantine cycle (xct'& 0:;r)(tv)	18	19	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	1
Alexandrian cycle	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	1	2	3	
Bede's Alexandrian cycle.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	1	2		

We see that the embolismic years correspond in the various cycles. Several years of Bede are exceptions. But this makes no real difference for computing, because the intercalation being

(1) See part I, chapter III.

(2) Augustalis admitted easter to X/ V *lunae*. This can be seen as an indication that this computist did not belong to the Church of Rome.

(3) KRusen, *Studien. II*, 12-15.

in these staggered years from August to December (1) has its effect on the Easter date of the following year, and thus joins the embolismic year of the Alexandrians and Byzantines.

The leap from the moon. — The leap from the moon, by which the day too many of the total lunations in relation to the solar years in the 19-year cycle is removed, is normally placed at the end of the cycle, or more precisely between the end of the cycle and the beginning of the next cycle. If sometimes this rule is not observed, it is either because the beginning of the cycle was taken outside a computing reason, or because of the conformity of the cycle with another cycle, or for particular reasons, for example to justify a chronology.

Victorius of Aquitaine places the moon jump of his cycle at the end of the sixteenth year (2), but he chose his starting point without taking care of the course of the moon, namely, he placed it in the year of the Passion of Christ. If he places the leap of the moon at the end of the sixteenth year, it is because he probably considers year XVII to be the start of the real cycle, in accordance with the first cycle of creation. — See the *Victorius cycle in column III of the comparative table, pp. 54 and 55.*

In the Byzantine cycle, either xcf. -:& (pir)o-tv, either xy.-r& 0éGtv, the jump from the moon was first to the

end of the last year, and he stayed there in the xoct, Uacv. In the strictly Byzantine xct-c.& cycle, the moon jump, from the century life, is carried to the end of the sixteenth year. The reason for this is the unification of the Easter dates of this cycle with those of the Alexandrian cycle. The Easter date being dependent on the jump of the moon, it is necessary to effand change it if we change that one. The moon's jump in the Alexandrian cycle has its normal place at the end of its nineteenth year; to this year corresponds the xvth in the Byzantine cycle zo(-,7c>. cAatv. We can therefore see why it is at the end of the sixteenth century that the leap from the moon is placed.

Saint Maximus tells us who he calls 71:SVT. C(17Xoi5vTE. c, zoci, éi,cer:Xoûvzz...-ç, who put the jump of the moon at the beginning of the half year of their cycle, which was the Byzantine cycle xv,7. ?ûo-tv (3). They had a particular purpose, which was quite difficult to disentangle, but which was probably of a chronological nature.

Generally, those who, using a natural cycle, place the jump of the moon in an abnormal place, seek to justify it. They do this by using the division of the day (vuz0fp.spov) into 60 parts or X,---,77.7£ To explain the suppression of the extra day that has the sum of the lunations of the lunar cycle, they distribute these 77.76. through the years of the cycle, but in such a way that the total day, that is to say the full day, is reached in the year in which the jump of the moon was fixed. Thus the ITEV70(7T)&3V17a.%" gave 5 X2:777^ 1/. every year, so as to put the jump from the moon to the half year, to which they incorporated the last 5 l,z7z. rej (12' < 5 --- = 60) (4).

Epacts and Osta.é)m.ov. — The epacts are not counted in the same way in all cycles. The Cycle of Anatole, in its first year, counts 11 epacts; that of Alexandria begins at 30 epactes, that is to say without epacts; that of Constantinople zot-râ. cp1')atv, in 1r epactes;

0&atv to 30 epactes. In addition, the epacts start from a different initial year depending on the difference in the cycles. Finally, the leap from the moon, which increases the annual batch of epacts by one unit, necessarily influences the number of epacts of the following years. From all this, it follows that for the same year, different cycles cannot have the same number of epacts.

The starting point in the year of the calculation of the epacts is normally at the date of the Paschal neomenia which is at the origin of the development of the cycle, i.e. at the Paschal neomenia of the first year of the cycle. In the Anatole cycle, it is March 22. In the Alexandrian cycle, it is neomenia

(1) See the table of neomenias in our *Ille Partie*, p. 303.

(2) KRUSCH, *Studien II*, 26.

(3) Saint MAXIME, *P G*, 19, col. 122S-1229.

(4) *Ibid.*

of the 1^{er} thôth (August 29; 30 after the 6th epogone), first of this cycle. Saint Maximus testifies in fact that the Alexandrians measured their epacts until August 28 (1): which means that they began to count them from the 29th (1^{er} thôth). Later, the neomenia of the 1^{er} thôth was replaced by that of 23 March; it is the one indicated by Bede as the starting point for the calculation of the Alexandrian epacts.

Saint Maximus points out yet another mode: it is to measure them from the first of April (2). It is undoubtedly this mode that is his. He wanted to give the same starting point to the epacts of the moon as to those of the sun that he counts precisely from the First^{of} April.

For the Byzantine cycle, the natural starting point is March 20, where is the Paschal neomenia of the first year. It was postponed to 1^{er} January, where the moon is the same age as in 1^{er} March, namely the half day. This postponement had to be carried out very early, at a time when the Roman calendar was still the official calendar, perhaps even from the creation of the cycle. Saint Maxime tells us that the "ITE... VT(I.7CX0i5V7E-Ç settled the Passover on the moon of January 1^{er} (3). These computists followed the Byzantine cycle.

With the epacts, we must mention the OzpIXtov. This term is a foundation; it refers strictly to the age of the moon at the beginning of each cyclical year, the age on which the calculation of Easter is based. Among the Byzantines, as we have just said, the cyclical year begins for the lunar epacts in 1^{er} January. This meaning of Ozp.é1,cov is well marked by Psellos. The epacts of the first year, he explains, are 1 to 1 January. It is joined on the first of January itself, which makes 12; it is the Ozp.estov, the age of the moon (4). For the other years, the other years are then counted as subtracting 30 when this number is exceeded. We thus have both for each year the march of the epacts and the age of the moon, which is a great simplification. This meaning of OE:p,entov also applies in the sun, including 0rf1. D,6ov, placed at the 1^{er} October, is 2Monday) in the first year of the cycle, the epact being 1.

The word Osp.Duov is sometimes taken as simply to mean the number of epacts.

The epacts, from the xith century, not before it seems, because Psellos ignores this change, instead of being counted 11 in the first year, are counted 14, and this initial increase naturally has its effect on the following years. Various seasons are given of this later use. Note that in this account, it is the term of 0F.. p.ésmov that is applied.

The variety of the various elements of computing that we have just noted in the 19-year cycle is made noticeable in the picture we have painted of the various forms of this cycle. Several of these forms already have their explanation in the preceding remarks. Others are given in our dissertation on the origin of the world eras.

C) THE 95-YEAR CYCLE

The 95-year cycle is a period comprising 5 19-year cycles (5 19 = 95). It contains the list of the *Easter XIV lunae* with the indication of the days of the week when they fall, which makes it easy to know the date of Easter which is on Sunday suivant. We also know by this list the day of the week of the *XIV lunae* of the next period of 95 years. Not in the sense that the same days of the week all come back in the same order. It is not believable that the creator of the cycle could have claimed this. A lag occurs in all leap years. The rule

(1) Saint Maxime, PG, col. 1272 Be.

(2) Ibid., col. 1269 D and 1272 Be.

(3) Ibid., col. 1233.

(4) Gertrude REDL, La chronologie appliquée de Michel Psellos, Byz., 5, 1929, p. 235.

of the cycle was to be this: the Easter dates (*XIV lunae*) of the common years return after 95 years on the same day of the week; those of leap years return after 95 years not on the same day of the week, but on the previous day (1). Ainsi, in 258, the first year of the Anatole cycle and common year, the **XIV Easter lunae**, marked on 4 April, fell on a Sunday; after 95 years, in 353, it returned to Sunday. Similarly, the *Easter XIV lunae* of the following year, 259, also a common year, marked on 24 March, fell on a Thursday; it returned to Thursday in 354. But the *XIV Easter lunae*, **April 12, which** in 260 is leap, was also a Thursday, was not a Thursday in 355, but a Wednesday. Through the game of bissextle, the cycle gradually slipped, going up, through the days of the week. It was, so to speak, a sliding cycle, of perfect regularity. Observing this difference between common and leap years, the Easter of the next 95-year period was known in advance.

D) THE 532-YEAR EASTER CYCLE

This cycle results from the multiplication of the years of the solar cycle by the number of years of the lunar cycle ($28 \times 19 = 532$). It brings the Easter dates back to the same day of the month and the week after 532 years.

It should be noted that the 532-year Paschal cycle has been applied differently, namely: either from the joint beginning of the lunar and solar cycles; this is the most logical mode: it is applied in the Alexandrian and Byzantine eras; or by taking as a starting point one of these two cycles, in this case the lunar cycle, because of its importance for the Easter festival: this is the case of the so-called Dionysian cycle, which begins year 1 of its lunar cycle and year 8 of its solar cycle; or finally from a religious event, such as that of Victorius, which begins with the Passion of Christ. In this case, the solar cycle aligns with the lunar cycle. (On the origin of the 532-year cycle and its various applications, see our Part I.)

This isopsephie cycle was given the name alpha (1Xcroc).

2. INSTITUTIONAL OR CONVENTION CYCLES

A) OLYMPIADS

The Olympiads are four-year periods that derive their origin and name from the games that were celebrated in Olympia at the beginning of the summer every four years. The Greeks called these games *γῆρας* (quinquennial among the Romans), because they considered the first year of a new period to be the fifth of the previous period.

The Olympic Games date back to the city century BC. J.-C.; they were abolished by Theodosius I in 394.

The term Olympiad is sometimes used in the charters of the Middle Ages in the sense of four-year period without any connection with the ancient Olympiads. Thus, in the donation of the Count of Autun to the Abbey of Cluny in 956: *anno imperii Lotharii regis filii Lotharii regis II, prima olympiadis*: the term designates the first period of four years of the reign of Lothair (GIRY, p. 96).

It still survives as a literary expression to mean a period of four years. It is in Olympiads, for example, that Ausone indicates the age of her father: *Undecies binas vixit olympiades* (*Parentalia*, I, verse 4).

(i) This feature is noted in the Prologue of pseudo-Cyrrille. PErAu, *De doctrinis temporum*, ed. Venise, t. II, 502 : *n Unum tantum in quibusdam annis propter rationes bissexti, qui occurrere non potuit usque ad ultimum summum circuli annum, qui redit ad caput, adjiciendum, vel potius dimittendum monui.*

The Egyptian indiction, the beginning of which, after probably having been originally fixed at the ler thôt, was soon modified and revised each year according to the state of progress of the crops. It is seen oscillating from May to July. It was a meditatedindiction. This system continued beyond the Arab conquest. The epigraphy shows us the indiction used in Egypt until the ninth century (Lefèvre, *Recueil des inscriptions grecques chrétiennes d'Égypte*, n° 643). Most likely, the mention of Indiction 3 which is found, and is found alone, in the protocols of the Acts of the Brigandage of Ephesus for dates of August of 449 (August 8: Ed. Schwartz, II, I, p. I, 77, and Mansi, VI, 6o5; Syriac Acts, Perry, translation, p. 401; **August** 22: SyriacActs, *ibid.*, 13) and which all publishers consider a fault for indiction 2, is not one, but simply expresses the Egyptian indiction, already begun. The protocols also mention the name of the Egyptian month: *mesori*.

Greeks who divided the month into three parts or decades: ics-re(p.svoç, la.&aoç, pOevo)v (3). But, in this system, each decade had its own number, and there was no continuous numeral for the whole month, as is the case here. We will therefore hesitate, for this, to admit that in the September 22, the month is in its end. It is as if we **were** saying, because it is the same proportion, that the indiction is in its end in the first days of June, exactly **on June 2**. Be that as it may from this point, a radical reason ruins Leval's explanation, is that it goes back the dedication of the oratory en 451, while it took place very surely in 452, date marked by the consulate.

13

What makes it difficult to accept the testimony of the inscription is that it is isolated and seems to offend a dogma. But we do not think that this dogma, from the establishment of the indiction until 452, date of the dedication of the martyrion of Saint Christopher, that is to say for a half, is without testimony, at least no one presents any and I have not met any.

As for isolation, it is not absolute. And I am thinking here of the date of this famous earthquake that desolates Antioch under Leo I, and which so many historians, and recently G. Downey and E. Honigmann, have dealt with. Of the chroniclers who have related it, the most precise is Evagre (1). Here are the chronological notations he applies to it:

1. 2nd year of Emperor Leo;
2. Year 606 of the city (Caesarean era of Antioch);
3. September 14;
4. Sunday started (the term &-razy.-:c.(Xy.6cri g, to the aorist, can have no other meaning);
5. II e indiction (= 457-458).

Nos 1, 2, 3 and 4 are concordant for the date of 14 September 458. That leaves the 5th, which is clear that if this date is certain, it leads to indiction beyond the first of September. But is it safe to dispute this (2). Misunderstanding the meaning of *brezotTaXoc6o1¹* ("a-ric" he thought he wanted to designate Saturday, September 14; but this coincidence took place, not in 458, but in 457, way, the agreement with the indiction is obtained, certainly counted from the first of September, it is also necessary that a telle indiction agrees with the year 606 of Antioch. However, as of 457,

the indiction, the year 606, according to the calendar still in force in 449, has not yet begun on October 1st. To unify the two dates, G. Downey sees no other way than to consider a change of calendar occurred previously in Antioch and consisting in moving the beginning of the year from 1 October to 1^{er} September to bring it into agreement with the Byzantine calendar. We know that this has been done, and an inscription of 483 is now considered to be the oldest that attests to this. Downey believes that Evagre's text postpones the operation until 457,

This demonstration is based only on the misinterpretation of *èrct.xwroc?aðçíia* and must therefore be taken into account. It leaves intact the date of the Earthquake of Antioch in 458. E. Honigmann subsequently established this date in an irrebuttable manner, by consulting the documents (3). But with it always demeure the problem of indiction II. If we count it from the first of September, it is in contradiction with the 14 September of 458, day which already belongs to indiction 12. I cannot understand why Honigmann did not consider this difficulty, while he admits the beginning of the indiction at the first of September: he even assumes that the change of calendar which Downey speaks must have been made shortly after the disaster and on its occasion. It is not clear. We see dans the text of Evagre, a testimony that on the date indicated, 458, the indiction had not yet begun on the 14th of this month, and had not yet begun on the 14th of this month, and the reason that made place in the indiction I i on September 14, 458. Thus perfect the concordance of the chronological notations attached by this author to the event. Certainly, Evagre has only one source. Undoubtedly, there is another very simple solution: it is to declare the text at fault, to read by indiction 12. But do we have the right to do so, when there is, very close in time, but a little earlier, a document that nothing can shake or evade, namely the inscription of Chalcedon where the style of indiction has the same peculiarity?

(1) *Hist. eccl.*, II, 12; ed. BEDEZ-PARMENTIER, p. 63.

(2) Glanville Downey, *The Calendar Reform at Antioch in the fifth Century*, *Byz.*, 15, 1940-1941, p. 104.

(3) E. HONIGMANN, *The Calendar Change at Antioch and the Earthquake of 458 A. D.*, *Byz.*, 17, 1942, p. 194.

This inscription is a document that alone carries certainty. Évagre's text, which is not contemporary, has less force, but as it presents itself in excellent conditions, in a series of concordances, it turns out that at the same time as it receives from Chalcedon's inscription an additional authority, it brings him in turn a testimony that brings her out of her isolation.

In favour of this late indiction beginning after the first of September, we believe it useful to add another epigraphic text which, if it is not absolutely convincing, is such that it can have no better explanation than in the same perspective. This is an inscription published some 70 years ago, but it has gone unnoticed as far as our problem is concerned. It is

Panion, in Thrace, so in full Byzantine atmosphere. I transcribe it with its iotacismes: EvOu.

ϣ.ϣαϣτ-ρε εϣ Τϣϣ ρ.αϣοτϣαϣ [i.vcp.cç Asoyna Ovyamw Euyz'vcov noppuporcoeov ox'ro6pcou

cf. pm tv(tx'ccovoc) O ± (1). Isolated as it is, this indiction is insufficient to let us know the date of the inscription, but the square sigmas are clues of an ancient era, IV or fifth century. What is remarkable and that we will surely have noticed is the formula of dating: "Month of October, beginning of the indiction." This formula is unusual, because generally, the εϣϣιλ I.v&x-rté;woç does not come out of September. Should we think of an indiction that would begin in October? It is not exigible, and the formula ceases to amaze if the indiction it designates begins in September, but after the 22nd. Between 22 September and the beginning of October, there are only eight days. Thus the inscription -de Panion, without constituting once again an absolute proof, confirms in a striking way that of Chalcedon.

But if the indiction, at that time, does not begin in the first of September, what is its starting point? That is not easy to determine. Here are a few observations.

By taking strictement to the letter the data of the inscription of Chalcedon, it is on September 22 that the indiction ends. It is therefore on 23 September that its starting point is. However, we find in various liturgical documents the mention of a v εροç fixed precisely on 23 September. Thus, in the Synaxaire of the Church of Constantinople, ed. of the Bollandists, *AASS, Propylaeum Novembris*, col. 71-74, according to several manuscripts that range from the 10th to the 16th centuries. Thus in the Typikon of the Church of Constantinople (IX-XVI siècles, ed. of Dmitrievskij (other examples later) (2). All these manuscripts present the formula: Τὸ βίον γΤΟÇ ΧΟÇΙ. 01'), 24cç

ϣϣαϣ ΕΧτϣϣ6Ε.. ∴: (this is the miraculous conception of St. John the Baptist). This notice passed among the Slavs and is found in their oldest manuscripts, in the same order (the formula "conception of Saint Elizabeth" has simply been replaced by the equivalent formula: conception of Saint John the Baptist). Such are the Glagolitic Synaxis of Assémani (10th century), the Evangeliary of Ostromir written in 1056-1057 and the Slavic Menologus called Sabas (11th century), reported, the first two by Martinov (3) and all three by Archbishop Sergij (4). The latter did not hesitate to recognize in the *Leto novoe* of 23 September the beginning of the Constantinian indiction. He was, however, unaware, at least he does not refer to it, of Chalcedon's inscription. Between this and the indication of the liturgical manuscripts, the coincidence is striking. Is it decisive? One will no doubt find a reason to doubt this in the fact that we see here the βίον γΤΟÇ coupled with the feast of the Conception of St. John.

baptist. Is it not because of her that 23 September would be the ? And, indeed, this festival, as opening the cycle of evangelical mysteries celebrated annually by the Church, may well be

(1) A. PAPADOPOULOS-KÉRAMEÏS, 'Αρχοκ.61' ϣϣϣ ϣϣετ. Είλτϣαϣι, Τ'ίλÇ 0 ϣÇ'(XY'Ç in '0 èv Kcova- ϣϣϣ.ϣϣϣ6Μ c eXXAvtxbq cpt. XoXoytx? Jç EaXoyoc. 'ΑρχαοXoycx-4 èϣτϣοϣι]. Ιλοϣϣ'ιϣι.. τοϣ 'ροι) ΙΖ' Τ6[.tou, Constantinople, 1886, p. 94. The editor does not make any reflection on the indicated indiction.

(2) A. DMITRIEVSKIÏ, *Typika*, I, 8.

(3) J. MARTINOV, *Annus ecclesiasticus graeco-slavicus*, 229-230.

(4) *SERGIJ, Polnyj tñsjaceslov*, II, 296. Add also the Old Serbian Evangeliary of Miroslav (11th century), phototypic edition of King Alexander I of Serbia.

considered a beginning of the liturgical year. To this idea probably corresponds the mention of a kanonarium of the Church of Constantinople (xix-xx century) which bears: 'H ai')X-À-rcPtç rç (1)k:g 'EXLC76.6F.T... v&JV

C.C",70Ç". It should be noted, however, that this explanation is an isolated fact, and that the heading: Tè véov(3·1¹))*rj(Inc,... awakens the idea of a simple juxtaposition. This is confirmed by the fact that it is exactly the same formula that is used for the indiction of September ment.

meeting with the feast of Saint Symeon the Stylite:

riveted IVKY;70ll xai Tov 66G011 7.-

Y.T.p6ç

Eup.cii)v (Vatopédi 322/956 = 1202 Eustratiades of the xve s., Dmitrievskij, II, 146; Synaxaire de l'Évergétis (xIIe siècle), Dmitrievskij, I, 256; Panteleimon 68 (half century), *ibid.*, 152; Vaticanus 1877, written in 1292, *ibid.*, 837 (1). But here in other documents this juxtaposition itself is not observed and the vé.ov g-ro,-, instead of being linked or mated with the Conception of St. John the Baptist, is with the equinox or *Ca-ip.spict*, according to the expression of the Greeks. Thus, in the synaxaria of the ninth and tenth centuries, published by M. A. Scholz, we read: Leov ytvé,)(3.x.scv &Tc IpzE-ry.t 6 Aoux&ç

clvo:r.vc;x7x',-GOcc, etn6 -cl4ç zupcotxniç [1.F.' 7& '771y ,3·4)o)atv•

ta'r.p.specEce.

zocXsi,Tott

veov

"à'.-roç (2). Similarly, in the so-called Typicon of Saint-Sabas, the same heading almost in the same terms with the same explanation (3). Both are also in the synaxis of the convent of the Évergétis of Constantinople. It specifies that the Saturday and Sunday following the Feast of the Cross (14 September) do not belong to the new year, but that the following Saturday and Sunday are the first of the new year (4).

The liturgical documents we make show us the new year identified on the one hand with the equinox, on the other hand with September 23. And the 23rd is also, in the inscription of Chalcedon, interpreted strictly, the beginning of the indiction. Is there a link between these meetings? Do they mean that the choice of the beginning of the indictional year fell on the equinox and that it was then observed and fixed on 23 September? I would not dare to say it without positive testimony and I do not think it is likely that for such an objective and we have carried out a revision of these seasons. If we had thought of the equinox, it is naturally its traditional date that we would have had in sight. The *veov Toç* of 23 September — while waiting to say indiction — must have another origin, which we shall try to determine.

We have seen above that the Macedonian lunosolar calendar in use in the kingdom of the Seleucids, did not take long to give way, after the Julian reform, the country being already conquered, to the solar calendar of this reform. This, however, was not accepted in all its peculiarities. Cities and regions went more or less far in their imitation. We are informed on this subject by the Hemerologion of Florence (Mss. of Florence, Leiden and the Vatican) (5). He gives us the state of various oriental calendars that must go back to the times of Augustus (6). The Lycia calendar is the closest to the Roman calendar. The beginning of the year is the same, and most months also begin at the same time. But all the others have retained their traditional beginning of the year in autumn. In Antioch and Seleucia, the months were modelled on the Roman months, with the same number of days and even the beginning of the months respectively, but the beginning of the year, which remained autumnal, was fixed on October 1st. Elsewhere, the year began at the Roman equinox,

(i) Note that in Ostromir's evangeliary, of which we have the facsimile edition before the eyes (St.-Pét., 1883), a dot followed by a capital letter separates the indications of the New Year and the Conception of St. John the Baptist: *Novoe leto. I zaeatie ioannu Krestitelju*.

(2) M. A. SCHOLZ, *Novum Testamentum graece*, I, 464.

(3) Editions of Venice, 1685, p. 22; 1691, p. 26.

(4) A. DMITRIEVSKIJ, *TyPika*, I, 282.

(5) *Mediceus XXVIII 28; Leidensis. gr. 78; Vatic. gr. 1291.* — GESZEL, III, 18-34; W. KUBITSCHKE, *Die Kalender in ihrer von Florenz, Rom und Leyden*, 1915, where the Vatican copy is used for the first time.

(6) See above, pp. 172-173, the table of these calendars.

and the months were formed from the equinox on the Roman mode. These are the calendars of Asia and Ephesus, the first of which of the year is on September 24. We can certainly add to this the calendars of Bithynia, Crete and Paphos, which the Hemerologion will begin on 23 September. They had previously started on 24 September. This passage from 24 to 23 September is not a mere supposition. It can be taken for sure. We are instructed by the case of the Asian calendar. Our Hemerologion gives it as a start, as we have just seen, on 24 September. However, a whole series of inscriptions from Asia: Apamea, Euménie, Dorylaeus, Pergamon, Priene, convince us that there was at the time of Augustus a reform of the calendar of this province, by which the first day of the year, in honor of this emperor, is brought to 23 September which is his *dies natalis* (1). The inscription of Priene gives the details of this new calendar, namely the names of the months, their respective duration and their beginning. The names are the Macedonian names, except the first which, in honor of Caesar Augustus, is called *Kcii:Gocp* instead of *Dios*, and the first day of this month, by the fact the first of the year, corresponds to the ninth day before the calends of October (September 23), *dies natalis* of Augustus; and all the other months also begin with the ne jour before the calends (2).

What happened there for the Asian calendar undoubtedly contains the explanation of the date of September 23 as the beginning of the year in the calendars of Bithynia, Crete and Paphos. This date certainly does not designate the equinox, which could only be on September 24, but surely the *dies natalis* of Augustus, which, as in Asia, will have taken the place of the equinoctial day as the first of the year.

To these regions, Asia, Bithynia, Crete, Cyprus (Paphos), epigraphy makes it possible to add Pamphylia (3). In addition, the calendar of Heliopolis (Syria), in the Hemerologion of Florence, whose first month, according to Ginzel (4), is not known, was, in all probability, the month of Ab, whose first day corresponded precisely to September 23. Ideler understood this as well (5). In addition to these countries or cities, it can well be assumed that there were still others to take a similar measure. I am thinking in particular, because of the Testament of Augustus, of Ancyra and Galatia, whose calendar is not known to us, and, neighbouring Galatia, of Cappadocia, which, incorporated into the Empire under Tiberius, was able on this occasion to modify its calendar.

Whatever the consequences of this last point, it remains that almost all of Asia Minor, plus important islands, more, most likely, Syrian Phéiopolis make September 23, *dies natalis* of Augustus, the beginning of their calendar year. But this date is no less known to other Eastern countries, in the first place, to those whose calendar received deeper the Roman imprint, such as Lycia, Antioch and Syria: this day, in fact, was an official festival of the first order. Such a situation has only spread and strengthened during the three centuries that separate Augustus from Constantine, so that, when one wanted, at the beginning of the IV century, to regularize the collection of the property tax by fixing a cycle of years on which it was to extend, and **que moreover the beginning of the years could hardly be that in the autumn, the day after the harvests (in other words, when the institution was instituted, which was made of 15 years), September 23, beginning of a month and beginning of year for an importante part of the population and festival of empire, was naturally offered to open the year and the cycle. It was already a veov Toç before the indiction. He became the veov -•,-oç of the indiction.**

W. Kubitschek presents another explanation: "Da das Indiktionsjahr in regionaler Verschie-

(1) GINZEL, III, 20.

(2) *Mitteilungen d. Kais. deutsch. Archäol. Anstalt. Athenische Abteilung*, 24 Band, 1899, p. 275-293; GINZEL, III, 20, n.

(3) GINZEL, III, 24.

(4) GINZEL, III, 33.

(5) IDELER, I, 440.

denheit auch ab 1/9 zu verlaufen scheint (griechische oder konstantinopolitanische Indiktion) oder vom 23/9 (doch wohl nicht vom 22, 9 (*typographical error for 24,19*), wie Beda zu meinen scheint ; also vom Geburtstag des Kaisers Augustus und somit vom Neujahr im prokonsularischen Asien ; als *Caesarea indictio* bezeichnet), so mag wohl die Indiktion grundsätzlich mit dem bürgerlichen Neujahr, je nach seiner lokalen Gestaltung, zusammengehangen haben (1).»

This note assumes that the two indictions of 1^{er} and 23 September have coexisted, but this is not based on any testimony and the inscription of Chalcedon, the only document that leads us to the threshold of 23 September, is **absolutely opposed to this**. Chalcedon, in fact, neighbor of Constantinople, is, in 452, date of inscription, under the **direct influence and dependence** of Constantinople, this for more than a century. It is therefore the indictment of 1^{er} Septembre, if it existed then, which should have been included. Let us add that no calendar of the Orient, neither in the *Hemerologion* of Florence, nor elsewhere, as far as can be judged by authors as knowledgeable as Ginzler and Kubitschek himself, presents a year or even **un month that begins with a September 1^{er}**. We do not see how we would have thought of this date.

It is obviously this idea of the coincidence of these two ways of beginning the indiction, 1 september and september 23rd, that led Kubitschek to formulate the hypothesis, ingenious certainly, that the beginning of the indiction, in each region, was **fundamentally linked to the beginning of his calendar year**. This hypothesis cannot survive in the face of the glaring case presented by Antioch, the great eastern metropolis. In Antioch, in fact, the beginning of the calendar year, which had been on October **since the constitution of the era** of this city, never attracted to oneself the beginning of the indiction; there was never any indiction other than that of September, and when the **conformity of the indiction and the calendar year was achieved in the second half of the fifth century**, it was the calendar year which aligned itself with the indiction, and not this one with that one (2). Hence he follows that on September 23, the beginning of the indiction, was for the whole of the East, with the exception of Egypt, whose climate called for a special regime.

This conclusion suggests another. It is not in the West, it is in the East that September 23 is the 1st of the year, the *Ve.OV g'70*;. The West invariably keeps the first of January. It is therefore in the East that it is necessary to look for the origin of the indiction. And in the East, it is not in Antioch, where the calendar year begins at the 1st of October, it is in Asia Minor, and in Asia Minor, it is Bithynia that must attract special attention. In Bithynia, in fact, was, since Diocletian, the capitale of the Roman East. This is where Licinius, Constantine's colleague, resided. Licinius, it is he whom we must designate as the true creator of the so-called Constantinian indiction and whose beginning was primitively on **September 23**. It will have taken naturally as the beginning of the indictional year, since it needed a date of autumn, the *veov &C4* of **September 23 in use in Bithynia** and in almost all Asia Minor, and which was **at the same time an official festival of first order of years** the empire, the *dies natalis* of Augustus, and therefore by this, a date easy to remember by all, a little like July 14 in republican France.

That the name of Licinius did not remain attached to this institution is not surprising. The laws of the co-sovereigns of the Tetrarchy and their mutually recognized successors, even if carried by one, were in the name of all, and in the end always had the name of the first of

(1) W. KUSITSCHKEK, *Grundriss der antiken Zeitrechnung*, 108. I refrain from discussing the connection established here between the *dies natalis* of Caesar Augustus and the so-called caesarea indiction. The origin of this designation could be quite different. The authors of *the Art of Verifying Dates* believe that the indiction of September 24 is said to be *Caesarean* because of its use by the emperors of Germany. It would therefore be necessary first to establish when the name dates back.

(2) WADDINGTON, *Greek and Latin Inscriptions of Syria*, Nos.³ 2667, 2689; JALABERT and MOUTERDE, *Greek and Latin Inscriptions of Syria*, No. 524; C. BRADFORD WELLES, in *Gerasa*, ed. by C.M. KRAELING, New Haven, 1938, pp. 467-468.

them. Thus, in the law that instituted the 15-year indiction, the name of Constantine preceded that of Licinius, although it was of the latter. When Licinius was eliminated, all his laws were abolished, that is to say, first of all, all those obviously that bore only his name since his break with Constantine. As for the others, Constantine could make a choice and keep those that seemed to him to be of general interest to the empire, but the name of Licinius was deleted, only to remain that of Constantine. Thus it is explained that the historiographers were able, in all good faith, to attribute to Constantine himself the indiction of 15 years created by Licinius. The first indiction of Constantine alone is the one that begins in 328.

The law instituting the 15-year indiction was passed in 314 according to the *Chronicon paschale*, which naturally attributes it to Constantine. The first year of the cycle being 312-313, no year could be better suited to the winner of Maxentius. As for the date of September 23 as the beginning of the indictional year; Constantine, who, after his triumph in his heart over Licinius, had transported his capital to the East, had no reason to replace it. The beginning of the indiction therefore continued to be on 23 September. And it was still in 452, date of the inscription of Chalcedon. It was, with the exception of Egypt, the *veov g-roç* for the whole east in administrative and fiscal terms, the official *veov g-toç*, although various cities, such as Antioch, Gaza, Bostra, have retained their beginning of calendar year. It was, moreover, on the civil level itself, for Constantinople and for what revolved around it, namely Thrace and the whole of Asia Minor.

But Constantinople, the new Rome, was constituted in the image of the old and took its uses. The Roman calendar in particular was adopted. They took the duration and the beginning of the months, and also their names, but, except in the official acts, the overly complicated numeration of the days was abandoned by nones, ides and calends. From the capital, this calendar, which can be called Byzantine, spread and became widespread. And as that of Antioch, while keeping its Macedonian names, had the same character, it happened that in front of this double influence the local calendars retreated and eventually disappeared, so much so that there came a time when the date of 23 December no longer answered anything, no longer meant anything. It was neither a beginning of the year nor a beginning of a month, nor a day of imperial feast, since the cult of Augustus had disappeared. It was replaced by a more convenient, more telling date: it was September that was chosen and which was now the first day of the indictional year. We stayed thus in the month that was traditionally that of indiction. This change, after the inscription of Chalcedon (452), had to be made in the second half of the fifth century.

When the indiction was instituted, the liturgical calendar, apart from the broad outlines of the Paschal cycle, was far from perfectly organized. In particular, the Christmas party and the parties that depend on it were not yet in existence. When they were introduced to the East, the *veov g-toç* of the indiction of the

September 23 had been in possession for two-thirds of a century. It is known that the Christmas festival, first instituted in Rome, was fixed at the winter solstice of December 25, to supplant the pagan feast of *sol invictus*. The other festivals of the natal cycle were fixed in dependence on this date. The conception of Christ or Annunciation, in accordance with natural deadlines, was placed nine months earlier and set for March 25, the spring equinox. Following the indication of the evangelist St. Luke, the conception and birth of St. John the Baptist preceded the conception and birth of Jesus by about six months. This made it possible to place the birth of the Prodiges at the summer solstice, June 24. Parallel and symmetry required that the conception of St. John the Baptist be fixed to the autumnal equinox,

24 September. This beautiful harmony is achieved in the Roman calendar and this is all the better because all these dates are translated in the same way, the *huitth* day before the calends. Among the Byzantines, all these Roman dates are observed, save one, that of the conception of St. John the

Baptist. Instead of 24 September, it is the 23rd which is the day of this festival, 23 September, the véo
v 'TC)Ç

of indiction. Undoubtedly, this shift is intentional. The conception of the Prodomé is chronologically the first of the evangelical mysteries: it is, so to speak, the entrance, the portico of the history of redemption. No date could be more suitable for its celebration, in the eyes of the Byzantines, than on the very day on which the calendar year begins. The religious year, the liturgical year was thus superimposed on the calendar year, and the two were one. Another consequence: since the **liturgical anné** begins on September 23 with the conception of the Prodomé, it was taken into account in the organization and distribution of the evangelical readings that occupy the days of the week throughout the year. ~~It was the evangelist St. Luke, of whom are the accounts of the conception and birth of St. John the Baptist and Jesus, who was placed in the head and attached to the~~ ~~veov~~ The beginning of readings in evangelicals is placed on the Monday following the first Sunday after the Exaltation of the Holy Croix. The readings are indeed distributed by weeks and the week begins liturgically on Monday. It is therefore the second Sunday after this festival which is the first Sunday of ~~veov~~ r 07. The first week begins on the Monday before that Sunday. It is, in fact, the closest Monday before 23 September.

The importance that was given to this ~~vb)v -roc~~ is apparent from the fact that in the oldest Slavic evangelicals, obviously dependent on Greek models, the name *de novoe lao* also affects the following Saturdays and Sundays of Luke. In the evangeliary of Assemani indicated above (tenth century) and in that of Ostromir (xith century), it extends until the seventeenth Saturday and Sunday of Luke (1). In that of Miroslav less old (xile century), it stops at the fifth Saturday and Sunday.

It is remarkable, and it may seem surprising, that the ~~veov~~ g-C(4 of 23 September has long survived in the liturgical books after the indiction had been transferred to ~~i~~ er September. The most natural explanation is that the date of September 23 had taken on a religious character and thus consecrated, thanks to the feast of the Conception of the Prodomé which had been fixed there as the opening of the liturgical cycle. It is thus probable that when the indiction passed to the first of September, this day was considered only as the beginning of the calendar year, while 23 September, traditionally charged with religious-significance, remained the beginning of the liturgical and ecclesiastical year. But it came quite naturally also to sanctify the beginning of the calendar year, which thus took, aussi, a religious character which only increased with time, tending in the long run to counterbalance, then to push back into the background and finally to eliminate the ~~v&ov~~ g'70Ç of September 23. This date, moreover, lost importance as new festivals were introduced, estimated to have more: I am thinking here of the group of Marian feasts, created by imitation of the feasts of Christ, namely Dormition, Presentation to the Temple, Nativity (2). The latter, moreover, despite its pre-revangelic character, could appear, too, and even more rightly so, because of the chronological anteriority of the celebrated event, as an opening of the liturgical cycle of redemption, which diminished the impression of the same order produced by the feast of the Conception of the Prodomé.

The ~~veov~~ g-rock; of the 1er septembre could only take advantage of this kind of duality. Its primacy was affirmed when the indiction saw its religious character enshrined by its own liturgical office. It is not known when it was instituted. To our knowledge, the first testimony of its existence appears in the menologe of the gospels of the year, of the city century, published by Morcelli (3). It emerges from the choice of evangelical reading for this day. This one reports the episode where Jesus, returned to Nazareth after

(1) The evangeliary of Ostromir even extends the appellation until the XVIIIIC saturday (without sunday).

(2) This feast also included the Conception. This mystery later had its own liturgical feast, which appears in the vine century, but is not generalized until the IX^e.

(3) *M'eroX6ytov* *si)wyysXix,N éop-roca'rty.6v sive Kalendarium Ecclesiae Constantinopolitanae... cura Steph. Antonii Morcelli, Romae, 1788.* The evangeliary of Sinai known as Theodosius includes among the feast days **september** xer: beginning of the indiction and memory of Saint Symeon the Stylite (SERGIJ, *op. cit.*, I, 91); I could not meet any information on the reading(s) marked for that day. The manuscript is 7ro (or perhaps 755).

his baptism, entering the synagogue, opens the book of Isaiah to this passage: *The Spirit of the Lord is upon me; that is why he anointed me to evangelize the poor, and he sent me to heal those who are heartbroken..., to publish the favorable year of the Seigneur* (1) and applies to himself the prophecy. This solemn declaration of his messianic role through Christ was like the announcement, the "indiction" of salvation and the beginning of its realization. No reading was more appropriate. The feast of indiction thus had its own religious object, which was the beginning of the preaching of Christ, the inauguration of his messianic and redemptive work. It took on the full meaning, the character of the beginning of the liturgical cycle, of the ecclesiastical year (2).

The old *veov g-c-oç* was doomed to disappear. It is already absent from Morcelli's aforesaid *menolog*. It still remains at the same time as the *veov -z-oç* of the indiction in a number of liturgical manuscripts (several of those mentioned above), either on the very date of September 23, if they are monthly calendars, or on the Monday preceding this date, if it is the evangelical readings distributed throughout the weeks of the year. The *veov g'-roç* attached to September 23 even further eliminated the first. The *veov g-roç* of Luke's first Monday remained for a long time, thanks to the interpretation that has been made of it of the equinox. It has been seen above marked in the editions of the *Typicon* of Saint-Sabas of the xvth century (3). We even saw, under the eyes, published in Venice in 1818, a liturgical evangelist who, at the beginning of the readings of St. Luke, bears in large title letters on three lines this indication: Τῆς ἡμέρας τῆς ἑβδόμης τοῦ ἔτους (.), εὐαγγελίου τοῦ ἁγίου Λουκᾶ. I believe that this is the last evangelical to mention such a reference. It must have been realized that this wording was not understood. What could this Monday of the New Year be like? So it was replaced and we see from now on in the later evangelists only the following formula: Τῆς ἡμέρας τῆς ἑβδόμης τοῦ ἔτους (.), εὐαγγελίου τοῦ ἁγίου Λουκᾶ.

1) (PC' ilfrEci4 T01 5 a-rocupdû xuptcx.4v, that is to say the Monday following the first Sunday after the Exaltation of the Cross (4). Some evangelicals, even, pass without transition and without special access from the Sundays of Matthew to the Sundays of Luke and count all these Sundays as Sundays after Pentecost, as do the Latins (5).

It is time to conclude. From all the data gathered here, some already known, others presented for the first time, and all linked together, it follows, in the first place, that the beginning of the Byzantine indiction began, originally, after the day of September, and moreover, that everything contributes to fixing the date at the 23rd of this month. This first usage was embedded in the liturgical calendar at the time when it was organized, and that is why it has long kept the memory. When the meaning of this *veov gTOç* of September 23 was lost, the *veov ç r oç* attached to this date was explained by the feast of the Conception of the Baptist, and the *veov g7,0C*, evangelical readings beginning around this date by the equinox, explanations which, at first glance, could seem both satisfactory, but have no connection with the original institution. As for the 1 of September, which succeeded September 23 as the beginning of the indiction and the beginning of the calendar year, it also became the beginning of the ecclesiastical year, when it was made a religious holiday by attaching to it the memory of the first preaching of the Savior.

(1) I, ue, IV, 16-22.

(2) The same feast of the "beginning of the preaching of the Lord" is also attested in the West, among others by a review of the *Martyrologe hieronymian* (mss. des vñe et ñce siècles) (AA SS Novembris, t. II, *pars posterior*, p. 222-223. It is marked on May.

(3) See above, p. 196, n. 3.

(4) Thus in the editions that are within my reach: Venice 1873, marked 4th ed.; Athens, 1854; Athens, 1895; Athens, 1907. I see the same formula in the Slavic evangelical of Moscow, 1904.

(5) Ἰερόν ἐκ Χ6γ Lov, Varna, 1895 (the Sundays of Luke are however numbered in the margin); Νέα 71 4p τςç çsi 1) votInç tepdt, Heraclea of Crete, 1914 (where the numbering of Sundays of Luke is omitted); similarly in the Slavic Evangelary of Moscow, 1920.

If we now ask to mark precisely when the transfer of the indiction took place on September 1st, we can indicate a *terminus ante quem*, thanks to the *Syriac Life of Saint Symeon the Stylite*. This *Life* places the death of the saint on September 2, 459, at the end of the twelfth and at the beginning of the thirteenth indiction, which means an indiction starting from September 1. It is not, however, in the year 459 that we will fix the *terminus ante quem* of this method of calculation, because the author was able to conform to the established usage of his time and probably had to do so, because to act otherwise would have baffled the readers for whom the feast of the saint was celebrated annually at the beginning of the indictional year. But nous appeal to the note that ends the *Life* in the very old Syriac manuscript of the Vatican: "This book of the triumph of the holy lord Symeon was completed on the 17th nisan, Wednesday, of the year 521 according to the calculation of the Antiochians." According to synchronism, this year corresponds to the year 474 AD (i). At that time, the hagiographer was already using the new style of indiction. We therefore have here an indisputable *ante quem terminus* for the transfer on 1 September. One can press more by application to this operation the remark that Gl. Downey made for the change of the beginning of the year in Antioch, namely that the new way of dating the indiction had to begin at the opening of an indictional period (2). Between 458 and 474, it is the year 462-463 that opens the period. September 1, 462 is thus presented as the one who inaugurated the new style (3). And it is perhaps also in this year that Antioch will have aligned its calendar year with the indiction now set for September 1st. The two measures were expected and called each other; they had to be taken together, for it is not to be believed that Antioch had abandoned its traditional *caput anni* for a date as inconvenient as 23 September. I imagine, moreover, that this alignment was not the only one, but had to be part of an overall reform which also reached other local calendars much less important than that of Antioch.

Reduction rules. — To know the indiction of a year of the Byzantine era starting on September 1, divide this year by 15. The rest marks the indiction. If there is no rest, this 51st year is in the 15th indiction. Examples: $680^{\circ} 1 = \text{ind. } 5$; $6850 1 = \text{ind. p. } 15$.

To know the indiction of a year of the protobyzantine era (beginning March 21), do the same operation, but the result is valid only for the time from September to March 20. For the other part of the year, from 21 March to September, subtract from the result a one unit. Example: $6800 - 15 = 6785$ (September to March 21); $5 - 1 = 4$ (March 21 to September).

To know the indiction of a year of the Alexandrian era, do the same operation, but modify the result according to the case. For authors who begin the year of the Alexandrian world at the beginning (August 29), it is necessary to add to the result a unity, taking into account obviously the difference of 3 days that there is between the Byzantine year and the Egyptian year. For authors who begin the year of the Alexandrian era on March 25, we must add a unit from March 25 to September 1, and

2 units from September to March 25. Examples: $\frac{6800}{15} = \text{ind. } 5 - 1 = 6$ (from March 25 to September); $\frac{6800}{15} - 2 = 7$ (from September to 24 March).

To know the indiction of a year of the Dionysian era, it is enough to add to the number of this year the number 3, and then divide by 15. The rest gives the indiction. If there is no rest,

(s) H. LIETZMANN, *Das Leben des heiligen Symeon Stylites*, p. 228-229 (Text und Untersuch., 32, -1).

(2) Gl. DOWNEY, art. cit., *Byz.*, 15, 1940-1941, p. 42, n. 6 continued.

(3) the synchronisms established by the *Chronicon Paschale* for the great fire of Constantinople in 464 give us the first example of the new calculation: September 2, indiction 3, Wednesday = September 2, 46 F.

the indiction is the 15th. This result applies only for most of the year, i.e. from 1 January to September. For the time from September to 1 January, a unit must be added, because a new

indiction has begun. Example: 954: $954 \div 3 = 318 \text{ R } 1$ (from 1 January to September); $954 - 15 = 939$

$12 + 1 = 13$ (From September to 31 December).

The Byzantine indiction was in use in the papal chancellery from the fifth century until 1187. It was also in southern Italy in the states or principalities under Byzantine domination or influence. Thus, at the court of Charles of Anjou (1) and at Amalfi (2).

3. Bede's Indiction

The indiction of Bede, also known as *caesarean section*, *imperial* or *western*, begins on 24 September, which precedes by three months and seven days the first Of January of our computus. This author speaks of it as a known thing and without mentioning in any way that of the first September in use in Rome of his time. However, it is not seen applied before him. The authors seek to explain its origins. Fr. Rühl (3) thinks of some predecessor of Bede who wanted to replace the pagan date of September by a Christian date, and to whom 24 September, the feast of the Conception of St. John the Baptist, the first of the evangelical mysteries, seemed the most suitable for this. According to Giry (4), the Anglo-Saxon computists wanted to approximate the indiction of the September equinox, which they fixed, by false calculations, to the 24th. These authors assume that indictions were in common use in England. However, the cases that we encounter are very rare and do not predate Gregory the Grand. The latter, certainly, used the Byzantine indiction of the first of September, but in none of his letters which Bede may have known and which he quotes, it is possible to identify this beginning. The use makes indiction in the charters pointed out by Ch. W. Jones does not allow it either. This author therefore thinks that it is to Bede himself that the date of 24 September should be attributed, not in the sense that he would have invented it, but in the sense that he will have found the indication of it in a text by Saint Ambrose. This is the passage of the treaty *De Noe et arca* where are put in parallel the month of March which is among the Romans the first month, because it contains the equinox of spring, beginning of the year, and the month of September where the year also begins, according to the current usage of the indiction. The parallel with the beginning of the year at the March equinox will have brought to the conclusion that the indiction at the September equinox has been concluded (5).

One can also make a supposition which, moreover, does not contradict the previous one and can agree with it. We know of manuscripts that have preserved the state of very old calendars. Bede may have known the same. He would therefore have had so as to see a Roman calendar in which were also inscribed oriental dates, as can be seen in the Manuscript of Florence (*Plut.*, xvi, 39) (6), and which marked, in front of September 23, the beginning of the indiction. Either by getting the wrong line, or rather by estimating a scholar to whom this date said nothing, while the date

(1) Carlo DE L'ELLIS, *Regesta chartarum Italiae, Gli atti perduti della cancelleria angioina*, Parte I, vol. II, see p. 169. an example of the indiction starting on September.

(2) Examples can be found in Fr. PANSA, *Isioria dell'antica repubblica d'Amalfi*, Napoli, 1734.

(3) 121SL, 172.

(4) GIRY, 98.

(5) Ch. W. JONES, 382-384. The text of Saint Ambrose: *septimus autem mensis secundum is qui september dicitur computatur, quia etsi a septembri mense annus videatur incipere, sicut indictionum praesentium usus ostendit..., vere lamen, ex quo plenior gratia se incipit demonstrare, ex eo anni origo subducitur, is decisive neither in favor of September 1st, nor in favor of the 24th, autumn equinox.*

(6) art. Florence, t. V, col. 1791-1794, *Dict. d'arch. chrét. and liturgy*.

neighbor, September 24, represented the equinox, beginning of season, he will have reported on this date the indiction put on the 23rd. And from there would come the indiction that he indicates in his treatise.

Whatever its origin, it was to Bede that the indiction of 24 September owed its fortune. Accredited by the authority of this scholar, it soon settled in the calendars, that of Florence above named, around 817, that of Reichenau, in 850 (i). It was then found natural to use it as a dating element in the chancelleries. This was done in England, the homeland of Bede, at the Carolingian court (after Louis the Pious), at that of the emperors of Germany from the tenth to the tenth century (912-1378) and the German bishoprics from the middle to the thirteenth century, in France, from the xith to the xiiith century, at the papal court under Urban II (1088-1099), and again from 1147, in competition with other indictions (2).

Reduction rules. — Like the Byzantine indiction, Bede's indiction anticipates the year of our computing and is therefore calculated in the same way, taking into account naturally the date of September 24 which is its beginning, that is to say by increasing the indiction of an element to

$$\frac{1150 + 3}{15}$$

leave from that date until 31 December. Examples: $\frac{1150 + 3}{15} = 76$ — 13^e indiction (from 1^{er} January to

4. Genoese Indiction

This is the indiction of Bede, but delayed by a year, that is to say that it begins on September 24th which follows by 9 months 23 days the 1st January of our computus. It is therefore necessary, to calculate it, to reduce by one unit the result of the operation made on the indiction of Bede. Or, by operating directly, remove a unit from the rest of the division by 15 from January 1 to September 23, and not

September 23); [$\frac{1150 + 3}{15} = 76$] 4th indiction (from September 24 to December 31). subtract anything

on 23 September); $\frac{1150 + 3}{15} = 76$ (without

from September 24 to December 31. Examples: $\frac{1250 + 3}{15} = 83$ — i = ind. 7 (instead of 8) (from 1 January 31 December). $\frac{1250 + 3}{15} - 1 = 82$ subtraction) = ind. 8 (instead of 9) (from September 24 to

$$\frac{1250 + 3}{15}$$

This system was monitored in Genoa in the half century (3).

5. Roman or papal indiction (4)

It begins on December 25th which precedes by 8 days the 1^{er} January of our computus, or on January 1 itself, depending on whether the beginning of the year is on one or the other of these two dates. It should be noted immediately that the style of 1^{er} janvier only entered the papal chancellery with Gregory XIII, so that for the Byzantine period, intervenes for this indiction the style of December 25.

Employed in Rome in the life and vile centuries, then ousted by the Byzantine indiction, it was taken up again in the tenth century and used until the pontificate of Urban II (1088-1099), except for the pontificate of Nicholas II, which introduced the style of Florence (March 25), a city of which he was previously archbishop. After Urban II, who used Bede's indiction, there was a period of uncertainty and flutter between various styles of indiction, for which we can only refer to the special treaties of pontifical diplomacy.

The Roman indiction was used in Germany concurrently with the indiction of Bede.

(1) GINZEL, III, 151-152.

(2) GIRY, 99; GINZEL, III, 152.

(3) GINZEL, III, 154; GIRY, 99.

(4) GINZEL, III, 152-153, A. DE BOCARD, *Manuel de diplomatique française et pontificale*, I, 310, 308.

6. Local indictions

Various cities begin their indiction in a manner analogous to the Roman indiction, with their respective calendar years. We have already indicated the indiction of the Florentine style, introduced to the chancellery by Nicholas II (beginning on 25 March) (1). There is also that of the style of Siena (beginning on September 8), in use in the xllle century (2), that of Cologne (beginning on October, mye century) (3). For the various styles, see Dionysian era.

7. Indictions mentioned by former authors

A) *The indiction of Antioch.* — This indiction is mentioned by the *Chronicon paschale* (4), which makes it begin on **September 49BC**, in the first year of the era of this city. Between this date and September 312 (it is in September that the Constantinian indictions begin),

there is exactly one integer number of indictional cycles: $\frac{(312 + 48) - 3^{60}}{15}$ 24 cycles. That is to-

to say that the two cycles coincide. Ed. Schwartz finds it difficult to take this meeting for chance just at the beginning of the era, and he does not hesitate to see in it the very origin of the indiction said later

Constantinian (5). As it is of indictions as a means of dating that the *Chronicon* speaks *Paschale, zocl cd, 'Atx-c.ot.* it is surprising to find no mention of it for the preconstantinian period either in the writings of this period or in the inscriptions. It is, moreover, strange to see the beginning of this Antiochian indiction assigned to September, when the beginning of the era itself was fixed at 1 October, a date which was not replaced by September until the second half of the fifth century. These reasons must make us consider this Antiochian indiction as a projection into the past of the Constantinian indiction, a projection made when it was noticed that the first year of the Antiochian era was consistent with the first year of this cycle.

B) *The indiction taken from the Alexandrian world era.* — Saint Maximus points out two ways of counting the indictions, one by the years of Adam, the other from the year of their institution (6). The years of Adam refer to the world era, here the alexandrine era. Saint Maximus takes as an example the year 546o. By dividing 546o by 15, as there is no remainder, one obtains the indiction 15. This is the indiction counted by the years of Adam. But the indiction taken from the origin of the institution is one year in afifth. That same year 546o which is indiction 15, according to the Alexandrian era, is indiction i according to the origin. And this one connects to the Constantinian indiction. Between 546o indeed, and 5805, Alexandrian year corresponding to 313, first year of constantinian indiction, there is just a whole number of indictional cycles (5805 — 546o — 345 : 15 = 23 cycles). Saint Maximus adds that to know the indiction according to the origin with the help of the Alexandrian era, it is necessary to add a unity to the years of this era and divide by 15 (7). Let us therefore remember, for the cases that might arise, that there was a calculation of the indiction that makes it work with the years of the Alexandrian era, so that the rest of the division by 15 gives directly the yearborn of the indiction, of an indiction that is lagging by one unit on the Byzantine indiction.

(1) A. DE BOCARD, I, 30S, 303.

(2) GINZEL, III, 154.

(3) *Ibid.*

(4) Ed. Bonn, I, 355.

(5) art. *Chronicon Paschale*, *RE*, III, 2467.

(6) *PG*, 19, 1249 D.

(7) *ibid.*, 1252 AB.

C) *The indiction of Augustus*. — Saint Maximus attributes the origin of the indiction to Caesar Augustus and assigns to him as a starting point the year of the world 5460, which, according to the Alexandrian era, is 15th indiction. According to him, Augustus instituted it in the second year of his reign, which corresponds to that same year 5460, counting it as the first indictional year (1). If St. Maximus' calculation is accurate for the years, his chronology of events is in default. The year 5460, where he places the second year of the reign of Augustus, corresponds to the year 33a.C., when in reality it corresponds to the year 29 BC. There is no doubt that Maximus had in mind the accession of Augustus after the Battle of Actium, but he made a mistake of several years. The indiction of Augustus, affirmed by him, is therefore a manifest error. This error is not his own, because he refers, unfortunately without giving names, to the "historiographers" X.7.-C: (-king4 taTopcoypocyôu'wrog. We know of at least one. It is Hesychius of Miletus who postpones to the victory of Actium the starting point and even the name of the indiction: Kocxe,?, -rott 6th iv&xTLew,-:01)-riCrtV I,VV.X7t(;)V,"Ax'nov viy.-/ (2). He explains the choice of 15 years by the fact that Augustus reigned with Antony until the 15th year. It starts a new period of 15 years. The same origin of the indiction and the same explanation of the name are given by Cedrénus, but this one attributes the institution itself to Theodose. According to him, this emperor replaced, for the numbering of the years, the Olympiads with the indictions and ordered to take the starting point of these from the 15th year of Augustus (3).

(C) JULIAN PERIOD

The Julian period is an imaginary period instructed by Joseph Scaliger to facilitate the reduction of the years of one era to the years of another era. It serves as a common rule to which all refer and in which they compare themselves. This period results from the product of the cycles of the sun and moon and the indiction, namely $28 \times 19 \times 15 = 7980$. The Julian period is 7,980 years. Going back in time, the meeting of the first lunar year, the first year of the solar cycle and the first year of the indiction, the lunar and solar cycles being those of the Dionysian era, takes place in the year 4713 BC. This year is the first of the Julian period. It is only after 7,980 years that this meeting will happen again. Each year of the period will have its own agreement with the cycles (4).

The period is called Julian, because it is Julian years that compose it, with their beginning in the first of January. The first year of our era corresponds to the year 4714 of the Julian period.

This period, very useful for the times before Jesus Christ, is much less useful for the times that follow, where it is the Dionysian era that serves as a common term of comparison.

(1) PG, 1249 D.

(2) Quoted by CONSTANTIN PORPHYROGÉNÈTE, *De thematibus*, II, 8 (ed. Pertusi, p. 92, l. 12-13).

(0) CÉDRÉNUŠ, ed. Bonn, I, 573.

(3) PÉTAU, *De doctrina temporum*, l. VII, c. 7, 8, 9 : ed. Venice, t. I, 355-360.

THE AFTERMATH OF YEARS

B) THE ERAS

We divide the eras into three broad categories.

A) The eras of astronomical computing, which have no employment in public or private life;

B) The political or civil eras, which are linked to a fact of political importance (decisive battle for the fate of one or more kingdoms, annexation of a country, erection into a province, birth of a city or beginning of its autonomy, etc.). Most of them are known only by currencies or inscriptions;

C) Religious eras. They are those whose origin is essentially linked to a religious conception, or which relate to an important event relating to the foundation of a religion, or which are based on a cycle of years regulating the celebration of a religious festival.

A) ERAS OF ASTRONOMICAL

COMPUTING NABONASSAR ERA

Nabonassar IC', the unscrupulous prince of a declining empire, could hardly have founded an era. This is also suggested, as much as the likelihood, by the absence of documents. The most normal thing to think is that the Babylonian astronomers, who found the lunisolar calendar very inconvenient for their calculations, will have, in the time of this king or after him, taken a date of his reign (perhaps at his advent), chosen probably for some astronomical coincidence, to make it the beginning of a computation in solar years. Whatever its origin, this era is known to us today only in its transposition into dates of the Egyptian calendar.

Ptolemy, in whom it is first seen, used it extensively to record his astronomical observations. The starting point of the era is February 26, 747 BC (I Thoth), a Wednesday at noon. This era proceeds in vague years of 365 days and therefore delays by one day every four years, by 5 days every twenty years, by 25 days every hundred years. Its use is not frequent enough in The Christian era for us to have to draw a picture of it. It will be found, until the year 1461 (= 713 p.C.), in Neugebauer's *Hilfsstafeln*, n° 22, pages 25-28, which give the correspondence in Dates for each beginning of the year, and in more detail, but only until the year 1199 (= 451-542 p.C.) in the *Chronologische Vergleichungs-Tabellen*

de Mahler, pages 15-38, which further give it for the first day of each month. Using these tables, we indicate the following benchmarks (from 20 years in 20 years to 1451).

Nab era.	era Dionysian	Nab era .	era Dionysian	Nab era .	era Dionysian	Nab era .	era Dionysian
747	23 Aug 1	1148-51	15 May 400-03	1288-91	10 April 540-43	1128-31	6 March 680-83
1032	13 June 284	1168-71	10 — 420-23	1308-11	5 - 560-63	1148-51	1 - 700-03
1048-51	9 - 300-03	1188-91	5 - 440-43	1328-31	31 March 580-83	1152	29 Feb 704
1068-71	4 - 3'20-23	1208-11	30 April 460-63	1348-51	26 - 600-03	1453-56	28 - 705-08
1088-91	30 May 340-43	1228-31	25 - 480-83	1368-71	21 - 620-23	1457-60	27 - 709-12
1108-11	25 - 360-63	1248-51	20 - 500-03	1388-91	16 - 640-43	1461	26 - 713
1128-31	20 - 380-83	1268-71	15 - 520-23	1408-11	11 - 660-63	1162	26 - 71.1

With the year 1461 ends the Sothiac period of 1 460 Julian years, so that, calculating the era of Nabonassar in Julian years, it is the year 1461 instead of 1462 which corresponds to the year of Christ 714.

We will find in Elijah of Nisibe a table from the years of the era of Nabonassar (said by confusion Nebukadnaser) until the year 2837 (= 2089 AD. J.-C.). It begins at the 1^{er} adar (March) of the Julian year which it marks as the 4th day of the first year of the era; it similarly indicates each year of the era which is its calendar which corresponds to the 1^{er} adar. The author subsequently gives as they appear the concordance with the years of Alexander (= Selucides), the Arabs (Hegira) and the Persians (- Iezdegerd)(1).

ERA OF PHILIP ARRHIDEA

This era is directly grafted on the previous one, that is to say that, proceeding like it in vague years of 365 days, it also begins them on the same day so that the years of the two eras overlap exactly. The Philip whose era bears the name is Philip Arrhideus, the successor of Alexander. And the era is also called "era since alexander's death". The starting point of this era is in 1st thoth of the year 425 of Nabonassar, 12 November Julian 324 BC. The era of Philip thus equals the era of Nabonassar minus 424. To obtain the correspondence of Philip's years with nabonassar's years one can therefore use the table drawn up by Neugebauer (pp. 23-38) for Nabonassar's years by subtracting from them the number 424. But Mahler's table, which indicates Philip's years next to nabonassar's, will dispense with this operation.

The era of Philip was also counted by fixed years. Petau gives an example taken from Al-Battani (Albategnius) (2). We see another in the concordances that Theophanes presents under the year of the world 6232 (= 640 ap. J.-C.). To this year, he matches the year 1063 of Philip. Concordance exists only if we count the era of Philip in the Julian years. Counting by wave years we would have 1064 (= nabonassar era 1488).

JULIAN ERA OR JULIUS CAESAR

It is necessary to link to the eras of computing the so-called Julian era or Julius Caesar. Instituted by this prince, it has as its starting point the reform of the calendar that is due to him. This took place in the year 45 BC. It is therefore necessary to subtract 45 years to arrive in the Christian date

(1) *Eliae metropolitae nisibeni opus chronologicum*, éd. CHABOT, *versio, pars posterior*, p. 23-66 ; I. J. DELAPORTE, *The chronography of Elie Bar-Sinaya... translated for the first time...*, p. 167-256. The latter usefully joined the concordance with the years before and after J.-Ch.

(2) PETAU. *De doctrina temporum*, éd. de Venise, t. II, 122.

Julian year, and on the contrary add 45 years to have the Julian date corresponding to a Christian year. Only one example of the use of this era is known so far, namely in Censorin, which refers to it as *anni Juliani* (*De die natali*, c. 21).

(B) POLITICAL AND CIVIL ERAS

We distinguish them into: 1) Eras of Empires; and 2) Eras of cities and provinces.

1. ERAS OF EMPIRE

Alexander the Great did not found an era of empire. There are, however, eras that date back to his reign. By coins of Tyre and Achen (= Ptolemaïs), we know an era of Alexander in *Phoenicia*, which starts from the autumn of 333 BC and is linked to the victory of Issos (November 12, 333) (1). By bricks with inscriptions, we know another era of Alexander in *Babylon*, which starts from the 1^{er} nisan 330 BC and is related to the capture of Persepolis (January 330) (2). This era is also seen in a group of coins of the Parthian king Mithridates 1 found at Susa. They carry the date 191-139 BC and were issued after Mithridates conquered Babylonia (3).

SELEUCIDERA

This era is the first of the eras of empire. It takes its name from Seleucus 1 Nikator, founder of the Seleucid dynasty. A document dated the year 8 of this era suggests that it was Seleucus himself who created it to commemorate his triumphal return to Babylon after the victory of Gaza and mark the beginning of his sovereign power (312 BC). The starting point was placed at the beginning of the Macedonian year in autumn, 1^{er} Dios 312 BC (October). However, for Babylon and Chaldea, whose year began in the spring, the starting point was postponed to Ter Nisan 311.

This era is still referred to by other names:

Age of contracts, among the Jews, because of its legal character;

Era of the Greeks or *era of Alexander*, among Syrian Christians and among Arabs. The era took the name of Alexander because of his immense prestige and because he was the founder of the Empire of the Greeks (4);

Era of the man with two horns, designation very common among the Arabs. The man with two horns, the *bicornu*, is a nickname of Alexander which "comes to him from the ram horns of Zeus Ammon which appears on the effigy of the conqueror engraved on coins struck by Ptolemy Soter and Lysimachus" (5).

Other less common names:

Years according to the Chaldeans (Ptolemy, *Almagest*, IX, 7 and XI, 7);

Years of Greek rule (I Macch., I, 10);

Years of the reign of the Assyrians (Josephus, *Ant. Iud.*, XIII, 6, 6);

Years of the Syromacedonians (*Chron. pasch.*).

(1) J. ROUVIER, L'ère d'Alexandre le Grand en Phénicie, *REG.*, 12, 1899, 362-381.

(2) J. OPPERT, Alexander the Great in Babylon, *CRA I, XLII*, 1898, 413-446.

(3) ALLOTTE DE LA FUYE, in Mémoires de la Mission archéologique de Perse, t. XX, 1928, *Numismatique*, p. 28-29.

(4) F.M. ABEL, art. cit. in the following note, p. 204.

(5) F.M. ABEL, L'ère des Séleucides, *RB*, 47C année, 1938, n° 2, 198-213; 204, note I.

The era of the Seleucids was official throughout their empire. It was then preserved wherever a local era did not prevail. It was used in the Middle Ages by Syrian and Arab writers. It still remains today as an ecclesiastical era for the Nestorians and Jacobites. It diversifies according to the schedules in which it is seen to develop:

1) *Seleucid era with the lunsolar calendar*. — It is the one that was instituted for the whole kingdom and that began either on 1st dios (October) 312 BC for Syria and Asia Minor, or on 1st nisan (April) 311 for Babylon and Chaldea. The latter mode was followed by the Jews during their captivity and brought by them to their homeland; it is the one noted in *I Macch.*, I, 10. Neugebauer (p. 45) gives the table of the era according to this calendar from the year 396 (= 85 of Christ) until the year 1969 of Christ.

The lunsolar calendar, in the countries conquered by Rome, gave way to the solar calendar with fixed years of the Julian reform. It is not possible to say when he ceased to be in use in the land of Babylon, his last refuge.

2) *Era of the Seleucids with the solar calendar with wave years*. — The Persians under the Seleucids kept their computus in wave years of 365 days, and counted the new era in this computing. The starting point was placed at home also at the beginning of the year, namely the 1st Ferverdin, which was then on February 7, 311 BC. It is according to the era thus calculated by vague years that the sources used by James of Nisibe counted the reigns of the Sassanid kings (1). The beginning of each year will be obtained by using in Neugebauer (table 24, p. 32-35) the table of the era of Iezdegerd, from the year 518, which, for the calendar, reproduces year I of the era of the Seleucids. At this era of the Seleucids was superimposed with the same calendar the era of the Arsacids, then celle of the Sassanids, that that of Iezdegerd only continued (see these eras below).

3) *Seleucid era with the fixed-year solar calendar*. — It is used in the inscribers and among writers of the Christian era. The beginning of the fixed Macedonian year being in the first of October, it was in the first of October 312 BC that the beginning of the era was postponed. In the second half of the fifth century, the Greeks replaced the first of October with the first September in order to coincide the beginning of the year with the beginning of the Byzantine indiction and thereby modified the starting point of the era. Syrian and Arab writers kept the first of October.

Rules for reducing the secular years after Christ:

For dates from October 1 (or September 1) to December 31, subtract the number 312. Example: November 640 Sel. = 640 — 312 = November 328.

For dates from 1 January to 1 October (or 1 September), subtract 311. Exemple : March 640 Sél. = 640 — 311 = March 329.

ARSACID ERA, SASSANID ERA, IEZDEGERD ERA

The era of the Arsacids. — This era began when Arsaces, having escaped around 250 BC from the power of the Seleucids, founded the kingdom of the Parthians. A large number of Babylonian tablets bear a double date: that of the Seleucids and that of the years of Arsaces, with a constant difference of 64 years. It is quite likely that the Babylonians continued to use the lunsolar calendar, while the Persians used the solar calendar with vague years. According to the latter, the starting point of the Arsacid era is the 1st Ferverdin corresponding to January 22, 248 BC (= 64 of the Seleucids).

The era of the Sassanids. — A rebellious prince, Ardair, seized power and founded the Sassanid dynasty. From there begins the era of the Sassanids (with vague years). The starting point is the

(1) NÖLDEKE, *Geschichte der Sassaniden*, 406-407, 415.

1st Ferverdin corresponding to 26 September 226 AP. J.-C. I do not know how Neugebauer (1) could say that the era of the Sassanids never existed, while Ideler (2) cites an example from the Acts of the Martyrs published by Assemani, where it is used in this form: "year of the reign of the Persians 117". The synchronisms that accompany it clearly indicate the era of the Sassanids.

The beginning of each year of the Sassanid era is obtained by consulting the Nôldeketable, page 436, which indicates **son change every four years**, or by consulting the Iezdegerdtable, in Neugebauer, table 24, beginning in the year 1056, which corresponds to year I of the Sassanids.

The era of Iezdegerd. — **This era continues the previous one**, also with vague years. That the name of this unfortunate prince, the last of his dynasty, is attached to an era is explained neither by an act of his authority, nor by his personality, but by the fact that the official acts **are always dated to the years of the reigning sovereign**, and Iezdegerd having had no successor, it is his name that continued to be used after his fall, no doubt out of loyalty to the dynasty and as an expression of national sentiment. The starting point is not taken from the very day of the advent of Iezdegerd, **but according to the traditional custom of counting the years of reign from the beginning of the year**, 1 Ferverdin. The era of Iezdegerd thus begins at 1^{er} Ferverdin corresponding to 16 June 632 ap. J.-C. The beginning of each year of the era can be found in Neugebauer (Table 24, pp. 32-36). The same author also gives the years of this era in the lunisolar calendar, although he considers such a use unlikely (Table 24 A, p. 35).

On the era of Iezdegerd, see the Byzantine texts published by Louis H. Gray, in *BZ*, I I, 1902, 468-472.

DJELÂLEDDIN ERA

The reform of the calendar and the era instituted by the Seljuk Djelâleddin Melik Sâh (1073-1092) during the 7th year of his reign were intended to end the calendar and the vague years of the era of Iezdegerd, **by fixed years conforming to the course of the sun**. This is not by a simple application of the Julian system, where the intercalary year takes place rigidly every four years, but by a special system where it is sometimes postponed to the 5th year. The law of these intercalations has not yet been identified. Schram did, however, set a table for the years of this era, where, according to a succession that seems probable to him, he indicates which are the spacers by marking them with an asterisk. Neugebauer reproduced this table (Table No. 17, p. 16).

The era of Djelâleddin begins in the year 448 of Iezdegerd, at the spring equinox. It was the 19th ferverdin. It was made the 1^{er}. The corresponding date in the Julian calendar is March 15, 1079 (1^{er} Ferverdin).

2. ERAS OF CITIES AND PROVINCES ERA OF THE

OLYMPIADS

The era of the Olympiads can be linked to the eras of cities and provinces because of the city where the quadrennial games were celebrated and from which they took their name.

The Cycle of the Olympiads took place for several centuries without creating an era. It was no more thought than it was later thought of creating an era of **Julian** tetraeterides. It is at

(1) NEUGEBAUER, *TER*, 37.

(2) IDELER, II, 554.

chronographs that the first idea came from. They saw in the regular conduct of the quadrennial games a firm and convenient way to situate the historical events they were recounting. The first who surely used this computation is Timaeus (c. 300 BC). He was followed by Eratosthenes, his younger contemporary, whose influence was decisive.

Although Theodosius had suppressed the Games of Olympia in 394, the era nevertheless continued to be used by various subsequent chronographs, such as Hydatius, the author of the *Chronicon paschale*, James of Edessa, Elijah of Nisibe, Michael the Syrian (in his tables), Samuel d'Ani, who led the Olympiads until $489.2 = 626$ of the Armenian era (1177 of the Dionysian era).

The beginning of the Olympic year was at the time of the Games, at the full moon following the summer solstice (the games and solemnities went from x to $xvle$ day of the moon), that is to say under the terms of our calendar towards the 1^{ez} July. The starting point for the Olympiad era, i.e. the first year of the first tetraeterid, was at the beginning of July 776. This first year is 776/775. Not all chronographs follow this real calculation. There may be a gap of two or even three years between them. And that is why this era, found in isolation, is of little use. It is only fully so in the work followed by an author whose system has been identified. It provides at least an approximation when no other dating element accompanies it.

In our concordance tables, the Olympic year begins at the beginning of July of the corresponding Dionysian year. It covers the second half of this year and the first half of the following year.

Reduction rule

N meaning the number of Olympiads and A meaning the number of the years of the period, we will have the formula: $[(N - I \times 4) - I - A] - 776$ — year after Jesus Christ.

Example: Olympiad 293.3 — $[(293 - 1 \times 4) - 1 - 3] - 776 = 395$ A.D. J.-C.

Armenian historians find a computation of the Olympiads from their era. Example in Dulaurier, pages 253, 255. These Olympiads must be counted in Julian years. They also coincide with the Julian tetraeterides.

ERA OF THE FOUNDATION OF ROME

The Roman era or era of the foundation of Rome (*Urbis conditae, ab Urbe condita, post Urbem conditam*, abbreviated. *U.C.*) commonly used is the one that Varron had accredited by his writing *De gente populi romani* (in 43 BC). It was 753 BC. It is the only one known to columnists. The city was founded according to tradition on April 21. In practice, historians neglect this precision and proceed by counting the years of the era from January. The year 754 of Rome thus is equivalent to year I of the Dionysian era.

There is another Roman era, called Capitoline. It is based on the tables of the consuls and triumphs engraved at the Capitol around the year 30 BC. It is one year behind the Varron era. It is found in a few inscriptions and rare authors.

Reduction rule

When the year exceeds 753, this number must be subtracted to have the date after Jesus Christ. When the year is less than 754, it must be subtracted from this number to have the date before Jesus-Christ.

Examples: $880 \text{ U.C.} = 880 - 753 = 127$ A.D. J.-C.

$740 \text{ U.C.} = 754 - 740 = 14$ BC

The authors who have made constant use of this era are Orose and the compiler of the *Historia Miscella* (until Anastasius I).

UPPER MENIA AND DACIA ERAS

These two regions each have an era that dates from their constitution as Roman provinces (1).

The era of *Upper Mesia* is *January 239 A.D. J.-C.*

The era of *Dacia* is *246 AD. J.-C.*, after the middle of summer, without more precision.

MACEDONIAN ERA

There are two eras of the province of Macedonia.

One, starting from the Roman conquest, begins *in the autumn of 148 BC. J.-C.* When the solar calendar was adopted, the start was set for October 15. The lowest known date of this era is on an inscription by Olynthes: 18 Dios 470 (= Nov. 322 A.D. J.-C.).

The other, relating to the Battle of Actium (2 Sept. 31 BC), takes as its starting point the beginning of the year in which this event took place, namely *2 September 31 BC*, postponed to *15 October 32 BC.* after the adoption of the solar calendar according to the Julian reform. This era is named in the inscriptions, era of Augustus, appellation after the grant of the title to Octavian by the Senate, in 27 BC (2). It is quite possible, probable even according to M. N. Tod, that it was then that the era was created. This same author shows by several very clear examples that in the inscriptions one must understand g-C (4 asôctaT6v and not g-roç Esôcw-roU (3).

About a *local era* for Philips from 30 BC, which Carcopino deduced from the inscription of Selian-Mesorema, see last state of the question and bibliography in P. Lemerle, *Philippe et la Macédoine orientale*, 1945, p. 95, note 3. Personally, we would have some difficulty in admitting the establishment of a new era so soon after that of 32 BC and, if there is a colonial era, we would more willingly postpone it to the first colony founded by Antony around the year 42 BC. This is indeed the true beginning of the Roman establishment.

ERAS OF ASIA MINOR

1. Eras common to one or more provinces, or to several cities

Bithynia and Pontus. — These provinces are experiencing an era that begins in the year 297 BC. The origin is probably the declaration of independence of Bithynia. As the months in the inscriptions have Macedonian names, one is justified in believing that the beginning of the year is **in the autumn**. The era thus had its starting point in the autumn of 297 BC. This era was also used in southern Russia. It is seen in a Christian inscription found in Kerè, with the date Dystros 733 (= **March** 437 A.D. J.-C.) (4).

Themon naies also make known another era, namely 233 BC. J.-C. common to the following cities: Apamea, Myrlea, Bithynium, Nicaea, Nicomedia, Bush. It ended when Bithynia became a Roman province.

Proconsular province of Asia: Sulla era. — This era dates back to the conquest of this part of Asia Minor by Sulla. Its starting point is *in the fall of 35 BC. J.-C.*, at the beginning of the year, fixed at the equinox (Sept. 24) after the adoption of the solar calendar, and later transferred to September 23 in **honor of the dies natalis of Augustus**. We believe that the date of 24 September must have been

(1) KUBITSCHKE, *Grundriss...*, 81-82.

(2) On this era, see KunnsenErc, *Grundriss...*, 74-75.

(3) Marcus N. ToD, 'The Macedonian Era reconsidered', *Studies presented to David Moore Robinson*, vol. II, St. Louis Miss., 1953, p. 382-397.

(4) V. V. LATYUW, *Sbornik greieskich nadpisej christianskich vrenten iz jubtof Rossii, ri*)86, p. 88.

precede that of September 23 (see above for the indiction). We find the era of Sulla in inscriptions of Phrygia, Mysia, Lydia, Pisidia, Lycia. His employment lasts until the first century A.D. J.-C. N.B. — The era of Sulla replaced in Asia Minor the era of the Cistophores which dated back to the year 134 BC.

Galatia. — In this region is an era of 25 BC J.-C. It is found in Ancyra, Pessinonte, Tavium (see H. Gregory, *Byz.*, 4, 453-461).

Pont Polémoniaque. — Several important cities, Trebizonde, Kérasonte, Néocésarée, Zela have an era of Oct. 61 A.D. J.-C.

Commagene. — This region, with its capital Samosate, presents an era that starts according to some of 71 A.D. J.-C., according to others of the summer of 72, opinion more likely according to Ginzler.

2. Localeras

Adana: Antiochia ad Sarum: a little after 19 BC.

Aigeai: c. 47 BC

Amasia: October 3 BC, annexation to the Roman Empire.

Amisos: October 32 BC, liberation.

Anazarbos: 19 BC

Augusta: 20 BC

Eirenopolis: around 52 A.D. J.-C.

Epiphaneia: 37 A.D. J.-C.

Flaviopolis: 73 or 74 A.D. J.-C.

Gangra: 5 BC

Komana: 34 or 35 ap. J.-C.

Kibyra: 25 A.D. J.-C.

Mopsouestia: 68 BC

Phazimon — Neapolis = Neoklaudiopolis Andrapa: Oct. 6 BC

Pompeopolis: 7 BC

Sebastopolis = Herakléopolis: Oct. 3 BC

Sinope: two eras: 70 BC. J.-C. and 45 BC. J.-C.

ERAS OF SYRIA, PALESTINE, ARABIA

1. Common to these regions:

That of the Seleucids (see above).

2. Eras common to several cities:

Actiac era or victory (of Actium, 2 Sept. 31 BC). — It is seen on coins of Tripoli and Seleucia of Piraeus, as well as on weights of Laodicea; it starts, taking into account the calendar of these cities, from the first October 31 BC Germer-Durand (*RB*, 8, 1899, p. 5 and 15) sees it in two inscriptions of Gerasa, but the first is reported by other critics to the era 63 BC, thus a Pompeian era (see below).

Era of Alexander the Great in Phoenicia (autumn 333 BC). — It is known from coins of Tyre and Achen (= Ptolemais). It relates to the Battle of Issos (12 Nov. 333) (see above, p. 209).

Arabian Province Era or Bostra Era. — The Arabian Province was erected in 105 AD. J.-C. by emperor Trajan. The era is reminiscent of this event. We hesitate on the starting point between 105 and 106. In a serious probability, this was, in accordance with the province's own timetable, the

22 March 106. The era was used until the Muslim conquest. It is very likely that the calendar did not remain immobile and that it had to postpone the beginning of the year to make it coincide with the indiction to the 1^{er} September (towards the end of the fifth century or to life), which would put from this time the calculation of the era to 1 September 105.

3. Local eras

~~Several of these eras are related to the autonomy granted to various cities, respectively by Pompey and Caesar. Since it was not the same year that all of them received it, one cannot speak of a Pompeian era or caesarean section in the singular, as a common name.~~

Pompeian eras. — It is especially in the Decapolis that the vyleswho received their autonomy from Pompey are found: Abila, Antiochia ad Hippum (= Hippos), Kanatha, Dium, Gerasa, Gadara, Philadelphia, Pella, but it is not easy for all to know the beginning of the era. For Gadara, it is surely the year 64 BC; poyour Philadelphia and Gerasa, it is the year 63 BC. J.-C. For the others, it is undecided, between 64-61.

Outside the Decapolis, pompey received their autonomy and from there created an era the following cities: Antioch: 66 BC, an era that ended when the Caesarean era of this city began (Apamea used the Pompeian era of Antioch); — Arethusa: 64 or 63 BC; — Demetrias of Phoenicia and Dora: c. 63 BC; — Epiphaneia of Cilicia: imprecise date; — Gaza: 6/ BC y.-c., 28 October after the introduction of the fixed year; there are examples of this era up to the sight of the century; — Tripolis: about 64/63 BC. (I).

Caesarean sections:

Caesarean section of Laodicea: Ter Oct. 48 BC

Caesarean section of Ptolemaïs: 47 BC J.-C.

Caesarean section of Gabala: first Oct. 47 or 46 BC. J.-C.

Caesarean section of Antioch. — The origin of this era is indicated by Malalas and the *Chronicon paschale*. Malalas specifies that the starting point is may 20 of the first year of Julius Caesar. In fact, in the inscriptions and among the authors, the années are taken from autumn (1^{er} oct. or 1 sept.). As for the year, the inscriptions and all the narrative sources designate the year 49/48 BC. The starting point of the era is thus from 1^{er} October (or September 4th) 49 BC. Exceptions are some Syriac authors who count from October 48 BC (see examples of this double way in Lietzmann, *Das Leben des hl. Symeon Stylites*, in T. und U., 32, 4, *Chronology*, 228).

In Greek sources, on notes two different dates for the beginning of the year, 1 October and 1 September. The 1^{er} October is the oldest source. It was replaced, in the second half of the fifth century, by the first September, in order to coincide the beginning of the calendar year with the beginning of the Byzantine indiction. The latter mode is that of Malalas and Evagrius, reserving the cases where they would have, for older events, simply reproduced their source.

The oldest document in which this change in calendar is reported is Waddington Inscription No. 2689, *Inscriptions of Lydia*, dated 27 Gorpaios 532, indiction 7 (= 27 Sept. 483 AD). Downey's argument (see above, p. 194), to go back to before 457 ne can be accepted. The oldest witness for the date of 1^{er} sept. is the Syriac ms. of 474 (see p. 202).

In our concordance tables, it is the era of 1^{er} October and 1 September 49 BC. J.-C. that we observe.

(I) H. SEYRIC, *Antiquités syriens*, 42 : Sur les ères de quelques villes de Syrie, *Syrid*, 27, 195(.), 5-50.

Reduction rule

For dates whose monthly calendar is **between** September or October and December 31, the number 49 must be subtracted. For dates whose monthly calendar is between 31 January and 31 August or 3 September, the number 48 must be subtracted.

Era of Cleopatra: 37 or 36 BC — **Related to the deatation of territories in Syria then made to this queen on the part of Antony.** This dating can be seen in coins or papyri of Tripoli, Chalcis, Beryte. The name era is used here in a broader sense (Seyrig, *art. cited*, 43-46).

4. *Other local eras*

Arados: 259 BC J.-C.

Askalon: two eras: 104 BC. J.-C. and 57 BC (Ginzell, III, 48-49).

Balanea (= Claudia Leucas): three eras, the first of which is doubtful: 1^r Around 124 BC. (Ginzell, III, 17, which accompanies him with an *oldicht*); 2^o 37 BC (privileges granted by Antony); 3^o Between 47/48 and 53/54 (according to currencies which do not allow other precision) when the emperor Claude founded the city again under the name of Claudia Leucas (H. Seyrig, *art. cited*, 22-24).

Beryte: 81 BC J.-C. (under Tigrane).

Diospolis: c. 200 AD

Eleutheropolis: 200 BC (March 22 after the adoption of the fixed year).

Gaza: 61 BC J.-C. (October 28 after the adoption of the fixed year). There are examples of this era until the vile century.

Jerusalem: 449 AD Arrival of Eudocia in Jerusalem (see inscription in *RB*, I, 581 and *IV*, I, 133-135, **where the explanation is found**).

Kaisareia Panias: 3 or 2 BC

Kition (Cyprus): 311 BC Destruction by Ptolemy Soter of the Phoenician kingdom of Kition.

Laodicea: in addition to the era of Actium (31-30 BC), this city has known three eras of its own:

- 1) Era of freedom under Tigranes: 81-80 BC;
- 2) Caesarean section: 48-47 (indicated above);
- 3) Era of its erection in metropolis: 207 or 208 AD (H. Syrig, *art. cited*, 26-32).

Lapethos of Cyprus: 269 BC J.-C.

Pella: between 61-57 BC. J.-C.

Philippopolis: c. 247 AD Erection into a colony by Philip the Arab. Just one example: ex-voto dated -rouç npé,r:ou T'iç zaro.4 (Ginzell, III, 52).

Ptolemaic = Akko or Akkho = Akê. Knew in antiquity two common eras and two clean eras:

- 1) Alexander era: 333-332 BC It dates back to the victory of Issos (333)
- 2) Clean era: 174 BC Origin: establishment of the Antiochian colony at Ptolemaïs;
- 3) Era of the Seleucids, introduced to the conquest of Phoenicia by Antiochus III;
- 4) Own era: 47 BC J.-C. (caesarean section era) (1).

Rhosos: from 42 to 40 BC Era of freedom due to Antony (H. Seyrig, *art. cited*, 32-34).

Seleukeia of Piraeus: 109 BC J.-C.

Sidon: iii or II() *AV*. J.-C. (1 January after the reform of the calendar on the **Roman mode**) (2).

(1) On these eras see J. ROUVIER, Ptolemy-Ace. His names and eras..., *RB*, 8, 1899, 393-408.

(2) A. ALT, Zur Zeitrechnung der Tempelinschriften des Hermonsgebiets, *Zeitschr. des deutschen Palaestina-Vereins*, (2. 1939, 209-220.

Tiberias: 17 A.D. J.-C.

Tripolis: in addition to its Pompeian era of about 64 BC. J.-C. and the era (Syrian reigning years)

of Cleopatra, this city experienced an era of freedom granted by Antiochus IV: between 105/104

and 95 BC (H. Seyrig, *art. cited*, 38-43).

Tyros: knew in antiquity two common eras and two proper eras:

- 1) Era of Alexander: 333-332. Goes back to the victory of Issos (333) (1)
- 2) Clean era: 274 BC Origin unknown. The era is attested by a double-dated inscription (2);
- 3) Era of the Seleucids, introduced to the conquest of Phoenicia by Antiochus III;
- 4) Clean era: 126 BC The origin in eis the autonomy of the city. The beginning of the year, after the adoption of the fixed year, is 19 October. This era is found in the inscriptions until the end of the century life (3).

ERAS OF EGYPT

Alexandria. — This city began a new era, known as the Augustan era, with the adoption of the fixed year. It begins at the 1st Thôth = 30 August of the year 30 BC. In reality, the first thôth of the vague year arrived on August 31. It was put at the 30 and made the 6th epogonee (the intercalary day every four years). In common years, the 1st thôth is August 29th. The name "years of Augustus or augustus (*anni Augustorum*, Censorin *De die nat.* 21, 8) could not come until after Octavian had received from the Senate the title of Auguste (January 16, 27 BC). Censorin places the era of the Augustus two years after the Alexandrians.

Oxyrrhynchos. — This city employed several eras. "There were two main ones, starting from:
« 324 (designation of Constantius II as Caesar), and of:
« 355 (designation of Julian as Caesar).

« But other eras have been found in papyri, beginning in:

- 306 (early reigning years of Constantine I);
- « 316 (designation of Crispus, Constantine II and Licinius as Caesars);
- 333 (designation of Constans as Caesar);
- 351 (designation of Constans Gallus as Caesar).

« Two others, starting from 340 and 343, do not allow the reasons for their adoption to be defined as well (see P. Oxy. XIV, p. 30).

« The eras from 324 and 355 were used until the Arab invasion (which is quite curious for that of the Apostate in the middle of the Christian period). The others were only a few years, that of 306 no longer appears in the documents after 360. As these dates are practically parallel to the reigning years, they start from the first thôth (29 August).

« *bibliography*. — U. Wilken, *Grundzüge der Papyruskunde*, p. LXI, and especially P. Oxy. XIV, p. 27 sq. (see again *PSI*, 707 intr.; 781, 820 intr.).

« To my knowledge, the texts have not given any similar mention in other cities than that of Oxyrrhynchbone. »

[Communication from G. Bataille, February 24, 1954.]

(1) J. RouwER, The era of Alexandria the Great in Phoenicia, *REG*, 12, 1899, 362-381.

(2) Ch. CLERMONT-GANNEAU, *Recueil d'archéologie orientale*; I, Paris, 1888, SI-84.

(3) J. ROUVIER, *art. cit.*

ERAS OF AFRICA

Era of the province of Mauretania (Caesariensis, Sitifensis; there is no evidence for the Tingitane). — Goes back to the annexation to the Roman Empire. It starts from 1 January 40.

Eras of Carthage. — Two eras:

- 1) 439 A.D. J.-C., capture of Carthage by the Vandals (1); several examples in Courtois, *Les Vandales et l'Afrique*, Appendix II, p. 367 following; this author points out that this era, in the documents, does not go beyond the reign of Genseric (2);
- 2) 1^o septembre 533, to mark the reconquest by the Byzantines; example: *CIL*, 5262 = *IL. Al.*, 83.

ERAS OF SPAIN

It is calculated from 1 January 38 BC. It is seen in the inscriptions, and it is in common use among the chroniclers of the peninsula. Its use extends until the tenth century and even in Portugal until the fifteenth when it was abandoned in 1422 by King Joao I. In our concordance tables, we stop it towards the end of the century city.

The origin of this era is unknown. Inscriptions from the Cantabrian region bear these dates: *er [ae] CI* or *CL* and *e anno CCLI* (*CIL*, II, 5729 and 2833). Kubitschek (3) categorically links them to the era of 38 BC. Others, including Ginzel, rattaché them, as well as all those that predate the middle of the fifth century, to an unknown era and explain the era of 38 BC as a construction after the middle of the fifth century, established on the basis of a Paschal cycle. This hypothesis seems fragile and benefits only from the ignorance where one is of the occasion that is at the origin of this era.

C) RELIGIOUS ERAS

Among the religious eras, some have received their starting point from a crucial event concerning the foundation of a religion, or its introduction in a country, if it is an era specific to that country. Others were formed from cycles with a natural basis adopted and adapted in order to regulate the dates of religious solemnities depending on the lunar movement; this is Easter and its procession of feasts. The former can be said to be purely religious, the others, directly cyclical. Others finally participate in this double character: they are almost all the world eras. On the one hand, they maintain the affirmation of a religious idea, the creation of the universe and are also measured on a mystical analogy established between the genesiatic week and the duration of the world of which a thousand years represent a day; and on the other hand, they are calculated on cycles intended for the fixing of Paschal dates, a relationship being recognized as necessary between the creation of the world and the beginning of the first cycle. This role of cycles in the constitution of the world eras, we show it in our First Part for the most important and widespread eras. For the others who are known to us only by mere passing assertion, the evidence, for lack of sufficient data, is not within our reach, but it is to be presumed that they proceed from a similar elaboration.

Historically, the first religious eras that were laid are world eras; then appeared eras with a purely cyclic base; and finally the eras based solely on religion. That is the order we will follow here.

(1) *Mémoires de la Société nationale des antiquaires de France*, 78, 1934, p. 69-73.

(2) Chr. COURTOIS, Les monnaies de Gildo, *Revue de Numismatique*, 5^e série, 16, 1954, p. 71-78, see pp. 73-74.

(3) *Grundriss*, p. 77.

I. WORLD ERAS

Referring to our Part I for proofs of origin and the development of world eras, we merely reproduce here the conclusions, adding indications that it did not contain.

World eras are eras established either by Jews or by Christians. Those of Christians are generally taken in relation to the birth of Christ. Almost all place this birth after the year 5000 of creation, most often in the middle of the sixth millennium, namely the year 5500 or 5501, or close to this date depending on whether the cycle adopted and the requirements of the date of the Passion allow. We also find, but quite rarely, the duration of the world until Christ carried up to 6000 years. It is perhaps worth noting, in order to avoid any confusion, that the numbers of years indicating the duration of the world before Christ in the different chrono graphs do not represent for all the same real value, because the calculation does not correspond to the same scale of time, some placing it higher and others lower. For example, the year 5500 for the Byzantines means the year 9/8 BC. J.-C., while among the Alexandrians, it means the year 8/9 A.D. J.-C., having between them a difference of about 16 years. This difference is made noticeable in our table, page 30.

We give below the list of the various world eras, following them, when it is known, by the Christian era that accompanies it.

Note. — By world era we mean the relationship of antiquity of the world in relation to the year of the Dionysian era, and by Christian era accompanying a world era we mean the date of the birth of Christ expressed according to that era.

Clement of Alexandria: 5591 BCE (5592 = I dionys.). Birth of Christ, 5590 (see hypotheses of correction, pp. 6 and 24).

Africanus: March 5501 BCE (5502 = I dionys.). Christ's Birth: 5501. An era consistent with the Anatole cycle of 258, which he probably knew before Anatole himself.

Hippolyte. By deduction of his chronicle and his Easter table (cycle of 112 years). Old calculation: 5503 BCE (5504 - I dionys.). Christ's Birth: 5502. Recalculation: 5501 BCE (5502 = I dionys.). Birth of Christ: 5500, according to the affirmation of the Commentary of Daniel.

Eusebius: 5200 BCE (5201 - I dionys.). Christ's Birth: 5199. It was this era that dominated in the West, thanks to the translation of the *Chronicle* by Saint Jerome, and also among the Armenians. See (Part I, c. I) my hypothesis on the cyclical origin of this era.

Alexandrian era (major) of Panodorus: March 5493 AD (5594 = I dionys.). Christ was born: 5494. Era formed on the cycle alexandrin of 284/5 with addition of a precyclic year.

Alexandrian era (minor) of Annianos: March 25, 5492 BCE (5493 = I dionys.). Christ was born: March 25, 5501. Era formed on the same cycle, but without precyclic year. It is this era that is commonly called Alexandrian.

Reduction rules

1) For the era of Panodorus: from I January to March 20, subtract 5492; from March 21 to December 31: delete 5493.

2) For the era of Annianos: from January 1 to March 24, subtract 5491; from March 25 to December 31, delete 5492. Later: from 1 January to I Thôth (29 or 30 August) or to I Sept., subtract 5492; from I Thôth or from 1 [Sept. to](#) 31 Dec., subtract 5493.

Protobyzantine era (*Chronicon paschale*): **March** 21, 5509 BCE (5510 — = I dionys.). Christ's Birth: 5507. Era built on the Constantinople cycle of 344.

Byzantine era: a) Originally: March 21 5508 BCE (5509 — I dionys.). Birth of the Christ: first, date borrowed from the Alexandrians, then probably 5506. Era built on the Constantinople cycle of 345; b) In the following: 1 September 5509 BCE (5509/5508 --- I dionys.). Birth of Christ: various dates: 55⁰⁰, 5504, 5505, 5506, 5517. It is this era that is commonly called Byzantine.

Reduction rules

1) For the protobyzantine era: from January 1 to **March** 20, subtract 5508; from **March** 21 to December 31, subtract 5509.

2) For the Byzantine era: a) Primitively: from 1 January to 20 March, subtract 5507 from 21 **March** to 31 December, subtract 5508; (b) Subsequently: from 1 January to 31 August, delete 5508; from **September** 31 to December 31, subtract 5509.

Era of Theophilus of Antioch (*Ad Autolycum*, III, 24 sq.): 5695 at the death of Marcus Aurelius (180). So era of 5515.

Georgian era: 5604 BCE (5605 = I dionys.). Era built on the Constantinople cycle of 344.

Chronograph era of 334 (Frick, *Chronica minora*, I, iii): 5583 BCE (5584 = I dionys.). Era consistent with the 84-year cycle of 298.

Era of *the Origo generis humani* (Frick, *op. cit. cit.*, I, 152): ? — Birth of Christ: 5580. Passion: 5510. Era of Hilarianus (wrote in 397) (Frick, 170-171): 5501 BCE (5502 = I dionys.). Passion:

5530 (probably born in 5500). 112-year era in accordance with Hippolytus (new calculation).

Cf. Gelzer, II, 121-129.

Chronograph era of 452 (Frick, 181): 5498 BCE (5499 = I dionys.). Christ's Birth: 5494; Passion: 5525. Era consistent with the 84-year cycle of 299.

Era of *Consularia Ravennatensis* (Frick, 417, 401): 5505 BCE (5506 --- I dionys.). Birth of Christ: 55⁰⁰. Era consistent with victorius' 19-year cycle by taking it to saltus *lunae*. Era of the Carthaginian computist of 449 (see I^e Part, pp. 21-22); 5492 BCE (5493 = I dionys.). Era based on its own cycle of 84 years.

Era of Malalas (ed. Bonn, 428; ed. Schenk Graf y. Stauffenberg, Stuttgart, 1931, II) and a certain Hesychius (*Chronicon paschale*, ed. Bonn, II, 116): (5969)-5968. Christ was born: 5967; Passion: 6000. Malalas attributes this era to the "Clely, Theophilus and Timothy chronographs".

Era of Mar Abdio: 5491 (*Ordo officiorum ecclesiasticorum*, vers. lat. de I.M. Vosté: *Codificazione canonica orient. Fonti*, II, 15, 1911, p. 61). Christ's Birth: 5490. Era based on the Aeras cycle.

Some eras of creation are mentioned by various authors, but do not include the birth of Christ. Those that follow, up to and including that of Aphrahat, indicate the years up to Seleucus, that is to say, up to the era of the Seleucids. Several of them can be identified. Our witnesses are Michael the Syrian, Elijah of Nisibe and Barhebraeus (1).

Era of Eusebius: 4888 (Elijah of Nisibe); 4889 (Michael the Syrian and Barhebraeus): this second figure corresponds to the era of Eusebius 5200 BC. J.-C.

(1) MICHEL LE SYRIEN, Cd. CHABOT, I, 116; ÉLIE DE NISIBE, trad. de L. J. DELAPORTE, p.9-15; ISARIIEBR %Et %, trad. de E. A. W. BUDGE, London, 1932, p. 40.

Era of Andronicos (under Justinian): 5072 (Michael the Syrian); 5083 (Barhebraeus); 5172 (Elijah of Nisibe).

Era of Annianos (called Anius by Elijah of Nisibe): 5181 (Michael the Syrian and Elijah of Nisibe); 5180 and 10 month (Barhebraeus). This is the Alexandrian era.

Era of Africanus: 5083 (Michael the Syrian, Barhebraeus). This assumption is at odds with the true era of Africanus, according to which the era of Seleucus begins in 5190 (5501 — 311). Era of George (epoch?): — 5085 (Michael the Syrian); 4929 (Barhebraeus).

Era of Theophilus of Edessa: 5197 (Barhebraeus). Michael the Syrian attributes this era to a few among the Greeks." This is the Byzantine era 5508 BC. Cumont attributed its origin to this chronograph (The Byzantine era and Theophilus of Edessa, *Rev. de Philologie*, 39, 1915, 260-263).

Era of James of Edessa: 5149 (Michael the Syrian, Barhebraeus).

"Ere qu'ont coutume d'admit les Syriens" (Michel the Syrian): 5180. This is the Mar Abdià era).

Era of Aphrahat: 3468 (Elijah of Nisibe). This figure does not correspond to aphrahat totals (*Patr. Syriaca*, II, 67-91) and these totals themselves are not all in agreement with the lower groups, so one cannot really know the era of this author. It can be said, however, that it does not obey the mysticism of the number 5500 or even 5000 and seems to proceed only from a calculation made according to the Holy Books sans concern in agreement with acycle. Elijah of Nisibe says that this era of Aphrahat (3468 until Seleucus) is that of the Jews. But the addition 311 or 312 gives 3779 or 3780 BC. J.-C., while the era of the Jews is 3761/3760, as we indicate at theess.

Era of the Jews: I Tishri 3761 BCE. Era in agreement and perhaps in connection with the Cycle of Constantinople of 345.

For the reduction of the dates of the Jewish era to the Dionysian years, from I Tishri to 31 December, delete 3761; from I December to I Tishri, subtract 3760. The Jewish year being a lunisolar year, the 1st Tishri does not correspond to a fixed date. It is most often found in September, sometimes towards the end of August.

For the reduction of the calendars of the month, we cannot give rules here; the best is to consult one of the correspondences that exist, for example that of Mahler, *Chronologische Vergleichungs-Tabellen*, pages 70-129, which goes from Tishri 4001 (= 200 AD) to 6000 (= 2239 AD). The concordance relates to the first of each Hebrew month: it adds the day of the week.

2. CYCLIC-ONLY-BASED ERA

Diocletian era (August 29, 284). — It took the name diocletian, because the first year of the reign of this emperor (284-285) coincided with the first of the cycle of Alexandria, resulting from the reform of the cycle of Anatolius. This era was also called martyrs from the last century. The oldest document, to my knowledge, that uses this name is the inscription of

Friihner, ed. L. Robert, No. 81. The date is marked: &nô pr. p v where we agree to replace the letter T ---- 360) to obtain concordance with the other data: the resulting date is Monday, December 15 (19 choiak) 643.

Reduction rules

From 29 or 30 August (I thôth) to 31 December (4 or 5th tybi), add 283; from 1st January (5 or 7 tybi) to 28 or 29 August (5th or 6th epogomene), add 284.

Era of 172 BC. J.-C., based on the Paschal cycle of 532 years of Alexandria (361) by prolepsis (see I Partic. p. 138, no. 7).

Era of the Romans, also known as the Greeks, based on the Cycle of Constantinople of 344, applied by retrogression (see Part I, pp. 146-151).

Armenian era (great): 552 AD First year of the era: 552 (July 11)-553. The cycle is that of Constantinople of 344. But the Armenian year being a vague year, the era developed by moving away from the cycle. That is why it was conceived quite early, but rather late the adjustment of the era on the cycle, by the adoption of the fixed year. This was the object of the reform of John the Deacon.

Armenian era (small) (of John the Deacon): 1084 AD. First year of the era: 1084 (Augt)-1085. The cycle is that of Constantinople of 344.

Reduction rules

For the Armenian era (vague years). — To find the Christian year in which an Armenian year begins, add to it 551 up to and including the year 769, and add 550 from 770. If it is a question of translating a specific date, it is better, in preference to long and complicated calculations, to contact concordance tables. To make them complete would take up too much space. In ours, we will find the precise date in the Julian calendar of ^{ter} Navasart, beginning of the Armenian year. We will then use our special painting, No. VII (p. 306) to translate the Armenian calendars into Julian calendars of our era.

For the Armenian era (fixed years). — From 11 August to 31 December, add 1083; from ¹ January to August, add 1084.

3. PURELY RELIGIOUS ERAS

With the exception of the Hegira, purely religious eras were created very long after the event they recall; their origin is in the calculation of chronographs, and it is only gradually that some of them have entered the common use.

1. The Age of Abraham

It is the oldest of the purely religious eras. It is observed in the *Chronicle* of Eusebius and it is probably he who is the author. This work is known to us in a double translation, Latin, of St. Jerome, and Armenian, of Samuel d'Ani, where we see her arrested in the year 2319, Olympiad 270, 4 and 16th year of Diocletian (301 AD).

This era of Abraham begins in the year 2016 BCE. The birth of Christ is there marked in the year 2015, that is to say two years before the Dionysian Christian era.

2. The Eras of Christ

The eras of Christ are taken either from the Incarnation or the Nativity, or from the Passion, Resurrection or Ascension, or from the Preaching of Christ. We neglect the latter, which is used rarely and only as a sum of years. There is no conformity between these eras as to the actual chronology.

Eras of incarnation or nativity. — Several Byzantine chronographs, and not the least, indicate an era of Christ next to the world era. It is the term $\alpha\omicron\tau\omicron\gamma\ \kappa\rho\alpha\kappa\pi\epsilon\upsilon\epsilon\zeta\omega\varsigma$ that is commonly used. It strictly designates the Incarnation itself. Thus, at Théophane and Georges le Syncelle, who mark the event on the date of March 25. It must be the same with Georges Cédrenus, who, between his years of the world and his years of the *cs.py.corp.c* puts a gap of

6 years, which can only be explained by taking the term in its strict sense. The inconsistency of their chronology prevents the cases of the Ps.-Symeon Magister and the Ps.-Georges le Moine from **being decided**.

The oldest eras of the Word o-cpx.ci.) cp4, among the Byzantines are those who, in the world eras, take their starting point in 5501. Each of them is separated from its corresponding world era by a whole number of centuries (exactly five centuries), so that both have the same numeration in the years contained in a century, for example the year of the world 5790 has as correlative the Christian year 290. It is so with Cyril of Skythopolis (death of Euthyms: 5965 of the monde and 465 of the Incarnation), with George the Syncelle, his continuator Theophanes, Ps.-Symeon Magister, Ps.-George the Monk. The *chronicon paschale*, who evades the mysticism of 5500 in that it has strict, refrains from marking an era of the Nativity or the Incarnation. Georges Cédrenus is the first chroniqueur, to our knowledge, which combines the two eras, the world and that of the adpxcoatc" with a gap in the march of the years.

Here are the various eras of the Incarnation or the Nativity among the Byzantines. We mark them in the age of the respective world, then in the relationship to the Dionysian era.

1. In the Alexandrian era: 5501 (March 25, Incarnation) = 9 of the Dionysian era.

2. In the Protobyzantine era: 5507 = 3 BCE.

3. In the Byzantine era, it is the birth of Christ, or December 25, the date closest to the beginning of the indiction that is the envisaged event, and the year is counted from the indiction (1 September). In this era, the birth of Christ is **not** evenly dated. I note at least five systems.

5506 (Cedrenus) = 4/3 BEFORE the Dionysian era; birth of Christ on December 25 = 3 BCE. The era of the crdcpx. (Liatr next to the world era does not appear in this chronicle before the reign of Constantine. The relationship between the two eras and both with the actual chronology poses a particular problem.

5505 (Psellos, Callist Nikephoros) = 5/4 BEFORE the Dionysian era; Christ's birth on December 25 = 5 before our è.

5501 (*Dioptra* of Philip the Solitary and various others) = 9/8 before the Dionysian era.

5517 (alignment with the Alexandrian system) = 9 Dionysian era.

5508-09 (alignment with the Dionysian era in the late era) = 1 with the Dionysian era.

4. In the era of Malalas and Hesychius: 5968 = 48 of the era of Antioch (Malalas) — 2/1 BC. (It seemed necessary to correct the number 42 to 48.)

Apart from the behavior of chronographs or chroniclers, was there any use among the Byzantines of a Christian era? If we put aside the countries or communities under Latin domination and if we exclude the last times of the Byzantine Empire, it does not seem so, or at least we do not find a certain example (1). I do not know if one has examined the date which is at the end of the preface to the Answers to Mark of Alexandria: 1203, ind. 13. The data do not agree: we should indiction 3. I suppose 1203 is a Christian Byzantine translation of the year of the world 5703, the date of Christ's birth having been placed in 5501 to observe the mysticism of the number 5500. The date according to the Dionysian era is then 1195 (it is the one that figure in the *Regestes des patr. of Constantinople*, No. 1184).

Like the Byzantines, the Armenians subsidiary practiced an era of the birth of Christ. They based it on the chronology of Eusebius. Their Christian era precedes ours by two years. It is stated: 2 BC. We sometimes see this **marquée era** year before ours.

Let us mention here a religious era peculiar to the Armenians, namely their conversion to Christianity.

(1) GARDTHAUSEN, II, 450-455.

They state it in years since the birth of Christ, which must be understood two years before the date we give him. This era is not in common use: it is a speculation of scholars, and this explains why it has differences. Thus, Samuel d'Ani has 312 years from the birth of Christ to Gregory the Illuminator, and John the Deacon has 304 years

Common Christian Era gold *Dionysian Era*. — Its author is the monk Dionysius the Little who used it in his 95-year-old Easter table. It is the one we are currently using and which has become a common usage among nations. To realize how the famous computic established it, it must be seen that **March 25, the Roman equinox**, was a consecrated date for the Paschal chronology of Christ, but in a diverse way among the Latins and among the Orientals. the first attaching to it the Passion of Christ (*XIV lunae*) and the others, the Resurrection (*XV lunae*); By adopting in full the Paschal computus of the Alexandrians, it was not possible for Dionysius to maintain, according to Latin tradition, the Passion of Christ on March 25. He could only honor this date, charged with mystical meaning, by applying it to the Resurrection, according to the Eastern tradition. But according to this same tradition, based moreover on computing, it is in the year that Dionysius will count as the year 31 of Christ that Passion and Resurrection were fulfilled. What reason must Denys have had to count her in this way? No other can be conceived except that he stuck to the short chronology of Christ, comprising a single year of public life. The year of the Passion and Resurrection was the year 31, because that was then the age of Christ. It may seem surprising that Dionysius did not observe the long chronology of Christ's life, which he must surely have known from Eusebius' translator, Saint Jerome, Orose, Prosper of Aquitaine, of others. I guess if he has discarded it, it must have been for a practical computing reason. " He wanted to make the first "year of Christ coincide with the first year of a Julian tetraeterid, and thus make the years of the era go together with the years of the cycle. This one is, in fact, the best known and the one that intervenes most often in the supputation of the days, which it advances by one unit every four years. Failure to observe this agreement would have caused a very serious inconvenience in the calculations. According to all true whitesem, - Dionysius, just like Victorius, and according to the custom of Rome, began his years at ^{Ter} January.

Opinions differ on the question whether Dionysius placed the birth of Christ on December 25 preceding his era, or on December 25 of the year 1 of the era. The first mode responds better to expressions: *post Christum natum, a Christo nato* by which the years of the era are most often referred to. Be that as it may, it remains a theoretical question that does not change the way in which the era is used.

The Dionysian era, admitted in Italy for the Pascal computus (2), was brought to England with the Dionysian computus by the missionary monk Augustine. This is where we see it used for the first time in deeds. The first examples are some are from the end of the vili century (private act) and the beginning of the city (royal diploma). " Then She Moved " to France and Italy. Its use appears in the papal chancellery since John XIII (965-972), but it is not regular there until the advent of Eugene IV (1431).

The chroniclers, since Bede, use it commonly. With the exception of the Iberian peninsular rule, which kept its own era for a long time, it was during the Middle Ages the only era in use throughout the West. However, there are differences in how it is used. These various modes are called chronological styles. A distinction is made between:

1. " The *style of the Nativity* according to which the year began at the Christmas party on December 25, 7 days before our computus. It is also called Roman style, because it was mainly in use in Rome and in the Papal Chancellery

(1) DULATJRIER, pp. 39-186.

(2) CASSIODORE (T570) uses it in his pamphlet *Computus Paschalis*, pl 6,, 1249-50.

2. The *style of the Annunciation*, which made the year begin on March 25. This style is twofold. Or it is the March 25th after the first January of our computus, and this is the most frequent mode; it is also called Florentine style, because of its use in Florence and Tuscany. Or, it is the March 25th that precedes the first January of our computus, and this mode was in use in Pisa, which earned it the name of Pisan style.

3. The *Style of Easter*, according to which the year began on Easter Day, moving date, after the 1 January of our computus. Because of its wide distribution in France, it was called the French style, *mos Gallicanus*. He entered Naples under Charles of Anjou.

4. The *style of* ρ *Mars*, which makes the year start two months after the first January of our computing. This is the style officially employed in Venice, from where it received the name venetian style.

5. The *style of* the Ler *janvier* or *style of the Circumcision* celebrated on this day, still preserved in the Iberian Peninsula, in use in France under the Merovingians, was never completely abandoned. It was not until the fifteenth century, after it was officially adopted by France (1563), that it became common.

Eras of passion or Crucifixion, of resurrection, of Ascension. — We can unite together these three eras, which recall events that take place in the same year. The most common of the three is that of Ascension. It is seen used by Malalas and the *Chronicon paschale*. This one makes applications until the year 422. This era takes its starting point in the Dionysian year 31, which is the date of the Passion most commonly adopted among Greek authors. The use of the Ascension era is not seen in the Melkite or Jacobite Syrians, but in the Nestorian Syrians. However, it is not uniform. For Mar Abdio, it has its starting point in 31, as in Malalas and the *Chronicon paschale*. He dates the Passion, Crucifixion and Ascension of Christ in the year 342 of Alexander (= Seleucids) (= 342 — 311) (1). But Sanqlâwajâ, who dates his work by the years since Ascension (1276 or 1221 according to the manuscripts) (2), calculates otherwise. It expressly puts the end of the earthly life of Christ in the year 337 of the Greeks, the Incarnation being put in 303 (3). This brings the first year of his Ascension era to the Dionysian year 26 (= 337 — 311). In addition, this same author says that others put the Incarnation in the year 316 of the Greeks (4), from where, the same distance being observed, the starting point of the ascension era would be the year 39 dionysis (= 350 — 311). An anonymous Syriac chronicle gives different dates: 5520 of the world until ascension, the Passion being placed in 340 of Alexandria (= 29 AD) (5).

The era of Ascension according to the computus of Mar Abdio was noted by I.M. Vosté in various Nestorian manuscripts from the sixteenth to the nineteenth century (6).

3. Muhammad era or Hegira

The Mohammedans have the starting point of their era: 1 Moharrem (first month of the year) year 1, on July 16, 622, which is the day received, but not historical (the fact took place 68 days later, on the 8th Rebi 1) of the flight of Muhammad leaving Mecca for Medina. The name of the era is taken from this event: *hegira*, *hijara* = flight. It was not Muhammad himself who instituted the era, but the

(1) ABDISb, *Ordo judiciorum*, I, 1, tr. I. c. ro, Latin version of I.M. VosTÉ, *Codificazione canonica orientale*, Ponti, série II, fasc. XV, *Chaldei*. — *Diritto antico*, II : 'rypis polyglottis Vaticanis, 1940, p. 62.

(2) Fr. MÜLLER, *Die Chronologie des Simeon angelaizejeja.*, Leipzig, 1889, p. 27.

(3) *Ibid.*, 25.

(4) *Ibid.*, 25-27.

(5) CSCO, *Scriptores syri*, series 3, t. IV : *Chronica minora*, II, 1904, p. 88.

(6) I.M. VosTÉ, L'ère de l'Ascension de Notre-Seigneur dans les manuscrits nestoriens, *OCP*, 7, 1941, 232-243.

Caliph Omar. It should be noted that Muslim astronomers put the beginning of the AH on July 15 and that some historians follow this usage.

The years of this era are composed of lunar months of 30 and 29 days alternately, without there ever being an intercalary month. Eleven years out of thirty have one more day. Minus a difference of 5 or 6 days, 34 years of AH is equivalent to 33 Julian years. This must be taken into account in order to establish the concordance of the years of the hegira with the years of the Christian era.

Rule for reducing one year from AH to Dionysian year

Divide the number of AH years by 33, subtract the dividend quotient and add to the rest 622. By meaning by H the years of the hegira, we have the formula: $(H - \frac{H}{33}) \pm 622$. Example:

615 AH. This number divided by 33 produces 18. I subtract this product from 615; remains 597. I add 597 and 622: total 1219. The year 615 AH corresponds to the year 1219 of the Dionysian era. But it should be noted that this does not apply to part of the year 1219, because of the different beginning of the year in both eras; There are formulas for obtaining more precise concordances, but they are complicated, and their use is time-consuming. This is why we preferred, like Mas-Latrie, to reproduce the Wüstenfeld table which gives the correspondence for each beginning of the Muslim month. We can also use our subsidiary table No. VIII. It will be even easier and more secure if the **one can resort to a work that gives the correspondence day for day between the two eras**, such as E. Josué, *Tablos de reduccion del computo musulman al cristiano y viceversa*, Madrid, 1903.

In addition, it should not be forgotten, using Muslim sources, that the day is counted starting at sunset. The AH era was in common use among Christians living under Muslim rule (Syria and Egypt).

Note. - In addition to this common era of the Mohammedans, there is a particular era: the era of *Hamza*, **founder of** druse theology. It dates from "the manifestation of the divine incarnation in the person of the Fatimid Khalife Al-Hakem" 408 AH (ioi 7 AD). It is from this era that the epistle to Constantine VIII is dated: J. KHALIL and L. RONZÉVALLE, *The Epistle to Constantine*, *Melanes of univ. Saint-Joseph de Beyrouth*, 3, 1909, 493-534.

conclusion

Dating

Chronology, a science that allows us to situate in the sequence of times the events of the past that have come to our knowledge and to realize to ourselves the distance that separates us from them, the fact by means of frameworks or units either provided by nature or based on it, or established by social institution or by private convention, but commonly accepted.

The fundamental chronological unit is the year, more precisely the solar year, because it is it that regulates human activity. It is therefore a question, for the chronologist, of knowing how many years separate us from a given event. Such an assessment can only be made by means of a common point of comparison, namely, a starting point where the years begin their numeration, and by means of a **serial number** at which the year of the planned event is given a serial number. This serial number is the dating. The starting point or initial year is fixed at an event chosen or accepted locally. In our current chronology system, the event on which **our** numeration of years is suspended is the birth of Jesus Christ, placed at a certain point in history, according to a late estimate due to Dionysius the Lesser (life century AD). This estimate is acknowledged to be inaccurate, but it is appropriately maintained, both because of a long habit and to avoid the serious inconveniences which would result from a change. It is also in relation to the birth of Christ that the events of antiquity that predate him are dated. Our dating system is therefore done in years before Christ and years after Jesus Christ. And it is in this chronological formulation that, out of necessity of unification, all the other modes of dating encountered in the sources will have to be transposed.

The Christian chronology established by Dionysius the Little, also called Dionysian because of him, began to become widespread in the West in the fifth century. Before it, various systems existed or still existed, of a less convenient use.

The first chronographies we know did not include this formal numeration of the years from an event. Those of Babylon and Egypt were constituted by dynastic lists that were transmitted to us respectively by Berosus and Manethon: the epigraphic discoveries made it possible to complete and correct them. Closer to our era, Eratosthenes had similar lists to trace the development of the Greek past: kings of Sparta, winners of the Olympic games, eponymous Athenian archons. Ptolemy, in the second century AD transmitted to us a **Canon of Kings with indication of the duration of their reign**, ranging from Nabonassar, king of Babylon, 747 BC, to emperor Hadrian, 137 AD. In Rome, the chronology was based on the list of eponymous consuls as in Athens on the list of archons.

It is obvious that these means of chronology, consisting of lists of names, had to be very inconvenient. The historian who wanted to assess the distance between two events could only do so by counting all the intermediaries. Thus the creation of the era of the Olympiads, listed by numbers instead of being enumerated by names, was a considerable advance, which explains its success. There is, in fact, only one convenient means of dating, which is that of the eras. " The Era of "

Olympiads is the first imperfect attempt at this. The event to which this era is attached is the institution of the quadrennial Games of Olympia.

The old chronographs were concerned to mark the times as they could and according to the means they were using, and it is on them that we still depend for the broad outlines of history. Those who, after them, have used eras proper, offer us greater precision. But history is also made, it is made above all by means of documents or monuments, witnesses or direct effects of the activity of men and which translate the facts at the time when they occurred: texts of laws, contracts, correspondence, monumental inscriptions, epitaphs, etc. And we appreciate historians or annalists all the more that they transmit to us more of these living testimonies, fruit of their observations or their readings. It happens quite often that these documents bear a date, it is formulated differently according to the countries and according to the times.

Originally, most universally, the event is dated to the name of the king or supreme magistrate. In Rome, it is the indication of the names of the consuls that designates the year. In monarchical states, the event is dated by the name of the reigning sovereign with or without indication of the year of reign. This process also exists at the time of the Roman Empire and even more, especially since Justinian, among the Byzantines.

More convenient, as we have said, is that the mention of reigns or consulates is the use of an era, whatever its basis. This way of dating is common in the inscriptions or on the coins of Asia Minor and Syria, countries where the local eras flourish particularly. The important thing here is to determine for each case which era it is and what is its starting point.

These local eras are gradually disappearing and there is little question of them after the Muslim invasion. In the Byzantine Empire there is, from the ninth century, no era other than the era of the creation of the world, on which sometimes is grafted the year of the Incarnation. In the ancient parts of the Byzantine Empire conquered by Islam, the era of the Seleucids (Syria) and the era of Diocletian (Egypt) established from this emperor remain. Added to this is the hegira era.

Living documents also sometimes use the numeration of the years of a cycle or a period: indiction, lunar cycle and solar cycle, Paschal cycle: indeterminate dating that can only be pushed to the precise by means of some synchronism or some circumstance extrinsic to the wording itself (epigraphic character, place of inscription, style of ornamentation, etc.).

All these various means of dating, we must translate them into our current chronological language. In this operation, we must take into account the fact that the beginning of the year, in these various eras or cycles, does not coincide with ours, and that for each of them we must first recognize what is the first day of the year. A particular difficulty arises for the years of reign. The question is whether they are counted strictly, i.e. from the date of the event, or whether they are superimposed on the calendar year, starting with the current year or the following year. As for the acts emanating from the imperial chancellery, there can be no doubt that the years are numbered from the day and anniversaries of the advent. As for private chronological notations, inscriptions, memorials, biographical indications or the use of chronographs, the solution is not obvious: it is certainly not impossible that, by simplification, the imperial year was superimposed on the calendar year. Anastasjević thought that at least for chronographs it was so among the Byzantines: they made the years of the reign begin with the calendar year, ¹ January until the view century, ^{1^{er}} September later at least already in the tenth century. This position was opposed by Fr. Dölger who gives many examples of a strict account of the imperial year. For my part, I would not dare to take sides, nor, above all, speak of an absolute rule. It is each case that will have to be eliminated in particular or at least, if it is an author, it will be necessary to have established, by certain examples, what its own use is.

It is not only the year of an event that the historian or chronograph seeks to

reaching, it is also the day in the year. It is the lower chronological frameworks — the divisions of the year — that serve this purpose, especially the month, because it is usually by the monthly calendar that the day of the year is expressed, and in any case, it is the monthly calendar that it must be brought back when it is expressed differently. And just as we must observe in the eras what the beginning of the year is, we must also, for the months, take into account that they have not even started or even lasted in the various calendars and that we must therefore be careful to transpose them exactly into our current framework of months.

The week and the day of the week are sometimes also used to specify the dating of an event during a year: this usually takes place within a liturgical cycle.

One of the most important elements in synchronisms is the day of the week. The same day of the week does not return to the same monthly calendar as every 28 year old. If we know that such an event took place during such a reign, Mauritius for example (20 years) or Leo VI (26 years) and that the sources indicate as chronological elements only the day of the month and the day of the week, we will surely know by means of this coincidence in which **the year it took place**. The perpetuating schedule will make this verification easy. And similarly, if we know that the event took place in such a century, the same table will allow us to see in which years of the century the coincidence returns. The perpetual calendar, by indicating for each day of any year whatever its weekday, is a way to control very surely all the dates transmitted by the chroniclers where the day of the month and the day of the week are indicated, and to detect the needs of the copyists in terms of chronology.

Certain synchronisms given by epigraphic texts or memorials are of great help to know the year when it is not expressly designated. Thus, when the year of the unary cycle and the year of the solar cycle are indicated, we first look for in which year of the 532-year Easter cycle the coincidence occurs (it occurs only once). We will consult for this the table of cycles that we have drawn up, taking care to observe **in which style the coincidence is provided**, Dionysian, Byzantine or Alexandrian. For example, the coincidence: year 9 of the lunar cycle and year 6 of the solar cycle is in the year 446 of the Dionysian Paschal cycle, in the year 370 of the Byzantine Paschal cycle, and 354 of the Alexandrian Paschal cycle. In the Dionysian Paschal cycle the year 446 corresponds to the year 445 of the Dionysian era, as well as in the year 977 (445, 532) and the year 1509 (977 -1- 532). In the Byzantine Paschal cycle, the year 370 corresponds to the year 6222 of the Byzantine era (714 AD) as well as the years 6754 (1246) and 7286 (1778). In the Alexandrian Paschal cycle, the year 370 corresponds to 6222 of the Alexandrian era (730 AD) as well as the years 6754 (1262) and 7286 (1794).

Other coincidences include day of the month, day of the week and day of the moon. Thus in Lefèvre, *Recueil des inscriptions grecques chrétiennes d'Égypte*, n° 663 : II phamenoth, mardi, 26e jour de la lune. What is the year?

The incidence of the 26th day of the moon at I 1 phamenoth (March 7) leads the *EASTER XIV Lunae* (next lunation) to March 25. The lunation that precedes the Easter lunation is indeed 30 days (see the table of neomenias). This Easter date of March 25 is that of the 2nd year of the Alexandrian lunar cycle, 18th of the Byzantine lunar cycle. Moreover, Tuesday, March 7 leads on March 25 to a Saturday. This double incidence of the *Easter XIV lunae* on March 25 and Saturday occurs four times in the 532-year cycle, namely, in the years of the solar cycle that meet with the aforementioned year of the lunar cycle. In the Perpetual Calendar of Byzantine Easter (see p. 311), these are the 5 years,

I, 16, 22, each placed in a different series of the 28-year solar cycle. Going through the table of the Byzantine cycle of 532 years (see pp. 266 et seq.), their encounter with the 18th year of the Byzantine lunar cycle takes place in this order: I, 22, 5, 16, to the years 151, 246, 341, 436 of this table. These years correspond to the years of the Dionysian Christian era 495, 590, 685, 780. Concordance **returns** again 532 years after each of these dates.

Other synchronism: day of the month, day of the moon, indiction. Example: Jalabert and Mousterde, *Christian Greek Inscriptions of Syria*, No. 727: 24 Peritios, indiction 4, 2nd day of the moon. What is the year? Looking at the neomeny table, the 2nd day of the moon and February 24 coincide with the 9th **year of** the lunar cycle. Since the indiction comes every 15 years, the coincidence will return every 285 years. To find the year, we will consult our table of cycles where we have reserved a column for the indictions. We will see the coincidence of indiction 4 and year 5 of the **Byzantine lunar cycle in** 391, 676 and so on every 285 years. If it is February 29, the coincidence with the indiction and the day of the moon returns only every 140 years ($285 > (4)$).

A more complicated problem is the synchronism of the day of the month, the day of the week and the indiction. The coincidence of the day of the week and the day of the month comes back every 28 years: it is the solar cycle. By combining it with indiction we obtain the period of 420 years, at the end of which always comes the same synchronism. In this period of 420 years the same coincidence of the day and the week returns every 45 years 4 times in a row, the first time starting in a **sextile leap year** (from 1st March), **after which it is necessary to wait for the restart of the period of 420 years** to have the same synchronism. Thus the **1 September will be a Monday** in 312, 357, 402, 447, then 732, 777, 822, 867, etc. If it is 29 February, the **return to the** same day of the week only takes place every 420 years.

One will also find in the liturgical indications the means to mark either the year of an event or the day in the year. Thus, for the theological discussion of Basil of Achrída and Anselm of Havelberg, the mention in the mouth of the Greek of the gospel of the day: second Saturday of Luke, leads to specify, Anselm being in Italy in May 1155, that the dialogue took place on **October 2**, 1154, and not on April 9, 1155, **comme** says, commenting on the passage, the publisher Schmidt, who did not take care of the Greek cycle of evangelical readings.

We quite often meet datings taken thus from the liturgy. Our liturgical lists will make it easy to explain them.

Some natural phenomena also offer ways to specify dates. In the first place come eclipses of the sun or moon, frequently mentioned by chroniclers. Since these are regular phenomena whose recurrence is calculated independently of any chronological system, **their mention about an** insufficiently dated event can provide the desired accuracy. That is why we have given the list with regard to the time and space of the **Byzantine em** worst.

Some chroniclers sometimes date the event by the position of the sun in relation to the zodiac. Below is the table of the entrances of the sun in each of the twelve constellations, according to the centuries.

We also give a list of comets from 285 to 1462, reproducing, without astronomical indications, that of M. F. Baldet, published in 1950; we have inserted some additions.

Finally, mention should be made of the unforeseeable natural phenomena of terre tremors, sometimes given by authors as a synchronic element of an event. We have drawn up, on the control and personal research, a new list of these events, which, although not complete, will be useful until an exhaustive study appears. It will be particularly beneficial to the archaeologist in view of the history of the monuments.

These lists of natural phenomena, such as the tables of cycles and liturgical festivals, are thus subsidiary means that very usefully complement the chronological frameworks and make it possible to locate exactly in time events whose date would otherwise remain unknown or imprecise.

Finally, our special tables will provide the means, either to quickly resolve certain concordances, or to easily reduce to the years of our era and the days of our calendar the dates formulated in another style.

Finally, we thought it useful to recall the pages in which the notable chronological peculiarities of certain texts or authors were dealt with:

- Basil II, first imperial document surely bearing the Byzantine era, p. 127.
Boril (Synode du tsar), commencement de l'année, p. 125.
Cédrénus, beginning of the year, p. 61, n. 8; concordance of eras, p. 123-124, 223.
Council in Trullo, first ecclesiastical document dating from the world era, p. 127.
Cyril of Skythopolis, Alexandrian World Era and Incarnation Era, p. 223.
Eklogè de Léon III et Eklogè, de Wirth, début de l'année, p. 124-125.
El-Makin, alexandrine era, p. 96.
Epitomè B, era of 5.516, p. 117.
Eutychius of Alexandria, Alexandrian era, p. 96-97.
Evagre, beginning of the indiction, p. 194.
Génésius, beginning of the year, p. 126.
George II Xiphilin (Answers to Mark), era employed, p. 223.
George the Monk continued, influence of the Alexandrian era, p. 122; special era, pp. 126, 157; era of
 l'Incarnation, p. 222-223.
Georges le Syncelle, ère alexandrine, p. 95-96, 114-115, 122-123, 222-223.
Inscriptions, oldest attestations of the Byzantine era, p. 125; beginning of the indiction, p. 193-195.
John XI, Patriarch of Alexandria, his letter to Pope Eugene and the Alexandrian era, p. 96-97.
Leo the Deacon, Special Era, p. 126.
Passion of the Sabaïte Martyrs, beginning of the year, p. 95, n. 4.
Philip the Lonely, era of 5,500, p. 123.
Symeon Magister (pseudo), influence of the Alexandrian era, p. 122; special era, pp. 126, 157; era of
 l'Incarnation, p. 223.
Theophanes the Confessor, Alexandrian era, pp. 95-96, 124, 126; incarnation era, p. 222-223.
Theophanes Continued, era, pp. 96, 126.
Typikon de l'Evergétis, ère alexandrine, p. 96, 127, n. I I, 196.
Vita Symeonis Stylitae, beginning of the indiction, p. 202.

Reconstruction of the protobyzantine Paschal table of 353

(Trochos IV of Chronicon Paschale)

This table reproduces, with the exception of the central explanatory note, the various elements of the protobyzantine Paschal table preserved in Tpozç IV of the *Chronicon Paschale* (see above p. 78). We have shown (p. 77 sqq.) that this - rpoz6ç, in its current state, presents several faults either of inattention (Paschal and epact dates), or of interpretation (dating according to the years of Diocletian). All of them are corrected so that the reader will have the original content of this important document directly in front of him. — We have added to the margin of the table the years of Christ corresponding to the years of Diocletian.

Armies of" The Lunar Cyc "	Epacts	Dates of the Legal Passover			Years of Diocletian	Years of Christ	
		Roman calendar (r)	callus. Macedonian	callus. Egyptian			
I.	30	Idibus Aprilibus	embol.	13 Xanthikos 2	18 Pharmouthi 7	60	34 I
II.	11	IV Nonas Apriles		Xanthikos 22	Pharmouthi 26	61	345
III.	22	XI Kal. Apriles		Dystros 10	Phamenôth 15	62	346
IV.	3	IV Idus Apriles	embol.	Xanthikos 30	Pharmouthi 4	63	347
V.	14	III Kal. Apriles		Dystros 18	Pharmouthi 23	64	348
VI.	25	XIV Kal. Maias	embol.	Xanthikos 7	Pharmouthi 12	65	349
VII.	6	VII Idus Apriles		Xanthikos 27	Pharmouthi 1	66	350
VIII.	17	VI Kal. Apriles		Dystros 15	Pharmouthi 20	67	351
Ix.	28	XVII Kal. Maias	embol.	Xanthikos 4	Pharmouthi 9	68	352
X.	9	Pridie Nonas Apriles		Xanthikos 24	Pharmouthi 28	69	353
XI.	20	IX Kal. Apriles		Dystros 12	Phamenôth 14	70	354
XII.	1	Pridie Idus Apriles	embol.	Xanthikos 1	Pharmouthi 6	71	355
XIII.	12	Kalendis Aprilibus		Xanthikos 21	Pharmouthi 25	72	356
XIV.	23	XII Kal. Apriles	embol.	Dystros 9	Phamenôth 14	73	357
XV.	4	V Idus Apriles		Xanthikos 29	Pharmouthi 3	74	358
XVI.	15	IV Kal. Apriles		Dystros 17	Pharmouthi 22	75	359
XVII.	26	XV Kal. Maias	embol.	Xanthikos 6	Pharmouthi 11	76	360
XVIII.	7	VIII Idus Apriles		Xanthikos 26	Pharmouthi 30	77	361
XIX.	18	VII Kal. Apriles		Dystros	Phamenôth	78	362

(r) The dates according to the continuous numeration are to be taken in the Macedonian calendar where Dystros = March, and Xanthikos = April.

DAY AND DIVISION OF THE DAY

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week

ARAGO, *op. cit. Cit.*, 974-975. — GINZEL, II, 83-85; III, 97-105, 297. - KUBITSCHKEK, *Grundriss*, 30-34. — Ch. Em. LANE, art. Calendarium, *Dict. des antiquités grecques et romaines* de DAREMBERG et SAGLIO, P, 833-835.

month

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PART THREE

CHRONOLOGICAL TABLES

GENERAL CHRONOLOGICAL TABLE

containing

The years of Jesus Christ (Dionysian era); the Olympiads until the 347th; the era of the foundation of Rome until its 1333rd year (= 580); the Caesarean era of Antioch; the Era of Spain until its 818th year (= 780); the World Era of Alexandria; the protobyzantine world era; the Byzantine world era; the indictions; the era of the Seleucids or the Greeks; the era of Diocletian or the Martyrs; the Armenian era, big and small; the era of the Hegira; the world era and the Paschal cycle of the Georgians; the term Paschal and Easter; the Sunday letters.

Note. - The double Sunday letter is sufficient to mark the leap years of the Roman calendar. — The overabundant year in the column of the Era of the Martyrs (Alexandrian calendar) is indicated by an asterisk. — The asterisk is also used to mark, in the **Easter colony, the years in which there is disagreement on the date of this** feast. The divergent dates are indicated at the bottom of the pages. On this point, we have used Mas Latrie and Cappelli, while neglecting, however, what only concerns Brittany. On **the other hand**, we have pointed out the years when Armenians and Syrians have a different date.

For the solar, lunar and Paschal (532 years) cycles, as they differ in the Christian-Dionysian, Byzantine and Alexandrian eras (except for the lunar cycle which is common in the Dionysian and Alexandrian eras), we had to draw up a special table indicating for each era its respective cycles.

Year	195.1	75.1 I	49	19:3	75.1	57.09	312	2.5 M	
1	195.1	75.1 I	49	19:3	75.1	57.09	312	2.5 M	
285	266, 1	1038	333	323	5777	5794	5793	596	1 5 A
286	2	1039	334	324	5778	5795	5794	597	2.5 M
287	3	1040	335	325	5779	5796	5795	598	1.3 A
288	4	1041	336	326	5780	5797	5796	599	2 A
289	267, 1	1042	337	327	5781	5798	5797	600	2.2 M
290	2	1043	338	328	5782	5799	5798	601	1.0 A
291	3	1044	339	329	5783	5800	5799	602	3.0 M
292	4	1045	340	330	5784	5801	5800	603	1.8 A
293	268, 1	1046	341	331	5785	5802	5801	604	7 A
294	2	1047	342	332	5786	5803	5802	605	10 2.7 M
295	3	1048	343	333	5787	5804	5803	606	*11 1.5 A
296	4	1049	344	334	5788	5805	5804	607	12 4 A
297	269, 1	1050	345	335	5789	5806	5805	608	13 2.4 M
298	2	1051	346	336	5790	5807	5806	609	14 1.2 A
299	3	1052	347	337	5791	5808	5807	610	*15 1 A
300	4	1053	348	338	5792	5809	5808	611	16 2.1 M
301	270, 1	1,1054	349	339	5793	5810	5809	612	17 9 A
302	2	1055	350	340	5794	5811	5810	613	18 2.9 M
303	3	1056	351	341	5795	5812	5811	614	*19 1.7 A
304	1,1057	352	342	342	5796	5813	5812	615	20 5 A
305	271, 1	1,1058	353	343	5797	5814	5813	616	2.1 2.5 M
306	2	1059	354	344	5798	5815	5814	617	22 1.3 A
307	3	1060	355	345	5799	5816	5815	618	*23 2 A
308	4	1061	356	346	5800	5817	5816	619	24 2.2 M
309	272, 1	1,1062	357	347	5801	5818	5817	620	25 1.0 A
310	2	1063	358	348	5802	5819	5818	621	26 3.0 M
311	3	1064	359	349	5803	5820	5819	622	*27 1.8 A
312	4	1065	360	350	5804	5821	5820	623	28 7 A
313	273, 1	1066	361	351	5805	5822	5821	624	29 2.7 M
314	2	1067	362	352	5806	5823	5822	625	30 1.5 A
315	3	1068	363	353	5807	5824	5823	626	*31 4 A
316	4	1069	364	354	5808	5825	5824	627	32 2.4 M
317	274, 1	1070	365	355	5809	5826	5825	628	33 1.2 A
318	2	1071	366	356	5810	5827	5826	629	34 1 A
319	3	1072	367	357	5811	5828	5827	630	*35 2.1 M
320	4	1073	368	358	5812	5829	5828	631	36 9 A
321	275, 1	1074	369	359	5813	5830	5829	632	37 2.9 M
322	2	1075	370	360	5814	5831	5830	633	38 1.7 A
323	3	1076	371	361	5815	5832	5831	634	*39 5 A
324	4	1077	372	362	5816	5833	5832	635	40 2.5 M
325	276, 1	1078	373	363	5817	5834	5833	636	41 1.3 A
326	3	1079	374	364	5818	5835	5834	637	42 2 A
327	4	1080	375	365	5819	5836	5835	638	*43 2.2 M
328	277, 1	1081	376	366	5820	5837	5836	639	44 1.0 A
329	2	1082	377	367	5821	5838	5837	640	45 3.0 M
330	3	1083	378	368	5822	5839	5838	641	46 1.8 A

In 300 and 306, Easter is April 21 in some Western churches.
 In 311, Easter is March 25 in some Western churches.
 In 319, Easter is March 29 in some Western Churches.

In 322, Easter is March 25 in some Churches of the West. In 326,
 Easter is April 10 in some Western churches.

GENERAL CHRONOLOGICAL TABLE

In 333, Easter is the 15 April in some Western Churches. In 343, Easter is April 3 in some Churches of the West. In 346, Easter is March 30 in some Western Churches. In 349, Easter is March 26 in some Churches of the West. In 350, Easter is April 15 in some Western Churches. In 353, Easter is April 4 in some Western Churches. In 357, Easter is March 30 in some Western Churches. In 359, Easter is March 28 in some Western Churches.

In 360, Easter is March 26 or April 16 in some Churches of OcCident.

In 363, Easter is April 13 in some Churches of the West. In 368, Easter is March 23 in some Western churches. In 373, Easter is March 24 in some Churches of the West. In 377, Easter is April 9 in some Churches of the West. In 380, Easter is April 5 in some Western churches.

			Ω 45 ege 4>	â" 40 u a	li 5 a) a	52 to a	5 4	P. Y.	Era of the Greeks or Seleucids	Era of Diocletian or martyrs	Pascal term X/ V lune M = March A = April	Easter	letters Sunday
331	277, 3	1084	379	369	5823	5840	5839	4	642	*47	7 A	11 A	c
332	4	1085	380	370	5824	5841	5840	5	643	48	27 M	2A	B A
333	278, 1	1086	381	371	5825	5842	5841	6	644	49	15 A	*22 A	g f
334	2	1087	382	372	5826	5843	5842	7	645	50	4A	7 A	f
335	3	1088	383	373	5827	5844	5843	8	646	*51	24 M	30 M	E
336	4	1089	384	374	5828	5845	5844	9	647	52	12 A	18 A	D C
337	279, 1	1090	385	375	5829	5846	5845	10	648	53	1 A	3 AB	A
338	2	1091	386	376	5830	5847	5846	11	649	54	21 M	26 M	
339	3	1092	387	377	5831	5848	5847	12	650	*55	9 A	15 AG	
340	4	1093	388	378	5832	5849	5848	13	651	56	29 M	30 M	F E
341	280, 1	1094	389	379	5833	5850	5849	14	652	57	17 A	19 A	D c
342	2	1095	390	380	5834	5851	5850	15	653	58	5 A	11 A	c
343	3	1096	391	381	5835	5852	5851	1	654	*59	25 M	*27 M	B
344	4	1097	392	382	5836	5853	5852	2	655	60	13 A	15 A	A G
345	281, 1	1098	393	383	5837	5854	5853	3	656	61	2A	7 A	f
346	2	1099	394	384	5838	5855	5854	4	657	62	22 M	*23 M	E
347	3	1100	395	385	5839	5856	5855	5	658	*63	10 A	12 A	D
348	4	1101	396	386	5840	5857	5856	6	659	64	30 M	3A	C B
349	282, 1	1102	397	387	5841	5858	5857	7	660	65	18 A	*23 A	a
350	2	1103	398	388	5842	5859	5858	8	661	66	7 A	*8 A	g
351	3	1104	399	389	5843	5860	5859	9	662	*67	27 M	31 M	f
352	4	1105	400	390	5844	5861	5860	10	663	68	15 A	19 A	E D
353	283, 1	1106	401	391	5845	5862	5861	11	664	69	4 A	*11 A	c
354	2	1107	402	392	5846	5863	5862	12	665	70	24 M	27 M	B
355	3	1108	403	393	5847	5864	5863	13	666	*71	12 A	16 A	a
356	4	1109	414	394	5848	5865	5864	14	667	72	1 A	7 A	G F
357	284, 1	1110	405	395	5849	5866	5865	15	668	73	21 M	*23 M	E
358	2	1111	406	396	5850	5867	5866	1	669	74	9 A	12 AD	
359	3	1112	407	397	5851	5868	5867	2	670	*75	29 M	*4 A	c
360	4	1113	408	398	5852	5869	5868	3	671	76	17 A	*23 A	B A
361	285, 1	1114	409	399	5853	5870	5869	4	672	77	5A	8 AG	
362	2	1115	410	400	5854	5871	5870	5	673	78	25 M	31 M	f
363	3	1116	411	401	5855	5872	5871	6	674	*79	13 A	*20 A	E
364	4	1117	412	402	5856	5873	5872	7	675	80	2A	4 A	D C
365	286, 1	1118	413	403	5857	5874	5873	8	676	81	22 M	27 M	B
366	2	1119	414	404	5858	5875	5874	9	677	82	10 A	16 A	a
367	3	1120	415	405	5859	5876	5875	10	678	*83	30 M	1 A	g
368	4	1121	416	406	5860	5877	5876	11	679	84	18 A	*20 A	F E
369	287, 1	1122	417	407	5861	5878	5877	12	680	85	7 A	12 A	D
370	2	1123	418	408	5862	5879	5878	13	681	86	27 M	28 M	c
371	3	1124	419	409	5863	5880	5879	14	682	*87	15 A	17 AB	
372	4	1125	420	410	5864	5881	5880	15	683	88	4A	8 A	A G
373	288, 1	1126	421	411	5865	5882	5881	1	684	89	24 M	*31 M	f
374	2	1127	422	412	5866	5883	5882	2	685	90	12 A	13 A	E
375	3	1128	423	413	5867	5884	5883	3	686	*91	1 A	5 AD	
376	4	1129	424	414	5868	5885	5884	4	687	92	21 M	27 M	C B A
377	289, 1	1130	425	415	5869	5886	5885	5	688	93	9 A	*16 A	
378	2	1131	426	416	5870	5887	5886	6	689	94	29 M	1 A	g f
379	3	1132	427	417	5871	5888	5887	7	690	*95	17 A	21 A	D
380	4	1133	428	418	5872	5889	5888	8	691	96	5 A	*12 A	E D

Christian era Dionysian	Olympics	era of the foundation of Rome	Caesarean section of Antioch	to c., t e	4,-, 4,-, 4,-,	Byzantine world era	1	Era of the Greeks or Seleucids	Era of Diocletian or martyrs	Fig E,"k	Q _{ai} II	3	
382	290, 1	1134	429	419	5873	5890	5889	9	692	97	2 5 M	2 8 M	I.
383	2	1135	430	420	5874	5891	5890	10	693	98	1 3 A	1 7 A	
384	3	1136	431	421	5875	5892	5891	11	694	*99	2 A	9 A	
385	4	1137	432	422	5876	5893	5892	12	695	100	2 2 M	2 4 M	G I'
	291, 1	1138	433	423	5877	5894	5893	13	696	101	1 0 A	1 3 A	
386	2	1139	434	424	5878	5895	5894	14	697	102	3 0 M	5 A	D
387	3	1140	435	425	5879	5896	5895	15	698	*103	18 A	* 2 5 A	B A
388	4	1141	436	426	5880	5897	5896	1	699	101	7 A 27	9 A	G
389	292, 1	1142	437	427	5881	5898	5897	2	700	105	M	1 A	f
390	2	1143	438	428	5882	5899	5898	3	701	106	1 5 A	2 1 A	
391	3	1144	439	429	5883	5900	5899	4	702	*107	4 A	6 A	E
392	4	1145	440	430	5884	5901	5900	5	703	108	2 4 M	2 8 M	D C
393	293, 1	1146	441	431	5885	5902	5901	6	704	109	1 2 A	1 7 A	B
394	2	1147	442	432	5886	5903	5902	7	705	110	1 A	2 A	
395	3	1148	443	433	5887	5904	5903	8	706	*111	2 1 M	2 5 M	
396	4	1149	444	434	5888	5905	5904	9	707	112	9 A	1 3 A	f e
397	294, 1	1150	445	435	5889	5906	5905	10	708	113	2 9 M	* 5 A	D
398	2	1151	446	436	5890	5907	5906	11	709	114	1 7 A	1 8 A	
399	3	1152	447	437	5891	5908	5907	12	710	*115	5 A	1 0 A	AG ¹³
400	4	1153	448	438	5892	5909	5908	13	711	116	2 5 M	1 A	E
401	295, 1	1154	449	439	5893	5910	5909	14	712	117	1 3 A	* 1 4 A	
402	2	1155	450	440	5894	5911	5910	15	713	118	2 A	* 6 A	f
403	3	1156	451	441	5895	5912	5911	1	714	*119	2 2 M	2 9 M	
404	4	1157	452	442	5896	5913	5912	2	715	120	1 0 A	* 1 7 A	C 13
405	296, 1	1158	453	443	5897	5914	5913	3	716	121	3 0 M	2 A	A
406	2	1159	454	444	5898	5915	5914	4	717	122	1 8 A	* 2 2 A	
407	3	1160	455	445	5899	5916	5915	5	718	*123	7 A	1 4 A	
408	4	1161	456	446	5900	5917	5916	6	719	124	2 7 M	2 9 M	1 I
409	297, 1	1162	457	447	5901	5918	5917	7	720	125	1 5 A	1 8 A	
410	2	1163	458	448	5902	5919	5918	8	721	126	4 A	1 0 A	
411	3	1164	459	449	5903	5920	5919	9	722	*127	2 4 M	2 6 M	
412	4	1165	460	450	5904	5921	5920	10	723	128	1 2 A	1 4 A	
413	298, 1	1166	461	451	5905	5922	5921	11	721	129	1 A	6 A	E
414	2	1167	462	452	5906	5923	5922	12	725	130	21 M	* 2 2 A	D
415	3	1168	463	453	5907	5924	5923	13	726	*131	9 A	11M	c
416	4	1169	464	454	5908	5925	5924	14	727	132	2 9 M	2 A	B A
417	299, 1	1170	465	455	5909	5926	5925	15	728	133	1 7 A	* 2 2 A	G
418	2	1171	466	456	5910	5927	5926	1	729	134	5 A	7 A	r
419	3	1172	467	457	5911	5928	5927	2	730	*135	2 5 M	3 0 M	
420	4	1173	468	458	5912	5929	5928	3	731	136	1 3 A	1 8 A	D (
421	300, 1	1174	469	459	5913	5930	5929	4	732	137	2 A	* 3 A	
422	2	1175	470	460	5914	5931	5930	5	733	138	2 2 M	2 6 M	A
423	3	1176	471	461	5915	5932	5931	6	734	*139	1 0 A	1 5 A	G
424	4	1177	472	462	5916	5933	5932	7	735	140	3 0 M	* 6 A	F E
1. 25	301, 1	1178	473	463	5917	5934	5933	8	736	141	1 8 A	* 1 9 A	D
426	2	1179	474	464	5918	5935	5934	9	737	142	7 A	1 1 A	
127	3	1180	475	465	5919	5936	5935	10	738	*143	2 7 M	3 A	
128	4	1181	476	466	5920	5937	5936	11	739	144	1 3 A	2 2 A	A g
1. 29	302, 1	1182	477	467	5921	5938	5937	12	740	145	4 A	7 A	
430	2	1183	478	468	5922	5939	5938	13	741	146	M	3 0 M	

In 387, Easter is March 28 or April 18 in various Churches of the West.

In 397, Easter is March 29 in some Western Churches.

In 401, Easter is April 21 in some Western Churches.

In 402, Easter is March 30 in some Churches of the West.

In 404, Easter was on April 10 in some Churches of the West.

408, Easter is March 25 in some Western churches.

In 414, Easter is March 29 in Egypt.

In 417, Easter is March 25 in some Western Churches.

In 421, Easter is April 10 in all churches except in Egypt.

In 424, Easter is March 23 in the Churches of Africa.

In 425, Easter is 2^o. March in some Churches of the West. In

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[illegible]

In 463, Easter is March 24 in some Western Churches. In 475, Easter is April 13 in the Churches of Gaul.

In 482, Easter is April 18 in most churches in the West, March 21 in others.	In 499, Easter is April 18 in the Churches of Gaul.
En 495, Easter is April 2 in the Churches of Gaul.	In 501, Easter is March 25 in some Churches of the West.
En 496, Easter is April 21 in the Churches of Gaul.	In 516, Easter is April 10 in the Churches of Gaul.
	In 520, Easter is March 22 in some Churches of the West.

Fg n. g	e. Da o	Ei m ^b o	8 o Eric	g g 4Acs	E? 8N .. 't?	9 o ai U/	c+,1 ai U/	0 g- to ^c e F. : 0, 29 a g	1' kt az. g)- II II E-	= B II II	.0"					
531	327, 3	1284	579	569	6023	6040	6039	9	842	*2.17	17	a	20	a	1) C	
532	4	1285	580	570	6024	6041	6040	10	843	218	5	a	11	a	13	
533	328, 1	1286	581	571	6025	6042	6041	11	844	219	25	M	27	M	a	
534	2	1287	582	572	6026	6043	6042	12	845	250	13	a	16	a		
535	3	1288	583	573	6027	6044	6043	13	846		2	a	8	a		
536	4	1289	584	574	6028	6045	6044	1-1	817	2-72	22	M	*23	M	F E	
537	329, 1	1290	585	575	6029	6046	6045	15	848		10	a	12	a	I)	
538	2	1291	586	576	6030	6047	6046	1	849	2-1	30	M	4	a		
539	3	1292	587	577	6031	6048	6047	2	850	*255	18	a	24	a	13	
540	4	1293	588	578	6032	6049	6048	3	851	256	7	a	8	a	A (
541	330, 2	1294	589	579	6033	6050	6049	4	852	257	27	\	31	M		
542	3	1295	590	580	6034	6051	6050	5	853	258	\		20	a	D	
543	4	1296	591	581	6035	6052	6051	6	854	*259	2	•	27	M	C13	
544	331, 1	1297	592	582	6036	6053	6052	7	855	260	2	NI	16	a	a	
545	2	1298	593	583	6037	6054	6053	8	856	261	12	\	8	a	g	
546	3	1299	594	584	6038	6055	6054	9	857	262	I	a	24	M	Ed	
547	4	1300	595	585	6039	6056	6055	10	858	*263	21	M	12	a	c	
548	332, 1	1301	596	586	6040	6057	6056	11	859	264	9	a	4	a	13	
549	2	1302	597	587	6041	6058	6057	12	860	265	29	M	*24	a		
550	3	1303	598	588	6042	6059	6058	13	861	266	17	a	9	a	a	
551	4	1304	599	589	6043	6060	6059	14	862	*267	5	a	31	M	g	
552	333, 1	1305	600	590	6044	6061	6060	15	863	268	1: 11D	25	M	20	a	D
553	2	1306	601	591	6045	6062	6061	1	864	269	2	a	5	a		
554	3	1307	602	592	6046	6063	6062	2	865	270	3	a	28	M		
555	4	1308	603 "	593	6047	6064	6063	3	866	*271	4	M	16	a	B A.	
556	334, 1	1309	604	594	6048	6065	6064	4	867	272	5: 10D	10	a	1	a	g
557	2	1310	605	595	6049	6066	6065	5	868	273	6	M	*21	a		
558	3	1311	606	596	6050	6067	6066	6	869	274	7	a	13	a		
559	4	1312	607	597	6051	6068	6067	7	870	*275	8	a	28	M	Dc	
560	335, 1	1313	608	598	6052	6069	6068	8	871	276	9: 9J	27	M	17	a	B
561	2	1314	609	599	6053	6070	6069	9	872	277	10	a	9	a		
562	3	1315	610	600	6054	6071	6070	10	873	278	11	a	25	M	X14	
563	4	1316	611	601	6055	6072	6071	11	874	*279	12	M	13	a	F E	
564	336, 1	1317	612	602	6056	6073	6072	12	875	280	13: 8J	12	a	5	a	D
565	2	1318	613	603	6057	6074	6073	13	876	281	14	a	28	M		
566	3	1319	614	604	6058	6075	6074	14	877	282	15	M	10	a	AG ^B	
567	4	1320	615	605	6059	6076	6075	15	878	*283	16	a	21	a	E	
568	337, 1	1321	616	606	6060	6077	6076	1	879	284	17: 7J	29	M	1	a	
569	2	1322	617	607	6061	6078	6077	2	880	285	18	a	*6	a		
570	3	1323	618	608	6062	6079	6078	3	881	286	19	a	29	M	C B	
571	4	1324	619	609	6063	6080	6079	4	882	*287	20	M	17	a	a	
572	338, 1	1325	620	610	6064	6081	6080	5	883	288	21: 6D	13	a	9	M	g
573	2	1326	621	611	6065	6082	6081	6	884	289	22	a	25	M		
574	3	1327	622	612	6066	6083	6082	7	885	290	23	M	14	a		
575	4	1328	623	613	6067	6084	6083	8	886	*291	24	a	5	a	Ed	
576	339, 1	1329	624	614	6068	6085	6084	9	887	292	25: .1	30	\	*25	a	13
577	2	1330	625	615	6069	6086	6085	10	888	293	26: 2ti	7	a	2	a	a
578	3	1331	626	616	6070	6087	6086	11	889	294	27	7• \	10	a	gr	
579	4	1332	627	617	6071	6088	6087	12	890	*295	28	I	2	a		
580	339, 2	1333	628	618	6072	6089	6088	13	891	291	29: -1 D	15	21	a		

In 536, Easter is March 30 in the Churches of Gaul.

In 550, Easter is April 17 in Gaul and Brittany.

In 558, Easter is March 24 in some Western Churches.

In 570, Easter is April 13 for the Latins, Armenians, Nestorians and Jacobites.

In 577, Easter was April 18 in most of Gaul and March 21 in Spain.

Dionysian Christian era		:g E:	Caesarean section of Antioch	n°.. this r°c at	Alexandrian World Era	F . .		o	here Fb ^d	Z550 to> 4) g		t'o) t.>.4 intelli gence quote	that	
581	340.	1	629	619	6073	6C90	6089	14	892	297	30	4	6 A	E
582		2	630	620	6074	6C91	6090	15	893	298	31	24	29 M	D
583		3	631	621	6075	6C92	6091		894	*299	32	12	18 A	BAC
584		4	632	622	6076	6C93	6092		895	300	33: July 3		2 A	
585	341,	1	633	623	6077	6C94	6093	3	896	301	34	21	25 M	G
586		2	634	624	6078	6C95	6094	4	897	302	35	9	14 A	
587		3	635	625	6079	6C96	6095	5	898	*303	36	29	30 M	DC ^F
588		4	636	626	6080	6C97	6096	6	899	304	37: July 2	5	18 A	E
589	342,	1	637	627	6081	6C98	6097	7	900	305	38	17	10 A	A
590		2	638	628	6082	6C99	6098	8	901	306	39	25	*26 ,M	B
591		3	639	629	6083	6100	6099	9	902	*307	40	13	15 A	G
592		4	640	630	6084	6101	6100	10	903	308	41:	2	6 A	F E
593	343,	1	641'	631	6085	6102	6101	11	904	309	42	22	29 M	D
594		2	642	632	6086	.6103	6102	12	905	310	43	10	*11 A	A G
595		3	643	633	6087	6104	6103	13	906	*311	44	30	3 A	
596		4	644	634	6088	6105	6104	14	907	312	45:June 30	18	22 A	E ^B
597	344,	1	645	635	6089	6106	6105	15	908	313	46	7	14 A	
598		2	646	636	6090	6107	6106	1	909	314	47	27	30 M	f
599		3	647	637	6091	6108	6107	2	910	*315	48	15	19 A	
600		4	648	638	6092	6109	6108	3	911	316	49:June 29	4	10 A	C B
601	345,	1	649	639	6093	6110	6109	4	912	317	50	24	26 M	a
602	•	2	650	640	6094	6111	6110	5	913	318	51	12	15 A	
603		3	651	641	6095	6112	6111	6	914	*319	52		7 A	f
604		4	652	642	6096	6113	6112	7	915	320	53: June 28	21	22 M	B D
605	3.16,	1	653	643	6097	6114	6113	8	916	321	54	9	11 A	
606		2	654	644	6098	6115	6114	9	917	322	55	29	3 A	c
607		3	655	645	6099	6116	6115	10	918	*323	56	17	23 A	
608		4	656	646	6100	6117	6116	11	919	324	57: June 27	5	7 A	G F
609	347,	1	657	647	6101	6118	6117	12	920	325	58	25	30 M	
610		2.	658	648	6102	6119	6118	13	921	326	59	13	19 A	E
611		3	659	649	6103	6120	6119	14	922	*327	60	2	4 A	
612		4	660	650	6104	6121	6120	15	923	328	61: 26juin_	22	26 M	BAC
613			661	651	6105	6122	6121	1	924	329	62	10	15 A	
614			662	652	6106	6125	6122	2	925	330	63	30	31 M	F
615			663	653	6107	6126	6123	3	926	*331	64	18	20 . A	
616			664	654	6108	6128	6124	4	927	332	65: June 25	7	11 A	DC ^E
617	E		665	655	6109	6129	6125	5	928	333	66	27	3 A	
618	a _t ,...		666	656	6110	61	6126	6	929	334	67	15	16 A	B
619	;		667	657	.6111	6130	6127	7	930	*335	68	4	8 A	G
620	"•"--		668	658	6112	6131	6128	8	931	336	69: June 24	24	30 M	F E
621			669	659	6113	6132	6129	9	932	337	70	12	19 A	D
622	1: July 16		670	660	6114	6133	6130	10	933	338	71	21	4 A	A G
623	2: 5 —		671	661	6115	6134	6131	11	934	*339	72	21	27 M	B
624	3:24 June		672	662	6116	6135	6132	12	935	340	73: June 23	9	15 A	
625	4:13 —		673	663	6117	6136	6133	13	936	341	74	29	31 M	f
626			674	664	6118	6137	6134	14	937	342	75	17	20 A	
627	5: 2 --		675	665	6119	6138	6135	15	938	*343	76	5	12 A	E
628	6:May 23		676	666	6120	61	6136		939	344	77: June 22	25	27 M	C B
629	7:11 -		677	667	6121	61	6137	2	940	345	78	13	16 A	A
	8: 1 --				6121	61	6138	3	941	346	79	2	8 A	g

In 590, Easter is April 2 in some Western churches.

In 594, Easter cst on April 18 in Gaul.

	e	Rd	E17, -2	⁰ -2	d		Tin E	Ère de Diocletien ou des martyrs	Ère arménienne (avec le commencement de l'année)	Ère de l'Hégi (avec le commencement de l'année)	c z t a	A)	
	4 : 4		FeL	L ^a _{cp}			cl' 2).	Ao.			X - (
681	729	719	6173	6190	6189	9	992	397	130: June 9	62: Sept. 20	9 A	14	f
682	730	720	6174	6191	6190	10	993	398	131	63: 10	29 M	30	E
683	731	721	6175	6192	6191	11	994	*399	132	64: August 30	17 A	19	D
684	732	722	6176	6193	6192	12	995	400	133: June 8	65: 18	5 A	10	c
685	733	723	6177	6194	6193	13	996	401	134	66: 8	25 M	*26	a
686	734	724	6178	6195	6194	14	997	402	135	67: July 28	13	15	g
687	735	725	6179	6196	6195	15	998	*403	136	68: 18	2 A	7	f
688	736	726	6180	6197	6196	1	999	404	137: June 7	69: 6	22 M	29	E D
689	737	727	6181	6198	6197	2	1000	405	138	70: June 25	10 A	*11	B
690	738	728	6182	6199	6198	3	1001	406	139	71: 15	30 M	3	
691	739	729	6183	6200	6199		1002	*407	140	72: 4	18 A	23	c
692	740	730	6184	6201	6200	5	1003	408	141: June 6	73: May 23	7 A	14	
693	741	731	6185	6202	6201	6	1004	409	142	74: 13	27 M	30	G F
694	742	732	6186	6203	6202	7	1005	410	143	75: 2	15 A	19	
695	743	733	6187	6204	6203	8	1006	*411	144	76: April 21	4 A	11	E
696	744	734	6188	6205	6204	9	1007	412	145: June 5	77: 10	24 M	26	c
697	745	735	6189	6206	6205	10	1008	413	146	78: March 30	12 A	15	B A
698	746	736	6190	6207	6206	11	1009	414	147	79: 20	1 A	7	g
699	747	737	6191	6208	6207	12	1010	*415	148	80: 9	21 M	23	
700	748	738	6192	6209	6208	13	1011	416	149: June 4	81: Feb. 26	9 A	11	DC ^F
701	749	739	6193	6210	6209	14	1012	417	150	82: 15	29 M	. 3	E
702	750	740	6194	6211	6210	15	1013	418	151	83: 4	17 A	23	
703	751	741	6195	6212	6211	1	1014	*419	152	84: Jan. 24	5 A	8	
704	752	742	6196	6213	6212	2	1015	420	153: June 3	85: 14	25 M	30	a
705	753	743	6197	6214	6213	3	1016	421	154	86: 2	13 A	19	g F E
706	754	744	6198	6215	6214	4	1017	422	155	88: 12	2 A	4 A	D c
707	755	745	6199	6216	6215	5	1018	*423	156	89: 1	22 M	27 M	B
708	756	746	6200	6217	6216	6.	1019	424	157: June 2	90: Nov. 20	10 A	15 A	Æ G
709	757	747	6201	6218	6217	7	1020	425	158	91: 9	30 M	31 M	
710	758	748	6202	6219	6218	8	1021	426	159	92: Oct. 29	18 A	20 A	f
711	759	749	6203	6220	6219	9	1022	*427	160	93: 19	7 A	12 A	
712	760	750	6204	6221	6220	10	1023	428	161: June 1	94: 7	27 M	3 A	C B
713	761	751	6205	6222	6221	11	1024	429	162	95: Sept. 26	15 A	16 A	a
714	762	752	6206	6223	6222	12	1025	430	163	96: 16	4 A	8 A	
715	763	753	6207	6224	6223	13	1026	*431	164	97: 5	24 M	31 M	f
716	764	754	6208	6225	6224	14	1027	432	165: May 31	98: August 25	12 A	19 A	E (I)
717	765	755	6209	6226	6225	15	1028	433	166	99: 14	1 A	4 A	
718	766	756	6210	6227	6226	1	1029	434	167	100: 3	21 M	27 M	13
719	767	757	6211	6228	6227	2	1030	*435	168	101: July 24	9 A	16 A	A
720	768	758	6212	6229	6228	3	1031	436	169: May 30	102: 12	29 M	31	NI
721	769	759	6213	6230	6229	4	1032	437	170	103: 1	17 A	20 A	
722	770	760	6214	6231	6230	5	1033	438	171	104: June 21	5 A	12 A	D
723	771	761	6215	6232	6231	6	1034	*439	172	105: 10	25 M	28 M	
724	772	762	6216	6233	6232	7	1035	440	173: May 29	106: May 29	13 A	16 A	B A
725	773	763	6217	6234	6233	8	1036	441	174	107: 19	2 A	8 A	g
726	774	764	6218	6235	6234		101037	442	175	108: 8	22 M	24 M	
727	775	765	6219	6236	6235	9	101038	*443	176	109: April 28	10 A	13 A	
728	776	766	6220	6237	6236	11	101039	444	177: May 28	110: 16	30 M	1 A	D
729	777	767	6221	6238	6237	12	101040	445	178	111: 5	18	21 A	
730	778	768	6222	6239	6238	13	101041	446	179	112: March 26	7 A	9 A	B

In 685, Easter is April 2 in Gaul.

In 689, Easter is April 18 in Gaul.

GENERAL CHRONOLOGICAL TABLE																	
Ère chrétienne d'Antioche	Ère césar d'Antio	Ère d'Ép	Ère mon d'Alex	Ère mon probyza	Ère mon lyzant	Indict	Ère des ou des Sé	Ère de l'É ou des m	Ère anai l'ave comme de l'an	Ère de l' (ave commencement de l'année)	Terme pascal XIV lune	M - mars A - avril	Les Pâques	Letres dominicales			
731	69	6223	6240	6239	1	31	447	180	113 : 15 mars	27 M	1 A						
732							448	181 : 27 mai	114 : 3	15 A	20 A						
733							449	182	115 : 21 févr.	4 A	5 A						
734							450	183	116 : 10	24 M	28 M						
735							451	184	117 : 31 janv.	12 A	17 A						
736							452	185	118 : 20	1 A	8 A						
737							453	186	119 : 8	21 M	24 M						
738							454	187	120 : 29 déc.	9 A	13 A						
739							455	188	121 : 18								
740							456	189	122 : 7								
741							457	190	123 : 27 juin	12 A	14 A						
742							458	191	124 : 15								
743							459	192	125 : 4								
744							460	193	126 : Oct. 25								
745							461	194	127 : 13								
746							462	195	128 : 3								
747							463	196	129 : Sept. 22								
748							464	197	130 : 11								
749							465	198	131 : August 31								
750							466	199	132 : 20								
751							467	200	133 : 9								
752							468	201	134 : July 30								
753							469	202	135 : 18								
754							470	203	136 : 7								
755							471	204	137 : June 27								
756							472	205	138 : 16								
757							473	206	139 : 5								
758							474	207	140 : May 25								
759							475	208	141 : 14								
760							476	209	142 : 4								
761							477	210	143 : April 22								
762							478	211	144 : 11								
763							479	212	145 : 1								
764							480	213	146 : March 21								
765							481	214	147 : 10								
766							482	215	148 : Feb. 27								
767							483	216	149 : 16								
768							484	217	150 : 6								
769							485	218	151 : Jan. 26								
770							486	219	152 : 14								
771							487	220	153 : 4th"								
772							488	221	154 : 24 Dec.								
773							489	222	155 : 13								
774							490	223	156 : 2								
775							491	224	157 : Nov. 21								
776							492	225	158 : 11								
777							493	226	159 : Oct. 31								
778							494	227	160 : 19								
779							495	228	161 : 9								
780							496	229	162 : Sept. 28								
									163 : 17								
									164 : 6								

In 740, Easter is April 17 in Gaul.

In 743, Easter is April 21 in Gaul.

In 748, Easter is March 24 in some Western churches.

In 760, Easter is April 13 in Gaul as well as in Armenia.

In 763, Easter is April 10 in Gaul. In 767, Easter is March 22 in Gaul. In 780, Easter is April 2 in Gaul.

Dionysian Christian era	Ab urbe condita	Alexandria World Era	Byzantine world era	Seleucid era	Era of the Greeks or Seleucids	Era of Diocletian or martyrs	Ab urbe condita	Ab urbe condita	Ab urbe condita	Ab urbe condita	Easter			
781	829	6273	6289	4	1092	497	230: May 15	165: August 26	6385	1	13	a	15	a
782	830	6274	6290	5	1093	498	231	166:15	6386	2	2	a	7	a
783	831	6275	6291	6	1094	*499	232	167: 5th	6387	3	22	M	*23	M
784	832	6276	6292	7	1095	500	233: May 14	168:24. July.	6388	4	10	a	*11	a
785	833	6277	6293	8	1096	501	234	169: 14	6389	5	30	M	3	a
786	834	6278	6294	9	1097	502	235	170: 3rd	6390	6	18	a	*23	a
787	835	6279	6295	10	1098	*503	236	171: June 22	6391	7	7	a	8	a
788	836	6280	6296	11	1099	504	237: May 13	172: 11	6392	8	27	M	30	M
789	837	6281	6297	12	1100	505	238	173: May 31	6393	9	15	a	19	a
790	838	6282	6298	13	1101	506	239	174:20	6394	10	4	a	11	a
791	839	6283	6299	14	1102	*507	240	175:10	6395	11	24	M	27	M
792	840	6284	6300	15	1103	508	241: May 12	176: April 28	6396	12	12	a	15	a
793	841	6285	6301	1	1104	509	242	177:18	6397	13	1	a	7	a
794	842	6286	6302	2	1105	510	243	178: 7th	6398	14	21	M	23	M
795	843	6287	6303	3	1106	*511	244	179: March 27	6399	15	9	a	12	a
796	844	6288	6304	4	1107	512	245: May 11	180: 16	6400	16	29	M	3	a
797	845	6289	6305	5	1108	513	246	181: 5th	6401	17	17	a	23	a
798	846	6290	6306	6	1109	514	247	182:Feb 22	6402	18	5	a	8	a
799	847	6291	6307	7	1110	*515	248	183 : 12	6403	19	25	M	31	M
800	848	6292	6308	8	1111	516	249: May 10	184: 1st	6404	20	13	a	19	a
801	849	6293	6309	9	1112	517	250	185: Jan. 20	6405	21	2	a	4	a
802	850	6294	6310	10	1113	518	251	186: 10 187:30 Dec.	6406	22	22	M	27	M
803	851	6295	6311	11	1114	*519	252	188 :20	6407	23	10	a	16	a
804	852	6296	6312	12	1115	520	253: May 9	189: 8th	6408	24	30	M	31	M
805	853	6297	6313	13	1116	521	254	190:Nov 27	6409	25	18	a	20	a
806	854	6298	6314	14	1117	522	255-	191 : 17	6410	26	7	a	12	a
807	855	6299	6315	15	1118	*523	256	192: 6th	6411	27	27	M	28	M
808	856	6300	6316	1	1119	524	257: May 8	193:Oct. 25	6412	28	15	a	16	a
809	857	6301	6317	2	1120	525	258'	194: 15	6413	29	4	a	8	a
810	858	6302	6318	3	1121	526	259	195: 4th	6414	30	24	M	31	neit
811	859	6303	6319	4	1122	*527	260	196: 23Sept.	6415	31	12	a	13	a
812	860	6304	6320	5	1123	528	261: May 7	197:12	6416	32	1	a	4	a
813	861	6305	6321	6	1124	529	262	198: 1st	6417	33	21	M	27	M
814	862	6306	6322	7	1125	530	263	199:August 22	6418	34	9	a	16	a
815	863	6307	6323	8	1126	*531	264	200: 11	6419	35	29	M	1	a
816	864	6308	6324	9	1127	532	265: May 6	201: July 30	6420	36	17	a	20	a
817	865	6309	6325	10	1128	533	266	202 :20	6421	37	5	a	12	a
818	866	6310	6326	11	1129	534	267	203: 9	6422	38	25	M	28	M
819	867	6311	6327	12	1130	*535	268	204:June 28	6423	39	13	a	17	a
820	868	6312	6328	13	1131	536	269: May 5	205: 17	6424	40	2	a	8	a
821	869	6313	6329	14	1132	537	270	206: 6th	6425	41	22	M	24	M
822	870	6314	6330	15	1133	538	271	207: May 27	6426	42	10	a	13	a
823	871	6315	6331	1	1134	*539	272	208:16	6427	43	30	M	5	a
824	872	6316	6332	2	1135	540	273: May 4	209: 4	6428	44	18	a	24	a
825	873	6317	6333	3	1136	541	274	210:April 24	6429	45	7	a	9	a
826	874	6318	6334	4	1137	542	275	211 : 13	6430	46	27	M	1	a
827	875	6319	6335	5	1138	*543	276	212: 2nd	6431	47	15	a	21	a
828	876	6320	6336	6	1139	544	277: May 3	213: March 22	6432	48	4	a	5	a
829	877	6321	6337	7	1140	545	278	214 : 11	6433	49	24	M	28	M
830	878	6322	6338	8	1141	546	279	215:Feb 28	6434	50	12	a	17	a

En 783, Easter is March 30 in Gaul.

En 784, Easter is April 18 in Gaul.

In 786, Easter is March 26 in Gaul.

chrétienne byzantine	Ere césarienne d'Antioche	Ere mondiale d'Alexandrie	Ere mondiale byzantine	Indictions	Ere des Grecs et des Séleucides	Ere de Dioclétien des martyrs	Ere arménienne avec le commencement de l'année	Ere de l'Hégire des musulmans commencement de l'année	Chronologie arabique et romaine de pascal (corrigée)	IV lune = MARS = AVRIL	Fêtes	Lettres dominicales	5 Ei II	R	2 a 5
882	929	6373	6389	14	1192	331	331	268 : 1 ao	8						
883	930	6374	6390	15	1193	332	332	269 : 21 ju							
884	931	6375	6391	16	1194	333	333	270 : 11							
885	932	6376	6392	17	1195	334	334	271 : 29 ju							
886	933	6377	6393	18	1196	335	335	272 : 18							
887	934	6378	6394	19	1197	336	336	273 : 8							
888	935	6379	6395	20	1198	337	337	274 : May 28							
889	936	6380	6396	21	1199	338	338	275 : 16							
890	937	6381	6397	22	1200	339	339	276 : 6							
891	938	6382	6398	23	1201	340	340	277 : April 25							
892	939	6383	6399	24	1202	341	341	278 : 15							
893	940	6384	6400	25	1203	342	342	279 : 3							
894	941	6385	6401	26	1204	343	343	280 : March 23							
895	942	6386	6402	27	1205	344	344	281 : 13							
896	943	6387	6403	28	1206	345	345	282 : 2							
897	944	6388	6404	29	1207	346	346	283 : Feb. 19							
898	945	6389	6405	30	1208	347	347	284 : 8							
899	946	6390	6406	31	1209	348	348	285 : Jan. 28							
900	947	6391	6407	1	1210	349	349	286 : 17							
901	948	6392	6408	2	1211	350	350	287 : 7, 6504							
902	949	6393	6409	3	1212	351	351	288 : Dec. 26							
903	950	6394	6410	4	1213	352	352	289 : 16							
904	951	6395	6411	5	1214	353	353	290 : 5							
905	952	6396	6412	6	1215	354	354	291 : Nov. 24							
906	953	6397	6413	7	1216	355	355	292 : 13							
907	954	6398	6414	8	1217	356	356	293 : 2							
908	955	6399	6415	9	1218	357	357	294 : Oct. 22							
909	956	6400	6416	10	1219	358	358	295 : 12							
910	957	6401	6417	11	1220	359	359	296 : Sept. 30							
911	958	6402	6418	12	1221	360	360	297 : 20							
912	959	6403	6419	13	1222	361	361	298 : 9							
913	960	6404	6420	14	1223	362	362	299 : August 29							
914	961	6405	6421	15	1224	363	363	300 : 18							
915	962	6406	6422	16	1225	364	364	301 : 7							
916	963	6407	6423	17	1226	365	365	302 : July 27							
917	964	6408	6424	18	1227	366	366	303 : 17							
918	965	6409	6425	19	1228	367	367	304 : 5							
919	966	6410	6426	20	1229	368	368	305 : June 24							
920	967	6411	6427	21	1230	369	369	306 : 14							
921	968	6412	6428	22	1231	370	370	307 : 3							
922	969	6413	6429	23	1232	371	371	308 : May 23							
923	970	6414	6430	24	1233	372	372	309 : 12							
924	971	6415	6431	25	1234	373	373	310 : 1							
925	972	6416	6432	26	1235	374	374	311 : April 21							
926	973	6417	6433	27	1236	375	375	312 : 9							
927	974	6418	6434	28	1237	376	376	313 : March 29							
928	975	6419	6435	29	1238	377	377	314 : 19							
929	976	6420	6436	30	1239	378	378	315 : 8							
930	977	6421	6437	31	1240	379	379	316 : Feb. 25							
	978	6422	6438	1	1241			317 : 14							
				2				318 : 3							

oâ	B	that			It	Ère de Dioclétien ou des martyrs		e.2 5n-e		off	0th II II	e.) F.	
1>.g .a 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 956 957 958 959 960 961 962 963 964 965 946 947 948 949 950 951 952 953 954 955 941 942 943 944 945 936 937 938 939 940 931 932 933 934 935	bb ab	n		e ² , E _{gr}			>"11 ee0, ab	"2gg p- E	e Pé,2				.i 1
968	979	6423	6439	4	1242	*647	380: April 8	319: Jan. 24	6535 151	5 a	10		
969	980	6424	6440	5	1243	648	381: April 7	320: 13	6536 152	25 M	1		AG ^B
970	981	6425	6441	6	1244	649		382,321:	6537 153	13 a	14		E
971	982	6426	6442	7	1245	650		323: 11	6538 154	2 a	6		f
972	983	6427	6443	8	1246	*651	384	324: Nov. 30	6539 155	22 M	29		
973	984	6428	6444	9	1247	652	385: April 6	325: 19	6540 156	10 a	17		C b
974	985	6429	6445	10	1248	653		326: 8th	6541 157	30 M	2		a
975	986	6430	6446	11	1249	654		327: Oct. 29	6542 158	18 a	22		G
976	987	6431	6447	12	1250	*655	388	328: 18	6543 159	7 a	14		ED ^F
977	988	6432	6448	13	1251	656	389: April 5	329: 6	6544 160	27 M	29		B
978	989	6433	6449	14	1252	657		330: Sept. 26	6545 161	15 a	18		C
979	990	6434	6450	15	1253	658		331: 15	6546 162	4 a	10		G F
956	991	6435	6451	1	1254	*659	392	332: 4	6547 163	24 M	26		
957	992	6436	6452	2	1255	660	393: April 4	333: August 24	6548 164	12 a	14		
958	993	6437	6453	3	1256	661	394	334: 13	6549 165	1 a	6		
959	994	6438	6454	4	1257	662	395	335: 2	6550 166	21 M	22		E
960	995	6439	6455	5	1258	*663	396	336: July 23	6551 167	9 a	11		D
961	996	6440	6456	6	1259	664	397: April 3	337: 11	6552 168	29 M	2		C
962	997	6441	6457	7	1260	665	398	338: 1	6553 169	17 a	22		B A
963	998	6442	6458	8	1261	666	399	339: June 20	6554 170	5 a	7		G
964	999	6443	6459	9	1262	*667	400	340: 9th	6555 171	25 M	30		DC ^F
965	1000	6444	6460	10	1263	668	401: April 2	341: May 29	6556 172	13 a	18		E
946	1001	6445	6461	11	1264	669	402	342: 18	6557 173	2 a	3		B
947	1002	6446	6462	12	1265	670	403	343: 7	6558 174	22 M	26		G
948	1003	6447	6463	13	1266	*671	404	344: April 27	6559 175	10 a	15		FE
949	1004	6448	6464	14	1267	672	405: April 1	345: 15	6560 176	30 M	6		AG ^D
950	1005	6449	6465	15	1268	673	406	346: 4	6561 177	18 a	19		c
951	1006	6450	6466	1	1269	674	407	347: March 25	6562 178	7 a	11		B
952	1007	6451	6467	2	1270	*675	408	348: 14	6563 179	27 M	3		E D
953	1008	6452	6468	3	1271	676	409: March 31	349: 3	6564 180	15 a	22		B
954	1009	6453	6469	4	1272	677	410	350: 20	6565 181	4 a	7		
955	1010	6454	6470	5	1273	678	411	351: 9	6566 182	24 M	30		
941	1011	6455	6471	6	1274	*679	412	352: Jan. 30	6567 183	12 a	19		
942	1012	6456	6472	7	1275	680	413: March 30	353: 19	6568 184	1 a	3		
943	1013	6457	6473	8	1276	681		414,354:	6569 185	21 M	26		E
944	1014	6458	6474	9	1277	682	415	355: 17	6570 186	9 a	15A		CB
945	1015	6459	6475	10	1278	*683	416	357: 7	6571 187	29 M	31M		a
936	1016	6460	6476	11	1279	684	417: March 29	358: Nov. 25	6572 188	17 a	19A		F
937	1017	6461	6477	12	1280	685	418	359: 14	6573 189	5 a	11A		ED
938	1018	6462	6478	13	1281	686	419	360: 4	6574 190	25 M	27M		B
939	1019	6463	6479	14	1282	*687	420	361: Oct. 24	6575 191	13 a	16A		c
940	1020	6464	6480	15	1283	688	421: March 28	362: 12	6576 192	2 a	7A		
931	1021	6465	6481	1	1284	689		422,363:	6577 193	22 M	23M		
932	1022	6466	6482	1	1285	690		423,364: Sept. 21	6578 194	10 a	12A		
933	1023	6467	6483	3	1286	*691	424	365: 10	6579 195	30 M	4A		
934	1024	6468	6484	4	1287	692	425: March 27	366: August 30	6580 196	18 a	23A		G F
935	1025	6469	6485	5	1288	693	126	367: 19	6581 197	7 a	8A		E
	1026	6470	6486	6	1289	694	127	368: 9	6582 198	27 M	31M		C
	1027	6471	6487	7	1290	*695	128	369: July 29	6583 199	15 a	20A		B
	1028	6472	6488	8	1291	696	429: March 26	370: 17	6584 200	4 a	11A		

Dionysian Christian era	Caesarean section of Antioch	Alexandria World Era	Byzantine World Era	Indic Era	Era of the Greeks or Seleucids	Era of Diocletian ' or martyr	Year	Calendar '12	3 to er.1	'a' p % g	e Cl II f			
981	1029	6473	6489	9	1292	697	430:5	March 6	371: July 7	6585	201	24 M	27	I.
982	1030	6474	6490	10	1293	698	431		372: June 26	6586	202	12 a	16 A	A
983	1031	6475	6491	11	1294	*699	432		373 : 15	6587	203	1 a	8 A	G
984	1032	6476	6492	12	1295	700	433:	March 5	374: 4	6588	204	21 M	23 M	F E
985	1033	6477	6493	13	1296	701	434		375: May 24	6589	205	9 a	12 a	
986	1034	6478	6494	14	1297	702	435		376 : 13	6590	206	29 M	4 a	AG ^C
987	1035	6479	6495	15	1298	*703	436		377: 3	6591	207	17 a	24 a	B
988	1036	6480	6496	1	1299	704	437:5	March 4	378: April 21	6592	208	5 a	8 a	
989	1037	6481	6497	2	1300	705	438		379 : 11	6593	209	25 M	31 M	
990	1038	6482	6498	3	1301	706	439		380: March 31	'6594	210	13 a	20 a	E
991	1039	6483	6499	4	1302	*707	440		381 : 20	6595	211	2 a	5 a	
992	1040	6484	6500	5	1303	708	441::	March 3	382: 9	6596	212	22neith	27 M	C B
993	1041	6485	6501	6	1304	709	442		383: Feb. 26	6597	213	10 a	16 a	a
994	1042	6486	6502	7	1305	710	443		384 : 15	6598	214	30 M	1 a	g
995	1043	6487	6503	8	1306	*711	444		385: 5	6599	215	18 a	21 a	
996	1044	6488	6504	9	1307	712	445:5	March 2	386: Jan. 25	6600	216	7 a	12 a	ED ^F
997	1045	6489	6505	10	1308	713	446		387: 14	6601	217	27 M	28 M	
998	1046	6490	6506	11	1309	714	447		388: 3,6602		218	15 a	17 a	B
999	1047	6491	6507	12	1310	*715	448		389: Dec. 23			4 a	9 a	
1000	1048	6492	6508	13	1311	716	449:5	March 1	390 : 13	6603	219	4 a	9 a	
									391: 1	6604	220	24 M	31 M	GF
1001	1049	6493	6509	14	1312	717	450		392: Nov. 20	6605	221	12 a	13 a	
1002	1050	6494	6510	15	1313	718	451		393 : 10	6606	222	1 a	5 a	E
1003	1051	6495	6511	1	1314	*719	452		394: Oct. 30	6607	223	21 M	28 M	c
1004	1052	6496	6512	2	1315	720	453:5	March 0	395 : 18	6608	224	9 a	16 a	B A
1005	1053	6497	6513	3	1316	721	454		396: 8	6609	225	29 M	1 a	g
1006	1054	6498	6514	4	1317	722	455		397: Sept. 27	6610	226	17 a	21 A*	f
1007	1055	6499	6515	5	1318	*723	456		398: 17	6611	227	5 a	*6 a	
1008	1056	6500	6516	6	1319	724	457:1	March 9	399: 5	6612	228	25 M	28 M	D C
1009	1057	6501	6517	7	1320	725	458		400: August 25	6613	229	13 a	17 a	
1010	1058	6502	6518	8	1321	726	459		401 : 15	6614	230	2 a	9 a	B
1011	1059	6503	6519	9	1322	*727	460		402: 4	6615	231	22 M	25 M	g
1012	1060	6504	6520	10	1323	728	461:1	March 8	403: July 23	6616	232	10 a	13 a	fe
1013	1061	6505	6521	11	1324	729	462		404 : 13	6617	233	30 M	5 a	D
1014	1062	6506	6522	12	1325	730	463		405: 2	6618	234	18 a	25 a	
1015	1063	6507	6523	13	1326	*731	464		406: June 21	6619	235	7 a	10 a	
1016	1064	6508	6524	14	1327	732	465:1	March 7	407 : 10	6620	236	27 M	1 a	AG ^B
1017	1065	6509	6525	15	1328	733	466		408: May 30	6621	237	15 a	21 a	
1018	1066	6510	6526	1	1329	734	467		409 : 20	6622	238	4 a	6 a	E
1019	1067	6511	6527	2	1330	*735	468		410: 9	6623	239	24 M	29 M	
1020	1068	6512	6528	3	1331	736	469:1	March 6	411: April 27	6624	240	12 a	17 a	C B
1021	1069	6513	6529	4	1332	737	470		412: 17	6625	241	1 a	2 a	a
1022	1070	6514	6530	5	1333	738	471		413: 6	6626	242	21 M	25 M	g
1023	1071	6515	6531	6	1334	*739	472		III: March 26	6627	243	9 a	14 a	
1024	1072	6516	6532	7	1335	740	473:1	March 5	115 : 15	6628	244	29 M	5 a	ED ^F
1025	1073	6517	6533	8	1336	741	474		416: 4	6629	245	17 a	18 a	
1026	1074	6518	6534	9	1337	742	475		417: Feb. 22	6630	246	5 a	10 a	B
1027	1075	6519	6535	10	1338	*743	476		418 : 11	6631	247	25 M	26 M	
1028	1076	6520	6536	1. 1	1339	744	477:1	March 4	419: Jan. 31	6632	248	13 a	14 a	G F
1029	1077	6521	6537	12	1340	745	478		420 : 20	6633	249	2 a	6 a	
1030	1078	6522	6538	13	1341	746	479	421:	9,6634					
									422: Dec. 29	250	22 M	29 neith	her	D

In 1007, Easter is April 13 for Armenians, Nestorians and the Jacobites.

****	Christian era Dionysian	Caesarean section of the era	Alexandrian World Era	Byzantine world era		Era of the Greeks or Seleucids	e.c. Hellenistic or Roman	41	.. Ç	Ère mondiale géorgienne et Kronikoni (cycle pascal géorgien)	Terme pascal XIV lune M = mars A = avril		7
1032	1080	6523	6539	14	1342	*747	480: March 14	423: Dec. 19	6635 251	10 A	11 A	c	
1033	1081	6524	6540	15	1343	748	481: March 13	424: 7	6636 252	30 M	2 A	B A	
1034	1082	6525	6541	1	1344	749	482	425: Nov. 26	6637 253	18 A	22 A	F	
1035	1083	6526	6542	2	1345	750	483	426: 16	6638 254	7 A	14 A	DC ^E	
1036	1083	6527	6543	3	1346	*751	484	427: 5	6639 255	27 M	30 M	B	
1037	1084	6528	6544	4	1347	752	485: March 12	428: Oct. 25	6640 256	15 A	18 A	FE ^G	
1038	1085	6529	6545	5	1348	753	486	429: 14	6641 257	4 A	10 A	D	
1039	1086	6530	6546	6	1349	754	487	430: 3	6642 258	24 M	26 M	AG ^B	
1040	1087	6531	6547	7	1350	*755	488	431: Sept. 23	6643 259	12 A	15 A	E F	
1041	1088	6532	6548	8	1351	756	489: March 11	432: 11	6644 260	1 A	6 A	C B _a	
1042	1089	6533	6549	9	1352	757	490	433: August 31	6645 261	21 M	22 M	G	
1043	1090	6534	6550	10	1353	758	491	434: 21	6646 262	9 A	11 A	ED ^F	
1044	1091	6535	6551	11	1354	*759	492	435: 10	6647 263	29 M	3 A	13	
1045	1092	6536	6552	12	1355	760	493: March 10	436: July 29	6648 264	17 A	22 A	B A	
1046	1093	6537	6553	13	1356	761	494	437: 19	6649 265	5 A	7 A	F _D	
1047	1094	6538	6554	14	1357	762	495	438: 8	6650 266	25 M	30 M	D	
1048	1095	6539	6555	15	1358	*763	496	439: June 28	6651 267	13 A	19 A	AG ^B	
1049	1096	6540	6556	1	1359	764	497: March 9	440: 16	6652 268	2 A	3 A	E F	
1050	1097	6541	6557	2	1360	765	498	441: 5	6653 269	22 M	26 M	C B _a	
1051	1098	6542	6558	3	1361	766	499	442: May 26	6654 270	10 A	15 A	G	
1052	1099	6543	6559	4	1362	*767	500	443: 15	6655 271	30 M	31 M	ED ^F	
1053	1100	6544	6560	5	1363	768	501: March 8	444: 3	6656 272	18 A	19 A	13	
1054	1101	6545	6561	6	1364	769	502	445: April 23	6657 273	7 A	11 A	B A	
1055	1102	6546	6562	7	1365	770	503	446: 12	6658 274	27 M	3 A	DC ^F	
1056	1103	6547	6563	8	1366	*771	504	447: 2	6659 275	15 A	16 A	E B	
1057	1104	6548	6564	9	1367	772	505: March 7	448: March 21	6660 276	4 A	7 A	g F _D	
1058	1105	6549	6565	10	1368	773	506	449: 10	6661 277	24 M	30 M	D	
1059	1106	6550	6566	11	1369	774	507	450: Feb. 28	6662 278	12 A	19 A	B A	
1060	1107	6551	6567	12	1370	*775	508	451: 17	6663 279	1 A	4 A	DC ^F	
1061	1108	6552	6568	13	1371	776	509: March 6	452: 6th	6664 280	21 M	26 M	E B	
1062	1109	6553	6569	14	1372	777	510	453: Jan. 26	6665 281	9 A	15 A	g F _D	
1063	1110	6554	6570	15	1373	778	511	454: 15	6666 282	29 M	31 M	D	
1064	1111	6555	6571	1	1374	*779	512,455: 4	455: 13	6667 283	17 A	20 A	B A	
1065	1112	6556	6572	2	1375	780	513: March 5	456: 13	6668 284	5 A	11 A	DC ^F	
1066	1113	6557	6573	3	1376	781	514	457: 3	6669 285	25 M	27 M	E B	
1067	1114	6558	6574	4	1377	782	515	458: W Nov.	6670 286	13 A	16 A	D	
1068	1115	6559	6575	5	1378	*783	516	460: 11	6671 287	2 A	8 A	AG	
1069	1116	6560	6576	6	1379	784	517: March 4	461: Oct. 31	6672 288	22 M	23 M	B	
1070	1117	6561	6577	7	1380	785	518	462: 20	6673 289	10 A	12 A	F	
1071	1118	6562	6578	8	1381	786	519	463: 9	6674 290	30 M	4 A	D	
1072	1119	6563	6579	9	1382	*787	520	464: Sept. 29	6675 291	18 A	24 A	AG	
1073	1120	6564	6580	10	1383	788	521: March 3	465: 17	6676 292	7 A	8 A	B	
1074	1121	6565	6581	11	1384	789	522	466: 6	6677 293	27 M	31 M	F	
1075	1122	6566	6582	12	1385	790	523	467: August 27	6678 294	15 A	20 A	D	
1076	1123	6567	6583	13	1386	*791	524	468: 16	6679 295	4 A	5 A	C B	
1077	1124	6568	6584	14	1387	792	525: March 2	469: 5	6680 296	24 M	27 M	A	
1078	1125	6569	6585	15	1388	793	526	470: July 25	6681 297	12 A	16 A	G	
1079	1126	6570	6586	1	1389	794	527	471: 14	6682 298	1 A	8 A	ED ^F	
1080	1127	6571	6587	2	1390	*795	528	472: 4	6683 299	21 M	24 M		
1080	1128	6572	6588	3	1391	796	529: March 1	473: June 22	6684 300	9 A	12 A		

Christian era	Caesarean section era of Antioch	Global era Byzantine	Era of the Greeks or Seleucids	Era of Diocletian or dos martyrs	Armenian era		Ere mondiale géorgienne et Kronikoni (Cycle pascal géorgien)	Terme pascal XIV l'année M = mars A = avril	U Oc	
					Armenian era	Armenian era				
1082	1130	6574	6590	5	1393	797 530: March 1	474: 11 Juln	6685 301	29 M 4	C
1083	1131	6575	6591	6	1394	*798 531	475: 1	6686 302	17 A 24	B
1084	1132	6576	6592	7	1395	800 533: Feb. 29	476: 21 m Ha	6687 303	5 A 9	a
1085	1133	6577	6593	8	1396	801 534 : 28	477 : 10	6688 304	25 M 31	G F
1086	1134	6578	6594	9	1397	802 535 -	478: 29 ai Lir	6689 305	13 A 20	E
1087	1135	6579	6595	10	1398	*803 536	479 : 18	6690 306	2 A 5	B
1088	1136	6580	6596	11	1399	804 537	480: 8th	6691 307	22 M 28	A
1089	1137	6581	6597	12	1400	805 538: Feb. 27	481: 27 nor Ars	6692 308	10 A 16	B
1090	1138	6582	6598	13	1401	806 539	482 : 16	6693 309	30 M 1	G
1091	1139	6583	6599	14	1402	*807 540	483: 6th	6694 310	18 A 21	f
1092	1140	6584	6600	15	1403	808 541	484: 23 Feb Vr.	6695 311	7 A 13	E
1093	1141	6585	6601	1	1404	809 542: Feb. 26	485 : 12	6696 312	27 M 28	D
1094	1142	6586	6602	2	1405	810 543	486: 1	6697 313	15 A 17	C
1095	1143	6587	6603	3	1406	*811 544	487: 21j. Nv.	6698 314	4 A 9	B
1096	1144	6588	6604	4	1407	812 545	488 : 11	6699 315	24 M 25	E
1097	1145	6589	6605	5	1408	813 546: Feb. 25	489: 31 d. c.	6700 316	12 A 13	A F
1098	1146	6590	6606	6	1409	814 547	490 : 19	6701 317	1 A 5	D
1099	1147	6591	6607	7	1410	*815 548	491: 9	6702 318	21 M 28	M
1100	1148	6592	6608	8	1411	816 549	492: 28 n V.	6703 319	9 A 10	A
1101	1149	6593	6609	9	1412	817 550: Feb. 24	493: 17	6704 320	29 M 1	A G
1102	1150	6594	6610	10	1413	818 551	494: 1	6705 321	17 A 21	A f
1103	1151	6595	6611	11	1414	*819 552	495: 26 oi yo	6706 322	5 A *6 A	D
1104	1152	6596	6612	12	1415	820 553	496: 15	6707 323	25 M 29	M
1105	1153	6597	6613	13	1416	821 554: Feb. 23	497: 1	6708 324	13 A 17	A c
1106	1154	6598	6614	14	1417	822 555	498: 23 st pt.	6709 325	2 A 9	A a
1107	1155	6599	6615	15	1418	*823 556	499: 13	6710 326	22 M 25	M g
1108	1156	6600	6616	1	1419	824 557	500: 2	6711 327	10 A 14	A f
1109	1157	6601	6617	2	1420	825 558: Feb. 22	501: 11	6712 328	30 M 5	A A E D
1110	1158	6602	6618	3	1421	826 559	502: 11	6713 329	18 A 25	A B
1111	1159	6603	6619	4	1422	*827 560	503: 31 jt Iii.	6714 330	7 A 10	A c
1112	1160	6604	6620	5	1423	828 561	504: 20	6715 331	27 M 2	A
1113	1161	6605	6621	6	1424	829 562: 21 february	505: 10	6716 332	15 A 21	A
1114	1162	6606	6622	7	1425	830 563	506: 28 ji In	6717 333	4 A 6	A G F
1115	1163	6607	6623	8	1426	*831 564	507: 18	6718 334	24 M 29	M
1116	1164	6608	6624	9	1427	832 565	508: 7th	6719 335	12 A 18	A
1117	1165	6609	6625	10	1428	833 566: Feb 20	509: 27 n Hav	6720 336	1 A 2	A c
1118	1166	6610	6626	11	1429	834 567	510: 16	6721 337	21 M 25	M B A
1119	1167	6611	6627	12	1430	*835 568	511: 5	6722 338	9 A 14	A
1120	1168	6612	6628	13	1431	836 569	512: 24 a vril	6723 339	29 M 30	M g f
1121	1169	6613	6629	14	1432	837 570: Feb. 19	513: 14	6724 340	17 A 18	A E
1122	1170	6614	6630	15	1433	838 571	514: 2	6725 341	5 A 10	A D C
1123	1171	6615	6631	1	1434	*839 572	515: 22 n Ars	6726 342	25 M 26	M
1124	1172	6616	6632	2	1435	840 573	516: 12	6727 343	13 A 15	A B
1125	1173	6617	6633	3	1436	841 574: Feb 18	517: 1	6728 344	2 A 6	A G
1126	1174	6618	6634	4	1437	842 575	518: 19 fg Vr.	6729 345	22 M 29	M F E
1127	1175	6619	6635	5	1438	*843 576	519: 7th	6730 346	10 A 11	A D
1128	1176	6620	6636	6	1439	844 577	520: 27 jg 11V.	6731 347	30 M 3	A C
1129	1177	6621	6637	7	1440	845 578: Feb. 17	43,521: 17	6732 348	18 A 22	A A G
1130	1178	6622	6638	8	1441	846 579	44,522: 6	6733 349	7 A 14	A
							523: 25 dec.	6734 350	27 M 30 • M	
							45,524: 15			
							1525: 4			

In 1102, Piques was april 13 for the Armenians, Nestorians and Jacobites.

The year of the *Armenian early era* begins on the preceding August 11: thus year 1, corresponding to 1085, begins on August 11, 1084.

r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3		r.,1:3	
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Dionysian Christian era	Caesarean section of Antioch	Alexandrian era	World Era	Byzantine world era	Era of the Greeks or Seleucids	Era of Diocletian or martyrs	Armenian era		J. S. to S. J. 7	f to ⁷⁴ c. 36	Pascal term X / V moon	M = March A = April	Easter
							E. the	ca. % j'El- e -Ci					
1181	1229	6673	6689	14	1492	897	630: 4Feb.	97	577: May 17	6785	401	2 a	5 a
1182	1230	6674	6690	15	1493	898	631	98	578: 7th	6786	402	22 M	28 M
1183	1231	6675	6691	1	1494	*899	632	99	579: 26 April	6787	403	10 a	17 A i
1184	1232	6676	6692	2	1495	900	633	100	580: 14	6788	404	30 M	1 a
1185	1233	6677	6693	3	1496	901	634: 3Feb.	101	581: 4th	6789	405	18 a	21 a
1186	1234	6678	6694	4	1497	902	635	102	582: March 24	6790	406	7 a	13 a
1187	1235	6679	6695	5	1498	*903	636	103	583: 13	6791	407	27 M	29 M
1188	1236	6680	6696	6	1499	904	637	104	584: 2nd	6792	408	15 a	17 a
1189	1237	6681	6697	7	1500	905	638: 2Feb.	105	585: 19Feb.	6793	409	4 a	9 a
1190	1238	6682	6698	8	1501	906	639	106	586: 8th	6794	410	24 M	25 M
1191	1239	6683	6699	9	1502	*907	640	107	587: Jan. 29	6795	411	12 a	14 a
1192	1240	6684	6700	10	1503	908	641	108	588: 18	6796	412	1 a	5 a
1193	1241	6685	6701	11	1504	909	642: Feb. 1	109	589: 7 Dec. 27	6797	413	21 M	28 M
1194	1242	6686	6702	12	1505	910	643	110	591: 16	6798	414	9 a	10 a
1195	1243	6687	6703	13	1506	*911	644	111	592: 6th	6799	415	29 M	2 a
1196	1244	6688	6704	14	1507	912	645	112	593: Nov. 24	6800	416	17 a	21 a
1197	1245	6689	6705	15	1508	913	646: Jan. 31	113	594: 13	6801	417	5 a	*6 a
1198	1246	6690	6706	1	1509	914	647	114	595: 3 -	6802	418	25 M	29 M
1199	1247	6691	6707	2	1510	*915	648	115	596: Oct. 23	6803	419	13 a	18 a
1200	1248	6692	6708	3	1511	916	649	116	597: 12	6804	420	2 a	9 a
1201	1249	6693	6709	4	1512	917	650: Jan. 30	117	598: 1st	6805	421	22 M	25 M
1202	1250	6694	6710	5	1513	918	651	118	599: Sept. 20	6806	422	10 a	14 a
1203	1251	6695	6711	6	1514	*919	652	119	600: 10	6807	423	30 M	6 a
1204	1252	6696	6712	7	1515	920	653	120	601: August	6808	424	18 a	25 a
1205	1253	6697	6713	8	1516	921	654: Jan. 29	121	602: 18	6809	425	7 a	10 a
1206	1254	6698	6714	9	1517	922	655	122	603: 8th	6810	426	27 M	2 a
1207	1255	6699	6715	10	1518	*923	656	123	604: July 28	6811	427	15 a	22 a
1208	1256	6700	6716	11	1519	924	657	124	605: 16	6812	428	4 a	6 a
1209	1257	6701	6717	12	1520	925	658: Jan. 28	125	606: 6th	6813	429	24 M	29 M
1210	1258	6702	6718	13	1521	926	659	126	607: June 25	6814	430	12 a	18 a
1211	1259	6703	6719	14	1522	*927	660	127	608: 15	6815	431	1 a	3 a
1212	1260	6704	6720	15	1523	928	661	128	609: 3rd	6816	432	21 M	25 M
1213	1261	6705	6721	1	1524	929	662: Jan. 27	129	610: May 23	6817	433	9 a	14 a
1214	1262	6706	6722	2	1525	930	663	130	611: 13	6818	434	29 M	30 M
1215	1263	6707	6723	3	1526	*931	664	131	612: 2	6819	435	17 a	19 a
1216	1264	6708	6724	4	1527	932	665	132	613: April 20	6820	436	B a	10 a
1217	1265	6709	6725	5	1528	933	666: Jan. 26	133	614: 10	6821	437	25 M	26 M
1218	1266	6710	6726	6	1529	934	667	134	615: March 30	6822	438	13 a	15 a
1219	1267	6711	6727	7	1530	*935	668	135	616: 19	6823	439	2 a	7 a
1220	1268	6712	6728	8	1531	936	669	136	617: 8th	6824	440	22 M	29 M
1221	1269	6713	6729	9	1532	937	670: Jan. 25	137	618: Feb. 25	6825	441	10 a	11 a
1222	1270	6714	6730	10	1533	938	671	138	619: 15	6826	442	30 M	3 a
1223	1271	6715	6731	11	1534	*939	672	139	620: 4th	6827	443	18 a	23 a
1224	1272	6716	6732	12	1535	940	673	140	621: Jan. 24	6828	444	7 a	14 a
1225	1273	6717	6733	13	1536	941	674: Jan. 24	141	622: 13	6829	445	27 M	30 M
1226	1274	6718	6734	14	1537	942	675	142	623: 2 Dec. 22	6830	446	15 a	19 a
1227	1275	6719	6735	15	1538	*943	676	143	625: 12	6831	447	4 a	11 a
1228	1276	6720	6736	1	1539	944	677	144	626: Nov. 30	6832	448	24 M	26 M
1229	1277	6721	6737	2	1540	945	678: Jan. 23	145	627: 20	6833	449	12 a	15 a
1230	1278	6722	6738	3	1541	946	679	146	628: 9th	6834	450	1 a	7 a

In 1197, Easter was April 13 for Armenians, Nestorians and Jacobites.

	c _{>era} Dionysian Christian era	Caesarean section 11 of Antioch	Global era of Alexandria	Byzantine World	era of the Greeks or Seleucids	era of Diocletian 11 or martyrs	Armenian era		Leto's Era	Pascal term X/V moon M = March A = April	Easter		
			(s) bD				1. 22 A the. E	4.)	a				
1232	1280	6724	6740		*947	680: Jan. 23	680	147	629: Oct. 29	6835	451	21 M	H S
1233	1281	6725	6741		948	681	681	148	630 : 18	6836	452	9 a	
1234	1282	6726	6742		949	682: Jan. 22	682	149	631: 7th	6837	453	29 M	
1235	1283	6727	6743		950	683	683	150	632: Sept. 26	6838	454	17 a	
1236	1284	6728	6744		*951	684	684	151	633 : 16	6839	455	5 a	
1237	1285	6729	6745		952	685	685	152	634: 4 •	6840	456	25 M	
1238	1286	6730	6746		953	686: Jan. 21	686	153	635: August 24	6841	457	13 a	
1239	1287	6731	6747		954	687	687	154	636 : 14	6842	458	2 a	
1240	1288	6732	6748		*955	688	688	155	637: 3rd	6843	459	22 M	
1241	1289	6733	6749		956	689	689	156	638: July 23	6844	460	10 a	
1242	1290	6734	6750		957	690: Jan. 20	690	157	639 : 12 •	6845	461	30 M	
1243	1291	6735	6751		958	691.	691.	158	640: 1st	6846	462	18 a	
1244	1292	6736	6752		*959	692	692	159	641: June 21	6847	463	7 a	
1245	1293	6737	6753		960	693	693	160	642: 9th	6848	464	27 M	
1246	1294	6738	6754		961	694: Jan. 19	694	161	643: May 29	6849	465	15 a	
1247	1295	6739	6755		962	695	695	162	644 : 19	6850	466	4 a	
1248	1296	6740	6756		*963	696	696	163	645: 8th	6851	467	24 M	
1249	1297	6741	6757		964	697	697	164	646: April 26	6852	468	12 a	
1250	1298	6742	6758		965	698: Jan. 18	698	165	647 : 16	6853	469	1 a	
1251	1299	6743	6759		966	699	699	166	648: 5th	6854	470	21 M	
1252	1300	6744	6760		*967	700	700	167	649: March 26	6855	471	9 a	
1253	1301	6745	6761		968	701	701	168	650 : 14	6856	472	29 M	
[254]	1302	6746	6762		969	702: Jan. 17	702	169	651: 3rd	6857	473	17 a	
1255	1303	6747	6763		970	703	703	170	652: Feb. 21	6858	474	5 a	
1256	1304	6748	6764		*971	704	704	171	653 : 10	6859	475	25 M	
1257	1305	6749	6765		972	705	705	172	654: Jan. 30	6860	476	13 a	
1258	1306	6750	6766		973	706: Jan. 16	706	173	655 : 19	6861	477	2 a	
1259	1307	6751	6767		974	707	707	174	656: 8,6862 657: Dec. 29		478	22 M	
[260]	1308	6752	6768		*975	708	708	175	658 : 18	6863	479	10 a	
1261	1309	6753	6769		976	709	709	176	659: 6th	6864	480	30 M	
1262	1310	6754	6770		977	710: Jan. 15	710	177	660: Nov. 26	6865	481	18 a	
1263	1311	6755	6771		978	711	711	178	661 : 15	6866	482	7 a	
1264	1312	6756	6772		*979	712	712	179	662: 4th	6867	483	27 M	
1265	1313	6757	6773		980	713	713	180	663: Oct. 24	6868	484	15 a	
1266	1314	6758	6774		981	714: Jan. 14	714	181	664 : 13	6869	485	4 a	
1267	1315	6759	6775		982	715	715	182	665: 2nd	6870	486	24 M	
1268	1316	6760	6776		*983	716	716	183	666: Sept. 22	6871	487	12 a	
1269	1317	6761	6777		984	717	717	184	667 : 10	6872	488	1	
1270	1318	6762	6778		985	718: Jan. 13	718	185	668: August 31	6873	489	21 M	
1271	1319	6763	6779		986	719	719	186	669 : 20	6874	490	9 a	
1272	1320	6764	6780		*987	720	720	187	670: 9th	6875	491	29 M	
1273	1321	6765	6781		988	721	721	188	671: July 29	6876	492	17 a	
1274	1322	6766	6782		989	722: Jan. 12	722	189	672 : 18	6877	493	5 a	
1275	1323	6767	6783		990	723	723	190	673: 7th	6878	494	25 M	
1276	1324	6768	6784		*991	724	724	191	674: June 27	6879	495	13 a	
1277	1325	6769	6785		992	725	725	192	675 : 15	6880	496	2 a	
1278	1326	6770	6786		993	726: Jan. 11	726	193	676: 4th	6881	497	22 M	
1279	1327	6771	6787		994	727	727	194	677: May 25	6882	498	10 a	
1280	1328	6772	6788		*995	728	728	195	678 : 14	6883	499	30 M	
					996	729	729	196	679: 3rd	6884	500	18 a	

Dionysian Christian era	Caesarean section of Antioch	Alexandria World Era	Byzantine world era	oh a	Era of the Greeks or Seleucids	g ₀ ... "n Dionysian era	Armenian era		to>... 4i to ? c ₁	L ₁ ub 44	s... c ₁ 2:1 II III	n 11				
							a...)*c.smla. .. E.. c gagg									
1281	1329	6773	6789	9	1592	997	730: Jan. 10	197	80: April 22	6885	501	7	a	13	a	E
1282	1330	6774	6790	10	1593	998	731	198	81: 11	6886	502	27	M	29	M	D
1283	1331	6775	6791	11	1594	*999	732	199	82: 1	6887	503	15	a	18	a	c
1284	1332	6776	6792	12	1595	1000	733	200	83: March 20	6888	504	4	a	9	a	B A
1285	1333	6777	6793	13	1596	1001	734: Jan. 9	201	84: 9	6889	505	24	M	25	M	g
1286	1334	6778	6794	14	1597	1002	735	202	85: 27	6890	506	12	a	14	a	f
1287	1335	6779	6795	15	1598	*1003	736	203	86: 16	6891	507	1	a	6	a	E
1288	1336	6780	6796	1	1599	1004	737	204	87: 6	6892	508	21	M	28	M	D C
1289	1337	6781	6797	2	1600	1005	738: Jan. 8	205	88: Jan. 25	6893	509	9	a	10	a	B
1290	1338	6782	6798	3	1601	1006	739	206	89: 14	6894	510	29	M	2	a	a
1291	1339	6783	6799	4	1602	*1007	740	207	90: 4	6895	511	17	a	22	a	g
1292	1340	6784	6800	5	1603	1008	741	208	91: Dec. 24	6896	512	5	a	*6	a	F E
1293	1341	6785	6801	6	1604	1009	742: Jan. 7	209	92: 12	6897	513	25	M	29	M	D
1294	1342	6786	6802	7	1605	1010	743	210	93: 2	6898	514	13	a	18	a	c
1295	1343	6787	6803	8	1606	*1011	744	211	94: Nov. 21	6899	515	2	a	3	a	B
1296	1344	6788	6804	9	1607	1012	745	212	95: 10	6900	516	22	M	25	M	A G
1297	1345	6789	6805	10	1608	1013	746: Jan. 6	213	96: Oct. 30	6901	517	10	a	14	a	f
1298	1346	6790	6806	11	1609	1014	747	214	97: 19	6902	518	30	M	6	a	E
1299	1347	6791	6807	12	1610	*1015	748	215	98: 9	6903	519	18	a	19	a	D
1300	1348	6792	6808	13	1611	1016	749	216	99: Sept. 28	6904	520	7	a	10	a	C B
1301	1349	6793	6809	14	1612	1017	750: Jan. 5	217	00: 16	6905	521	27	M	2	a	a
1302	1350	6794	6810	15	1613	1018	751	218	01: 6	6906	522	15	a	22	a	g
1303	1351	6795	6811	1	1614	*1019	752	219	02: August 26	6907	523	4	a	7	a	f
1304	1352	6796	6812	2	1615	1020	753	220	03: 15	6908	524	24	M	29	M	E D
1305	1353	6797	6813	3	1616	1021	754: Jan. 4	221	04: 4	6909	525	12	a	18	a	c
1306	1354	6798	6814	4	1617	1022	755	222	05: July 24	6910	526	1	a	3	a	B
1307	1355	6799	6815	5	1618	*1023	756	223	06: 13	6911	527	21	M	26	M	a
1308	1356	6800	6816	6	1619	1024	757	224	07: 3	6912	528	9	a	14	a	G F
1309	1357	6801	6817	7	1620	1025	758: Jan. 3	225	08: June 21	6913	529	29	M	30	M	E
1310	1358	6802	6818	8	1621	1026	759	226	09: 11	6914	530	17	a	19	a	D
1311	1359	6803	6819	9	1622	*1027	760	227	10: May 31	6915	531	5	a	11	a	c
1312	1360	6804	6820	10	1623	1028	761	228	11: 20	6916	532	25	M	26	M	B A
1313	1361	6805	6821	11	1624	1029	762: Jan. 2	229	12: 9	6917	533	1	a	15	a	g
1314	1362	6806	6822	12	1625	1030	763	230	13: April 28	6918	534	2	a	7	a	f
1315	1363	6807	6823	13	1626	*1031	764	231	14: 17	6919	535	2	a	7	a	E
1316	1364	6808	6824	14	1627	1032	765	232	15: 7	6920	536	3	a	22	M	D C
1317	1365	6809	6825	15	1628	1033	766: Jan. 1	233	716: March	6921	537	4	a	11	a	B
1318	1366	6810	6826	1	1629	1034	767	234	717: 16	6922	538	5	a	30	M	a
1319	1367	6811	6827	2	1630	*1035	768	235	718: 5	6923	539	6	a	18	a	g
1320	1368	6812	6828	3	1631	1036	769	236	719: "Feb. 22	6924	540	7	a	8	a	F E
1321	1369	6813	6829	4	1632	1037	770: Dec. 31	237	720: 12	6925	541	8	a	27	M	D
1322	1370	6814	6830	5	1633	1038	771	238	721: Jan. 31	6926	542	9	a	15	a	c
1323	1371	6815	6831	6	1634	*1039	772	239	722: 20	6927	543	10	a	4	a	B
1324	1372	6816	6832	7	1635	1040	773: Dec. 30	240	723: 10	6928	544	11	a	24	M	A G
1325	1373	6817	6833	8	1636	1041	775	241	724: Dec. 30	6929	545	12	a	27	M	f
1326	1374	6818	6834	9	1637	1042	776	242	725: 18	6930	546	12	a	15	a	E
1327	1375	6819	6835	10	1638	*1043	777	243	726: 8th	6931	547	13	a	7	a	D
1328	1376	6820	6836	11	1639	1044	778: Dec. 29	244	727: Nov. 27	6932	548	14	a	21	M	C B
1329	1377	6821	6837	12	1640	1045	779	245	728: 17	6933	549	15	a	9	a	a
1330	1378	6822	6838	13	1641	1046	780	246	729: 5	6934	550	16	a	29	M	g
									730: Oct. 25			17	a	23	a	
									731: 15			18	a	8	a	

In 1292, Easter is April 13 for Armenians, Jacobites and Nestorians. •

(e) (e)	Caesarean section of Antioch	7m , =	Byzantine era		Era of the Greeks or Seleucids	mlr. of Babylonian or Persian	Armenian era		æ c a		g g; (>	g; O-e, E-.	El the	ett ^{ca}	25
							Q 6--0%to'	E							
1331	1379	6823	6839	14	1642	*1047	781	247	732: Oct. 4	6935	19	25	M	31	f
1332	1380	6824	6840	15	1643	1048	782: Dec. 28	248	733: 2 Sep.	6936	20	13	a	19	E D
1333	1381	6825	6841	1	1644	1049	783	249	734: 2	6937	21	2	a	4	
1334	1382	6826	6842	2	1645	1050	784	250	735: 1	6938	22	22	M	27	
1335	1383	6827	6843	3	1646	*1051	785	251	736: 1 août	6939	23	10	a	16	B
1336	1384	6828	6844	4	1647	1052	786: Dec. 27	252	737: 0 *	6940	24	30	M	31	G F
1337	1385	6829	6845	5	1648	1053	787	253	738: July 0	6941	25	18	a	20	
1338	1386	6830	6846	6	1649	1054	788	254	739: 0	6942	26	7	a	12	E
1339	1387	6831	6847	7	1650	*1055	789	255	740: 9	6943	27	27	M	28	c
1340	1388	6832	6848	8	1651	1056	790: Dec. 26	256	741: June 7	6944	28	15	a	16	B A
1341	1389	6833	6849	9	1652	1057	791	257	742: 7	6945	29	4	a	8	g
1342	1390	6834	6850	10	1653	1058	792	258	743: 6	6946	30	24	M	31	
1343	1391	6835	6851	11	1654	*1059	793	259	744: May 6	6947	31	12	a	13	E
1344	1392	6836	6852	12	1655	1060	794: Dec. 25	260	745: 5	6948	32	1	a	4	D C
1345	1393	6837	6853	13	1656	1061	795	261	746: 4	6949	33	21	M	27	
1346	1394	6838	6854	14	1657	1062	796'	262	747: April 4	6950	34	9	a	16	B
1347	1395	6839	6855	15	1658	*1063	797	263	748: 3	6951	35	29	M	1	g
1348	1396	6840	6856	1	1659	1064	798: Dec. 24	264	749: 1	6952	36	17	a	20	F E
1349	1397	6841	6857	2	1660	1065	799	265	750: 2	6953	37	5	a	12	D
1350	1398	6842	6858	3	1661	1066	800	266	751: March	6954	38	25	M	28	c
1351	1399	6843	6859	4	1662	*1067	801	267	752: 1	6955	39	13	a	17	B
1352	1400	6844	6860	5	1663	1068	802: Dec. 23	268	753: 8 févr.	6956	40	2	a	8	A G
1353	1401	6845	6861	6	1664	1069	803	269	754: 8	6957	41	22	M	24	D. F
1354	1402	6846	6862	7	1665	1070	804	270	755: 6	6958	42	10	a	13	
1355	1403	6847	6863	8	1666	*1071	805	271	756: Jan. 6	6959	43	30	M	5	E
1356	1404	6848	6864	9	1667	1072	806: 22 Dec.	272	757: 15	6960	44	18	a	24	C B
1357	1405	6849	6865	10	1668	1073	807	273	759: 15	6961	45	7	a	9	a
1358	1406	6850	6866	11	1669	1074	808	274	760: 4	6962	46	27	M	1	g
1359	1407	6851	6867	12	1670	*1075	809	275	761: 3	6963	47	15	a	21	f
1360	1408	6852	6868	13	1671	1076	810: 21 Dec.	276	762: Nov. 3	6964	48	4	a	5	E B
1361	1409	6853	6869	14	1672	1077	811	277	763: 1	6965	49	24	M	28	
1362	1410	6854	6870	15	1673	1078	812	278	764: Oct. 1	6966	50	12	a	17	c
1363	1411	6855	6871	1	1674	*1079	813	279	765: 1	6967	51	1	a	2	
1364	1412	6856	6872	2	1675	1080	814: Dec. 20	280	766: 0	6968	52	21	M	24	G F
1365	1413	6857	6873	3	1676	1081	815	281	767: 8 Sep	6969	53	9	a	13	
1366	1414	6858	6874	4	1677	1082	816	282	768: 8	6970	54	29	M	5	E
1367	1415	6859	6875	5	1678	*1083	817	283	769: 7	6971	55	17	a	18	
1368	1416	6860	6876	6	1679	1084	818: Dec. 19	284	770: August	6972	56	5	a	9	B A
1369	1417	6861	6877	7	1680	1085	819	285	771: 8	6973	57	25	M	1	
1370	1418	6862	6878	8	1681	1086	820	286	772: 6	6974	58	13	a	14	F
1371	1419	6863	6879	9	1682	*1087	821	287	773: 5	6975	59	2	a	6	E
1372	1420	6864	6880	10	1683	1088	822: 18 Dec.	288	774: July 6	6976	60	22	M	28	
1373	1421	6865	6881	11	1684	1089	823	289	775: 5	6977	61	10	a	1	D C
1374	1422	6866	6882	12	1685	1090	824	290	776: 3	6978	62	30	M	2	B
1375	1423	6867	6883	13	1686	*1091	825	291	777: June 3	6979	63	18	a	22	g
1376	1424	6868	6884	14	1687	1092	826: 17 Dec.	292	778: 2	6980	64	7	a	13	F E
1377	1425	6869	6885	15	1688	1093	827	293	779: 2	6981	65	27	M	29	D
1378	1426	6870	6886	1	1689	1094	828	294	780: May 1	6982	66	15	a	18	
1379	1427	6871	6887	2	1690	*1095	829	295	781: 0	6983	67	4	a	10	B
1380	1428	6872	6888	3	1691	1096	830: 16 Dec.	296	782: April 0	6984	68	24	M	25	A G

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1. 1'	Caesarean section era	Armenian era	Era of Diocletian or martry	Era of the Greeks or Seleucids	Era of Diocletian or martry	Armenian era		E. -" ... t...) c. this sc	Georgian World Era and Kronikoni (Paschal Cycle	7.3' .. = %E c. ... Id II	Easter	
						Armenian era	E					
381		6873	6889	4	1692	1097	831	297	783: March 28	6985	69	12 a
382	1430	6874	6890	5	1693	1098	832	298	784 : 17	6986	70	1 a
383	1431	6875	6891	6	1694	*1099	833	299	785: 6th	6987	71	21 M
384	1432	6876	6892	7	1695	1100	834: Dec. 15	300	786: Feb. 24	6988	72	9 a
385	1433	6877	6893	8	1696	1101	835	301	787 : 12	6989	73	29
386	1434	6878	6894	9	1697	1'02	8 ³ 6	302	788: 2	6990	74	17
387	1435	6879	6895	10	1698	*1'03	8 ³ 7	303	789: Jan. 22	6991	75	5 a
388	1436	6880	6896	11	1699	1'04	83 ⁸ : Dec. 14	304	790: 11	6992	76	25 M
389	1437	6881	6897	12	1700	1105	839	305	791: Dec. 31	6993	77	13 a
390	1438	6882	6898	13	1701	1106	8 ⁴ 0	306	792: 20	6994	78	2 a
391	1439	6883	6899	14	1702	*1107	8 ⁴ 1	307	793: 9	6995	79	22 M
392	1440	6884	6900	15	1703	1108	842: 13 Dec.	308	794: Nov. 29	6996	80	10 a
393	1441	6885	6901	1	1704	1109	843	309	795: 17	6997	81	30 M
394	1442	6886	6902	2	1705	1110	844	310	796: 6	6998	82	18 a
395	1443	6887	6903	3	1706	*1111	845	311	797: Oct. 27	6999	83	7 a
396	1444	6888	6904	4	1707	1112	846: Dec. 12	312	798: 16	700 ⁰	84	27 M
397	1445	6889	6905	5	1708	1113	847	313	799: 5	700 ¹	85	15 a
398	1446	6890	6906	6	1709	1114	848	314	800: Sept. 24	7002	86	4 a
399	1447	6891	6907	7	1710	*1115	8 ⁴ 9	315	801: 13	700 ³	87	24 M
100	1448	6892	6908	8	1711	1116	850: 11 Dec.	316	802: 3	700 ⁴	88	12
401	1449	6893	6909	9	1712	1117	851	317	803: August 22	7005	89	1 a
402	1450	6894	6910	10	1713	1118	852	318	804 : 11	7006	90	21 M
403	1451	6895	6911	11	1714	*1119	853	319	805: 1	7007	91	9 a
404	1452	6896	6912	12	1715	1120	854: Dec. 10	320	806:21 July	7008	92	29 M
405	1453	6897	6913	13	1716	1121	855	321	807: 10	7009	93	17 a
406	1454	6898	6914	14	1717	1122	856	322	808: June 29	7010	94	5 a
407	1455	6899	6915	15	1718	*1123	857	323	809: 18	7011	95	25 M
408	1456	6900	6916	1	1719	1124	858: Dec. 9	324	810: 8	7012	96	13 a
409	1457	6901	6917	2	1720	1125	859	325	811: May 27	7013	97	2 a
410	1458	6902	6918	3	1721	1126	860	326	812: 16	7014	98	22 M
Ln	1459	6903	6919	4	1722	*1127	861	327	813: 3: 6	7015	99	10 a
112	1460	6904	6920	5	1723	1128	862: Dec. 8	328	814: April 25	7016	100	30 M
413	1461	6905	6921	6	1724	1129	863	329	815: 13	7017	101	18 a
414	1462	6906	6922	7	1725	1130	864	330	816: 3	7018	102	7 a
415	1463	6907	6923	8	1726	*1131	865	331	817: March 23	7019	103	27 M
416	1464	6908	6924	9	1727	1132	866: Dec. 7	332	818: 13	7020	104	15 a
117	1465	6909	6925	10	1728	1133	867	333	819: 1	7021	105	4 a
418	1466	6910	6926	11	1729	1134	868	334	820: Feb. 18	7022	106	24 M
419	1467	6911	6927	12	1730	*1135	869	335	821: 8	7023	107	12 A
420	1468	6912	6928	13	1731	1136	870: Dec. 6	336	822: Jan 28	7024	108	1 A
421	1469	6913	6929	14	1732	1137	871	337	823: 7	7025	109	21 M
422	1470.	6914	6930	15	1733	1138	872	338	4:6 825: Dec. 26.	7026	110	9 a
423	1471	6915	6931	1	1734	*1139	873	339	826: 15	7027	111	29 M
424	1472	6916	6932	2	1735	1140	874: Dec. 5	340	827: 5th	7028	112	17 a
425	1473	6917	6933	3	1736	1141	875	341	828: Nov. 23	7029	113	5 a
426	1474	6918	6934	4	1737	1142	876	342	829 : 13	7030	114	25 M
427	1475	6919	6935	5	1738	*1143	877	343	830: 2nd	7031	115	13 a
428	1476	6920	6936	6	1739	1144	878: Dec. 4	344	831: Oct. 22	7032	116	2 a
429	1477	6921	6937	7	1740	1145	879	345	832 : 11	7033	117	22 M
430	1478	6922	6938	8	1741	1146	880	346	833: Sept. 30	7034	118	10 a
									834 : 19			

ther e	Q g	4 ² 1 ¹ c			r.5g ⁶ c d	Armenian era		Ère de l'Hébreu (avec le commencement de l'année)	Ère mondiale géorgienne et Kronkoni (cycle pascal géorgien)	Terme pascal XIV ^e linze M = mars A = avril	g	ly ⁷³ y ₁	
						.	>						
					47 ¹ U _g		d a a						
1431	1479	6923	6939	9	1742*1147	881		347	835: Sept. 9	7035 119	3 0	1 A	
1432	1480	6924	6940	10	1743 1148	882: Dec. 3		348	836 August 28	7036 120	1 8	20 A	FE
1433	1481	6925	6941	11	1744 1149	883		349	837: 18	7037 121	7	12 A	D
1434	1482	6926	6942	12	1745 1150	884		350	838: 7	7038 122	2 7	28 M	c
1435	1483	6927	6943	13	1746*1151	885		351	839: July 27	7039 123	15	17 A	B
1436	1484	6928	6944	14	1747 1152	886: Dec. 2		352	840: 16 •	7040 124	4	8 A	
1437	1485	6929	6945	15	1748 1153	887		353	841: 5	7041 125	2 4	31 M	FAG
1438	1486	6930	6946	1	1749 1154	888		354	842 June 24	7042 126	12	13 A	
1439	1487	6931	6947	2	1750*1155	889		355	843: 14	7043 127	1	5 A	D
1440	1488	6932	6948	3	1751 1156	890: Dec. 1		356	844: 2	7044 128	21	27 M	CB
1441	1489	6933	6949	4	1752 1157	891		357	May 22 (845)	7045 129	9	16 A	A
1442	1490	6934	6950	5	1753 1158	892		358	846: 12	7046 130	29	1 A	G
1443	1491	6935	6951	6	1754*1159	893		359	847: 1	7047 131	17	21 A	f
1444	1492	6936	6952	7	1755 1160	894: Nov. 30		360	848 April 20	7048 132	5	12 A	BD
1445	1493	6937	6953	8	1756 1161	895		361	849: 9	7049 133	25	28 M	
1446	1494	6938	6954	9	1757 1162	896		362	March 29	7050 134	13	17 A	c
1447	1495	6939	6955	10	1758*1163	897		363	(850)	7051 135	2	9 A	
1448	1496	6940	6956	11	1759 1164	898: Nov. 29		364	851: 19	7052 136	2 2	24 M	GF
1449	1497	6941	6957	12	1760 1165	899		365	852: 7	7053 137	10	13 A	
1.150	1498	6942	6958	13	1761 1166	900		366	853: Feb. 24	7054 138	3 0	5 A	E
									854: 14				
1451	1499	6943	6959	14	1762*1167	901		367	855: 3	7055 139	18	25 A	c
	1500	6944	6960	15	1763 1168	902 • Nov. 28		368	856: Jan. 23	7056 140	7	9 A	BA
115:1	1501	6945	6961	1	1764 1169	903		369	857: 12	7057 141	2 7	1 A	g
1-154	1502	6946	6962	2	1765 1170	904		370	858: 1	7058 142	15	21 A	f
									859: Dec. 22				
1455	1503	6947	6963	3	1766*1171	905		371	860: 11	7059 143	4	6 A	E
1456	1504	6948	6964	4	1767 1172	906: Nov. 27		372	861: Nov. 29	7060 144	2 4	28 M	DC
1457	1505	6949	6965	5	1768 1173	907		373	862: 19	7061 145	12	17 A	
1458	1506	6950	6966	6	1769 1174	908		374	863: 8	7062 146	1	2 A	B
1459	1507	6951	6967	7	1770*1175	909		375	864: Oct. 28	7063 147	21	25 M	g
1460	1508	6952	6968	8	1771 1176	910: Nov. 26		376	865: 17	7064 148	9	13 A	FE
1461	1509	6953	6969	9	1772 1177	911		377	866: 6	7065 149	29	5 A	D
1462	1510	6954	6970	10	1773 1178	912		378	867: Sept. 26	7066 150	17	18 A	
1163	1511	6955	6971	11	1774*1179	913		379	868: 15	7067 151	5	10 A	B
I(11)	1512	6956	6972	12	1775 1180	914: Nov. 25		380	869: 3	7068 152	25	1 A	AG
1165	1513	6957	6973	13	1776 1181	915		381	August 24	7069 153	13	14 A	
									(870)				
1466	1514	6958	6974	14	1777 1182	916		382	871: 13	7070 154	2	6 A	f
1467	1515	6959	6975	15	1778*1183	917		383	872: 2	7071 155	22	29 M	
1168	1516	6960	6976	1	1779 1184	918: Nov. 24		384	873 July 22	7072 156	10	17 A	CB
11 r.9	1517	6961	6977	2	1780 1185	919		385	874: 11	7073 157	30	2 A	a
11711	1518	6962	6978	3	1781 1186	920		386	875 June 30	7074 158	18	22 A	g
1471	1519	6963	6979	4	1782*1187	921		387	876: 20	7075 159	7	14 A	f
1172	1520	6964	6980	5	1783 1188	922: Nov. 23		388	877: 8	7076 160	27	29 M	ED
1173	1521	6965	6981	6	1784 1189	923		389	878: May 29	7077 161	14	18 A	
117-1	1522	6966	6982	7	1785 1190	924		390	879: 18	7078 162	14	10 A	
1175	1523	6967	6983	8	1786*1191	925		391	880: 7	7079 163	24	26 M	B
1476	1524	6968	6984	9	1787 1192	926: Nov. 22		392	881: April 26	7080 164	1 2	14 A	GF
1177	1525	6969	6985	10	1788 1193	927		393	882: 15	7081 165	1	6 A	
1178	1526	6970	6986	11	1789 1194	928		394	883: 4	7082 166	2 1	22 M	E
1179	1527	6971	6987	12	1790*1195	929		395	884: March 25	7083 167	9	11 A	
1480	1528	6972	6988	13	1791 1196	930: Nov. 21		396	885: 13	7084 168	29	2 A	BA

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							4-E-g eeet 0-1	V								
1481	1529	6973	6989	14	1792	1197	931	397	886: March 2	7085	169	17	a	22	a	g f
1482	1530	6974	6990	15	1793	1198	932	398	887: Feb. 20	7086	170	5	a	7	a	f
1483	1531	6975	6991	1	1794	*1199	933	399	888: 9	7087	171	25	M	30	M	E
1484	1532	6976	6992	2	1795	1200	934: Nov. 20	400	889: Jan. 30	7088	172	13	a	18	a	D C
1485	1533	6977	6993	3	1796	1201	935	401	890: 18	7089	173	2	a	3	a	
1486	1534	6978	6994	4	1797	1202	936	402,891	892: Dec. 28	7090	174	22	M	26	M	B
1487	1535	6979	6995	5	1798	*1203	937	403	893: 17	7091	175	10	a	15	a	g
1488	1536	6980	6996	6	1799	1204	938: Nov. 19	404	894: 5th	7092	176	30	M	6	a	F E
1489	1537	6981	6997	7	1800	1205	939	405	895: Nov. 25	7093	177	18	a	19	a	D
1490	1538	6982	6998	8	1801	1206	940	406	896: 14	7094	178	7	a	11	a	
1491	1539	6983	6999	9	1802	*1207	941	407	897: 4th	7095	179	27	M	3	a	B
1492	1540	6984	7000	10	1803	1208	942: Nov. 18	408	898: Oct. 23	7096	180	15	a	22	a	A G
1493	1541	6985	7001	11	1804	1209	943	409	899: 12	7097	181	4	a	7	a	
1494	1542	6986	7002	12	1805	1210	944	410	900: 2	7098	182	24	M	30	M	E
1495	1543	6987	7003	13	1806	*1211	945	411	901: Sept. 21	7099	183	12	a	19	a	
1496	1544	6988	7004	14	1807	1212	946: Nov. 17	412	902: 9	7100	184	1	a	3	a	C B
1497	1545	6989	7005	15	1808	1213	947	413	903: August	7101	185	21	M	26	M	a
1498	1546	6990	7006	1	1809	1214	948	414	904: 19	7102	186	9	a	15	a	g f
1499	1547	6991	7007	2	1810	*1215	949	415	905: 8th	7103	187	29	M	31	M	
1500	1548	6992	7008	3	1811	1216	950: Nov. 16	416	906: July 28	7104	188	17	a	19	a	E D
1501	1549	6993	7009	4	1812	1217	951	417	907: 17	7105	189	5	a	11	a	you.
1502	1550	6994	7010	5	1813	1218	952	418	908: 7	7106	190	25	M	27	M	13
1503	1551	6995	7011	6	1814	*1219	953	419	909: June 26	7107	191	13	a	16	a	a
1504	1552	6996	7012	7	1815	1220	954: Nov. 15	420	910: 14	7108	192	2	a	7	a	f
1505	1553	6997	7013	8	1816	1221	955	421	911: 4	7109	193	22	M	23	M	
1506	1554	6998	7014	9	1817	1222	956	422	912: May 24	7110	194	10	a		a	D
1507	1555	6999	7015	10	1818	*1223	957	423	913: 13	7111	195	30	M	4	a	
1508	1556	7000	7016	11	1819	1224	958: Nov. 14	424	914: 2	7112	196	18	A	23	A	B
1509	1557	7001	7017	12	1820	1225	959	425	915: April 21	7113	197	7	A	8	A	G
1510	1558	7002	7018	13	1821	1226	960	426	916: 10	7114	198	27	M	31	M	
1511	1559	7003	7019	14	1822	*1227	961	427	917: March 31	7115	199	15	a	20	a	E
1512	1560	7004	7020	15	1823	1228	962: Nov. 13	428	918: 19	7116	200	4	a	11	a	D C
1513	1561	7005	7021	1	1824	1229	963	429	919: 9	7117	201	24	M	27	M	B
1514	1562	7006	7022	2	1825	1230	964	430	920: 26	7118	202	12	a	16	a	
1515	1563	7007	7023	3	1826	*1231	965	431	921: 15	7119	203	1	a	8	a	g
1516	1564	7008	7024	4	1827	1232	966: Nov. 12	432	922: 5	7120	204	21	M	23	M	F E
1517	1565	7009	7025	5	1828	1233	967	433	923: Jan. 24	7121	205	9	a	12	a	D
1518	1566	7010	7026	6	1829	1234	968	434	924: 13	7122	206	29	M	4	a	
1519	1567	7011	7027	7	1830	*1235	969	435	925: 3	7123	207	17	a	24	a	B
1520	1568	7012	7028	8	1831	1236	970: Nov. 11	436	926: Dec.	7124	208	5	a	8	a	
1521	1569	7013	7029	9	1832	1237	971	437	928: 1	7125	209	25	M	31	M	
1522	1570	7014	7030	10	1833	1238	972	438	929: Nov. 20	7126	210	13	a	20	a	
1523	1571	7015	7031	11	1834	*1239	973	439	930: 10	7127	211	2	a	5	a	D
1524	1572	7016	7032	12	1835	1240	974: Nov. 10	440	931: Oct. 29	7128	212	22	M	27	M	C B
1525	1573	7017	7033	13	1836	1241	975	441	932: 18	7129	213	10	a	16	a	a

TABLE OF
PASCAL, SOLAR AND LUNAR CYCLES
IN THE CHRISTIAN-DIONYSIAN ERAS
BYZANTINE AND ALEXANDRIAN

PASCHAL CYCLE, SOLAR CYCLE AND LUNAR CYCLE IN THE BYZANTINE AND ALEXANDRIAN

Note. - The Byzantine lunar cycle shown here is that of the computist George. For other forms, see the special table, pp. 54-55.

Dionysian Christian era					Byzantine					era:re Alexandrine					Easter dates with the age of the moon	In the lunar cycle
Year 6>	CD	n	oh 104 ca>	C.)	Cycle solaire C ₁	Cycle lunaire C ₂	Ans de la creation C ₃	Cycle paschal C ₄	Cycle solaire C ₅	Cycle lunaire C ₆	Ans de la creation C ₇	Cycle paschal C ₈	Cycle solaire C ₉	Cycle lunaire C ₁₀		
345	346	18	4	3	5853	1	1	1	11	5837	517	13	4	3	7 A 19	3
346	347	19	5	14	5854	2	2	2	22	5838	518	14	5	14	23 M 15	4
347	348	20	6	25	5855	3	3	3	3	5839	519	15	6	25	12 A 16	5
348	349	21	7	6	5856	4	4	4	14	5840	520	16	7	6	3 A 18	6
349	350	22	8	17	5857	5	5	5	25	5841	521	17	8	17	23 A	7
350	351	23	9	28	5858	6	6	6	6	5842	522	18	9	28	8 A 15	8
	351,352	21	10	9	5859	7	7	7	17	5843	523	19	10	9	31 M 18	9
	352,353	25	11	20	5860	8	8	8	28	5844	524	20	11	20	19 A 18	10
	353,354	26	12	1	5861	9	9	9	9	5845	525	21	12	1	11 A 21	11
	354,355	27	13	12	5862	10	10	10	20	5846	526	22	13	12	27 M 17	12
	355,356	28	14	23	5863	11	11	11	1	5847	527	23	14	23	16 A 18	13
	356,357	1	15	4	5864	12	12	12	12	5848	528	24	15	4	7 A 20	14
357	358	2	16	15	5865	13	13	13	23	5849	529	25	16	15	23 M 16	15
358	359	3	17	26	5866	14	14	14	4	5850	530	26	17	26	12 A 17	16
359	360	4	18		5867	15	15	15	15	5851	531	27	18	7	4 A 20	17
360	361	5	19	18	5868	16	16	16	26	5852	532	28	19	18	23 A 20	18
361	362	6	1	0	5869	17	17	17	8	5853	533	1	1	30	8 A 17	19
362	363	7	2	11	5870	18	18	18	19	5854	534	2	2	11	31 M 20	20
363	364	8	3	22	5871	19	19	19	30	5855	535	3	3	22	20 A 21	21
364	365	9	4	3	5872	20	20	20	11	5856	536	4	4	3	4 A 16	22
365	366	10		14	5873	21	21	21	22	5857	537	5	5	14	27 M 19	23
366	367	11	6	25	5874	22	22	22	3	5858	538	6	6	25	16 A 20	24
367	368	12	7	6	5875	23	23	23	14	5859	539	7	7	6	1 A 16	25
368	369	13	8	17	5876	24	24	24	25	5860	540	8	8	17	20 A 16	26
369	370	14	9	28	5877	25	25	25	6	5861	541	9	9	28	12 A 19	27
370	371	15	10	9	5878	26	26	26	17	5862	542	10	10	9	28 M 15	28
371	372	16	11	20	5879	27	27	27	28	5863	543	11	11	20	17 A 16	29
372	373	17	12	1	5880	28	28	28	9	5864	544	12	12	1	8 A 18	30
373	374	18	13	12	5881	29	29	29	20	5865	545	13	13	12	31 M	31
374	375	19	14	23	5882	30	30	30	11	5866	546	14	14	23	13 A 15	32

Dionysian Christian era				Byzantine era				Alexandrian era				Easter dates with the age of the moon	O 4.				
"a	"ic	E'	. E	"	g.	cc	Tn	"	"	l ¹ ?	f. l			"			
				"	t					O	V						
375	376	20	13	4	5883	31	3	12	12	5867	15	15	15	4	5 A 18	3	
376	377	21	16	15	5884	32	4	13	23	5868	16	16	16	15	27 M 20	4	
377	378	22	17	26	5885	33	5	14	4	5869	17	17	17	26	16 A 21	5	
378	379	23	18	7	5886	34	6	15	15	5870	18	18	18	7	1 A 17	6	
379	380	24	19	18	5887	35	7	16	26	5871	19	19	19	18	21 A 18	7	
	380,381		25		5888	36	8	17	8	5872	20	20	1	30	12 A 21	8	
	381,382	26	2	11	5889	37	9	18	19	5873	21	21	2	11	28 M 17	9	
	382,383	27	3	22	5890	38	10	19	30	5874	22	22	3	22	17 A 18	10	
	383,384	28	4	3	5891	39	11	1	11	5875	23	23	4	3	9 A 21	11	
	384,385		5	14	5892	40	12	2	22	5876	24	24	5	14	24 M 16	12	
	385,386	2	6	25	5893	41	13	3	3	5877	25	25	6	25	13 A	17	13
	386,387	3	7	6	5894	42	14	4	14	5878	26	26	7	6	5 A 20	1.1	
	387,388	4	8	17	5895	43	15	5	25	5879	27	27	8	17	25 A 21	15	
388	389	5	9	28	5896	44	16	6	6	5880	28	28	9	28	9 A 16	1	
389	390	6	10	9	5897	45	17	7	17	5881	29		10	9	1 A 19	2	
390	391	7	11	20	5898	46	18	8	28	5882	30	2	11	20	21 TO 20	3	
391	392	8	12	1	5899	47	19	9	9	5883	31	3	12		6 A 16	4	
392	393	9	13	12	5900	48	20	10	20	5884	32	4	13	12	28 M 18	5	
393	394	10	14	23	5901	49		1	1	5885	33	5	14	23	17 A	19	6
	394,395	11	15	4	5902	50	12	12	12	5886	34	6	15	4	2 A 15	7	
	395,396	12	16	15	5903	51	23	13	23	5887	35	7	16	15	25 M 18	8	
	396,397	13	17	26	5904	52	24	14	4	5888	36	8	17	26	13 A	18	9
	397,398	14	18	7	5905	53	25	15	15	5889	37	9	18	7	5 A 21	10	
	398,399	15	19	18	5906	54	26	16	26	5890	38	10	19	18	18 A	15	11
399	-100	16	1		5907	55	27	17	8	5891	39	11	1	30	10 A	19	12
	400,401	17	2	11	5908	56	28	18	19	5892	40	12	2	11	1 A 21	13	
	402	18	3	22	5909	57	19	19	30	5893	41	13	3	22	14 A	15	14
	402-103	19	4		5910	58	2	2	11	5894	42	14	4	3	6 A 18	15	
	403-104	20	5	14	5911	59	3	2	22	5895	43	15	5	14	29 M 21	1	
	404,405	21	6	25	5912	60	4	3	3	5896	44	16	6	25	17 A 21	2	
	405,406	22	7	6	5913	61	5	4	14	5897	45	17	7	6	2 A 17	3	
406	407	23	8	17	5914	62	6	5	25	5898	46	18	8	17	22 A 18	4	
407	408	24	9	28	5915	63	7	6	6	5899	47	19	9	28	14 A 21	5	
408	409	25	10	9	5916	64	8	7	17	5900	48	20	10	9	29 M 16	6	
409	410	26	11	20	5917	65	9	8	28	5901	49	21	11	20	18 A	17	7
410	411	27	12		5918	66	10	9	9	5902	50	22	12		10 A 20	8	
411	412	28	13	12	5919	67	11	10	20	5903	51	23	13	12	26 M 16	9	
412	413	14	23	5920	68	12	11	1	1	5904	52	24	14	23	14 A 16	10	
113	414	15	4	4	5921	69	13	12	12	5905	53	25	15	4	6 A 19	11	
414	415	16	15	5922	70	14	13	23	23	5906	54	26	16	15	22 M 15	12	
415	416	4	17	26	5923	71	15	14	4	5907	55	27	17	26	11 A 16	13	
416	417	5	18	7	5924	72	16	15	15	5908	56	28	18	7	2 A 18	14	
417	418	6	19	18	5925	73	17	16	26	5909	57	19	18	18	22 A 19	15	
418	419				5926	74	18	17	8	5910	58	2	1	30	7 A 16	1	
419	420	8	2	11	5927	75	19	18	19	5911	59	3	2	11	30 M 19	2	
420	421	9	3	22	5928	76	20	19	30	5912	60	4	3	22	18 A	3	
421	422	10	4	3	5929	77	21	1	11	5913	61	5	4	3		4	
422	423	11	5	14	5930	78	22	2	22	5914	62	6	5	14	9	1	
423	424	12	6	25	5931	79	23	3	3	5915	63	7	6	25	3 A 15	5	
424	425	13	7	6	5932	80	24	4	14	5916	64	8		6	26 M 18	7	

Dionysian Christian era					Byzantine era					Alexandrian era					Easter dates with the age of the moon	e Ê
œ g			î g>	n g	n		÷ CD	C3	n	gd 0.	5 C.)	maires o r1				
425	426	14	8	17	5933	81	25	5	25	5917	65	9	17	19 A	15	8
426	427	15	9	28	5934	82	26	6	6	5918	66	10	9	11 A	18	9
427	428	16	10	9	5935	83	27	7	17	5919	67	11	10	3 A	21	10
428	429	17	11	20	5936	84	28	8	28	5920	68	12	11	22 A	21	11
429	430	18	12	1	5937	85	1	9	9	5921	69	13	12	7 A	17	12
430,431		19	13	12	5938	86	2	10	20	5922	70	14	13	30 M	20	13
431,432		20	14	23	5939	87	3	11		5923	71	15	14	19 A	21	14
432	433	21	15	4	5940	88	4	12	12	5924	72	16	15	3 A	16	15
433	434	22	16	15	5941	89	5	13	23	5925	73	17	16	26 M	19	1
434	435	23	17	26	5942	90	6	14	4	5926	74	18	17	15 A	20	2
435	436	24	18	7	5943	91	7	15	15	5927	75	19	18	31 M	16	3
436	437	25	19	18	5944	92	8	16	26	5928	76	20	19	19 A	16	4
437	438	26	1	9	5945	93	9	17	8	5929	77	21	1	11 A	20	5
438	439	27	2	11	5946	94	10	18	19	5930	78	22	2	27 M	16	6
439,140		28	3	22	5947	95	11	19	30	5931	79	23	3	16 A	17	7
440,141			4	3	5948	96	12	1	11	5932	80	24	4	7 A	19	8
441,142		2	5	14	5949	97	13	2	22	5933	81	25	5	23 M	15	9
442,143		3	6	25	5950	98	14	3	3	5934	82	26	6	12 A	16	10
443	444	4	7	6	5951	99	15	4	14	5935	83	27	7	4 A	19	11
444	445	5	8	17	5952	100	16	5	25	5936	84	28	8	23 A	19	12
445,146		6	9	28	5953	101	17	6		5937	85		9	8 A	15	13
446	447	7	10	9	5954	102	18	7	17628	5938	86	2	10	31 M	18	14
447	448	8	11	20	5955	103	19	8		5939	87	3	11	20 A	19	15
448	449	9	12	1	5956	104	20	9	9	5940	88	4	12	11 A	21	1
449	450	10	13	12	5957	105	21	10	20	5941	89	5	13	27 M	17	2
450	451	11	14	23	5958	106	22	11	1	5942	90	6	14	16 A	18	3
451	452	12	15	4	5959	107	23	12	12	5943	91	7	15	8 A	21	4
452	453	13	16	15	5960	108	24	13	23	5944	92	8	16	23 M	16	5
453	454	14	17	26	5961	109	25	14	4	5945	93	9	17	12 A		6
454	455	15	18	7	5962	110	26	15	15	5946	94	10	18		1	7
455	456	16	19	18	5963	111	27	16	26	5947	95	11	19	24 A	21	8
456	457	17	1	0	5964	112	28	17	8	5948	96	12	1	8 A	17	9
457	458	18	2	11	5965	113	1	18	19	5949	97	13	2	31 M	20	10
458	459	19	3	22	5966	114	2	19	30	5950	98	14	3	20 A	21	11
459	460	20	4	3	5967	115	3		11	5951	99	15	4	5 A	17	12
460	461	21	5	14	5968	116	4	2	22	5952	100	16	5	27 M	19	13
461	462	22	6	25	5969	117	5	3	3	5953	101	17	6	16 A	20	14
462	463	23	7	6	5970	118	6	4	14	5954	102	18	7	1 A	16	15
463	464	24	8	17	5971	119	7	5	25	5955	103	19	8	21 A	17	1
464	465	25	9	28	5972	120	8	6	6	5956	104	20	9	12 A	19	2
465	466	26	10	9	5973	121	9	7	17	5957	105	21	10	28 M	15	3
466	467	27	11	20	5974	122	10	8	28	5958	106	22	11	17 A	16	4
467	468	28	12		5975	123	11	9	9	5959	107	23	12	9 A	19	5
468	469		13	12	5976	124	12	10	20	5960	108	24	13	31 M	21	6
469	470	2	14	23	5977	125	13	11	1	5961	109	25	14	13 A	15	7
470	471	3	15	4	5978	126	14	12	12	5962	110	26	15	5 A	18	8
471	472	4	16	15	5979	127	15	13	23	5963	111	27	16	28 M	21	9
472	473	5	17	26	5980	128	16	14	4	5964	112	28	17	16 A	21	10
473	474	6	18	7	5981	129	17	15	15	5965	113		18	1 A	17	11
474	475	7	19	18	5982	130	18	16	26	5966	114		19	21 A	18	12

Dionysian/Christian era				Byzantine era				Alexandrian era				Easter dates with the age of the moon	.5.). a	
9		a.> D	Lunar epochs	a.2	a.75)) Cycle lunaire	Cycle lunaire	Lunar epochs	112th cg.	It crS'	eg 100				
475	17G	8	1	5983	131	19	17	5967	15	3	30	6 A 15	13	
476	477	9	2	5984	132	20	18	5968	16	4	2	28 M 17	14	
477	478	10	3	5985	133	21	19	5969	17	5	3	17 A	15	
478	479	11	4	5986	134	22	1	5970	18	6	4	9 A 21	1	
479	480	12	5	5987	135	23	2	5971	19	7	5	25 M 17	2	
480	181	13	6	5988	136	24	3	5972	20	8	6	13 A	3	
481	182	14	7	5989	137	25	4	5973	1	9	7	5 A 20	4	
482	483	15	8	5990	138	26	5	5974	22	III	8	25 A 21	5	
483	184	16	9	5991	139	27	6	5975	23	II	9	10 A	6	
484	485	17	10	5992	140	28	7	5976	1	12	10	1 A 19	7	
485	486	18	It	5993	141	1	8	5977	25	13	11	21 TO 20	8	
486	187	19	12	5994	142	2	9	5978	26	14	12	6 A 16	9	
487	188	20	13	5995	143	3	10	5979	15	15	13	29 M 19	10	
488	189	21	11	5996	144	4	11	5980	28	16	14	17 A	11	
489	190	22	I	5997	145	5	12	5981	17	15	15	2 A	12	
490	191	23	16	5998	146	6	13	5982	30	18	16	25 M 18	13	
491	192	24	17	5999	147	7	14	5983	31	19	17	14 A	14	
492	193	25	18	6000	148	8	15	5984	32	20	18	5 A 21	15	
493	194	26	19	6001	149	9	16	5985	33	21	19	18 A	1	
494	195	27	0	6002	150	10	17	5986	34	22	30	10 A	2	
495	196	28	2	6003	151	11	18	5987	135	23	2	26 M 15	3	
496	497	1	3	6004	152	12	19	5988	136	24	22	14 A	4	
497	498	2	4	6005	153	13	1	5989	137	25	3	6 A 18	5	
498	499	3	5	6006	154	14	2	5990	138	26	5	29 M 21	6	
499	500	4	6	6007	155	15	3	5991	139	27	6	11 A 15	7	
500	501	5	7	6008	156	16	4	5992	140	28	7	2 A 17	8	
501	502	6	8	6009	157	17	5	5993	141	1	8	22 A 18	9	
502	503	7	9	6010	158	18	6	5994	142	2	9	14 A 21	10	
503	504	8	10	6011	159	19	7	5995	143	3	10	30 M 17	11	
504	505	9	11	6012	160	20	8	5996	144	4	11	18 A	12	
505	506	10	1	6013	161	21	9	5997	145	5	12	10	20	13
506	507	11	13	6014	162	22	10	5998	146	6	13	26	16	14
507	508	12	1	6015	163	23	11	5999	147	7	14	15	17	15
508	509	13	15	6016	164	24	12	6000	148	8	15	6	19	1
509	510	14	16	6017	165	25	13	6001	149	9	16	22	15	2
510	511	15	17	6018	166	26	14	6002	150	10	17	11	16	3
511	512	16	18	6019	167	27	15	6003	151	11	18	7	19	4
512	513	17	19	6020	168	28	16	6(104	152	12	19	18	22	5
513	514	18	1	6021	169	1	17	6005	153	13	30	7	16	6
514	515	19	2	6022	170	2	18	6006	154	14	2	11	30	7
515	516	20	3	6023	171	3	19	6007	155	15	3	22	19 A 20	8
516	517	21	4	6024	172	4	1	6008	156	16	4	3	3 A 15	9
517	518	22	5	6025	173	5	2	6009	157	17	5	14	26 M 18	10
518	519	23	6	6026	174	6	3	6010	158	18	6	25	15 A 19	11
519	520	24	7	6027	175	7	4	6011	159	19	7	6	31 M 15	12
520	521	25	8	6028	176	8	5	6012	160	20	8	17	19 A	13
521	522	26	9	6029	177	9	6	6013	161	21	9	28	11 A 18	14
522	523	27	10	6030	178	10	7	6014	162	22	10	9	3 A 21	15
523	524	28	11	6031	179	11	8	6015	163	23	11	20	16 A	1
524	525	1	12	6032	180	12	9	6016	164	24	12	1	7 A 17	2

Dionysian Christian era					Byzantine era					Alexandrian era					Easter dates with the age of the	Indictions	
2 3 E i de	a Q	E C	21 a 5 al	Lunar epacts		Q	D.	* ra	• ra		Q	Lunar cycle	• ra	maires			
525	526	2	1	12	6033	181	13	10	20	6017	165	25	1	12	30 M 20	3	
526	527	3	3	23	6034	182	14	11		6018	166	26	3	23	19 A 21	4	
527	528	4	1	4	6035	183	15	12	12	6019	167	27	1	4	4 A 17	5	
528	529	5	4	15	6036	184	16	13	23	6020	168	28	4	15	26 M 19	6	
529	530	6	1	26	6037	185	17	14	4	6021	169	1	1	26	15 A 20	7	
530	531	7	1	•	6038	186	18	15	15	6022	170	2	1	7	31 M 16	8	
531	532	8	1	18	6039	187	19	16	26	6023	171	3	1	1	20 A 17	9	
532	1	9	1	0	6040	188	20	17	8	6024	172	4	1	8	11 A 20	10	
533	2	1	2	11	6041	189	21	18	19	6025	173	5	2	3	27 M 16	11	
534	3	0	3	22	6042	190	22	19	30	6026	174	6	3	0	16 A 17	12	
535	4	1	4	3	6043	191	23	1	11	6027	175	7	4		8 A 20	13	
536	5	2	5	14	6044	192	24	2	22	6028	176	8	5	14	23 M 15	14	
537	6	1	6	25	6045	193	25	3	3	6029	177	9	6	25	12 A 16	15	
538	7	3	7	6	6046	194	26	4	14	6030	178	10	7	6	-1 TO	1	
539	8	1	8	17	6047	195	27	5	25	6031	179	11	8	17	19		2
540	9	17	9	28	6048	196	28	6	6	6032	180	12	9	28	8 A 15	3	
541	1	18	1	9	6049	197	1	7	17	6033	181	13	1	9	31 M 18	4	
542	0	19	0	20	6050	198	2	8	28	6034	182	14	0	20	20 A 19	5	
543	1	20	1	1	6051	199	3	9	9	6035	183	15	1	1	5 A 15	6	
544	1	21	1	1	6052	200	4	10	20	6036	184	16	1	1	M 17	7	
545	14	22	1	23	6053	201	5	11		6037	185	17	1	23	16 A 18	8	
546	15	23	4	4	6054	202	6	12	12	6038	186	18	4	1	8 A 21	9	
547	16	24	1	15	6055	203	7	13	23	6039	187	19	1	13	24 M 17	10	
548	1	25	5	26	6056	204	8	14	4	6040	188	20	5	26	12 A	17 11	
549	7	26	1	7	6057	205	9	15	15	6041	189	21	1	7	4 A 20 12		
550	19	27	1	1	6058	206	10	16	26	6042	190	22	1	1	24 A 21	13	
551	20	28	1	8	6059	207	11	17	8	6043	191	23	1	30	9 A 18	14	
552	21	1	2	11	6060	208	12	18	19	6044	192	24	2	11	31 M 2(1	15	
553	22	2	3	22	6061	209	13	19	30	6045	193	25	3	22	20 A 21	1	
554	23	3	4	3	6062	210	14		11	6046	194	26	4	3	5 A	17	2
555	24	4	5	14	6063	211	15	2	22	6047	195	27	5	14	28 M 20	3	
556	25	5	6	25	6064	212	16	3	3	6048	196	28	6	25	16 A 20	4	
557	26	6	7	6	6065	213	17	4	14	6049	197	1	7	6	1 A 16	5	
558	27	7	8	17	6066	214	18	5	25	6050	198	2	8	17	21 A 17	6	
559	28	8	9	28	6067	215	19	6	6	6051	199	3	9	28	13 A 20	7	
560	29	9	1	9	6068	216	20	7	17	6052	200	4	1	9	28 M	1 5	
561	30	1	0	20	6069	217	21	8	28	6053	201	5	0	20	17 A	16	9
562	31	0	1	1	6070	218	22	9	9	6054	202	6	1	1	9 A	19	10
563	32	1	1	12	6071	219	23	10	20	6055	203	7	1	1	25 M	3	
564	33	1	1	23	6072	220	24	11	1	6056	204	8	1	23	13 A	P. M.	
565	34	1	1	4	6073	221	25	12	12	6057	205	9	1	4	5 A	18	
566	35	4	5	15	6074	222	26	13	23	6058	206	10	5	15	28 M 21		
567	36	1	1	26	6075	223	27	14	4	6059	207	11	1	26	10 A	15	
568	37	5	6	7	6076	224	28	15	15	6060	208	12	6	7	1 A 17		
569	38	1	1	18	6077	225		16	26	6061	209	13	1	18	21 A 18		
570	39	19	1	0	6078	226	2	17	8	6062	210	14	1	30	6 A 15		
571	40	20	2	11	6079	227	3	18	19	6063	211	15	2	11	29 M 18		
572	41	21	3	22	6080	228	4	19	30	6064	212	16	3	22	17 A 18		
573	42	22	4	3	6081	229	5	1	11	6065	213	17	4	3	9 A 21		
574	43	23	5	14	6082	230	6	2	22	6066	214	18	5	14	25 M 17		

Dionysian/Christinean			Byzantine era			Alexandrian era			Dates Easter with age of the moon	g E;		
Years of the era	Paralyde	G i c	Years of the era	Gcc i c	Years of the era	Paralyde	G i c					
575	44	24	25	6083	231	7	19	19	14	a	18	8
576	45	25	6	6084	232	8	14	20	5	a	20	9
577	46	26	17	6085	233	9	25	21	25	a	21	10
578	47	27	28	6086	234	10	6	22	10	a	17	11
579	48	28	9	6087	235	11	17	23	2	a	20	12
580	49	1	20	6088	236	12	28	24	21	a	20	13
581	50	2	1	6089	237	13	9	25	6	a	16	14
582	51	3	12	6090	238	14	20	26	29	M	19	15
583	52	4	23	6091	239	15	1	27	18	a	20	1
584	53	5	4	6092	240	16	12	28	2	a	15	2
585	54	6	15	6093	241	17	23	1	25	M	18	3
586	55	7	26	6094	242	18	4	2	14	A	19	4
587	56	8	7	6095	243	19	15	3	30	M	15	5
588	57	9	18	6096	244	20	26	4	18	a	15	6
589	58	10	0	6097	245	21	8	5	10	a	19	7
590	59	11	11	6098	246	22	19	6	26	M	15	8
591	60	12	22	6099	247	23	30	7	15	a	16	9
592	61	13	3	6100	248	24	11	8	6	a	18	10
593	62	14	14	6101	249	25	22	9	29	M	21	11
594	63	15	25	6102	250	26	3	10	11	a	15	12
595	64	16	6	6103	251	27	14	11	3	a	18	13
596	65	17	17	6104	252	28	25	12	22	a	18	14
597	66	18	28	6105	253	1	6	13	14	a	21	15
598	67	19	9	6106	254	2	17	14	30	M	17	1
599	68	20	20	6107	255	3	28	15	19	a	18	2
600	69	21	1	6108	256	4	9	16	10	a	20	3
601	70	22	12	6109	257	5	20	17	26	M	16	4
602	71	23	23	6110	258	6	1	18	15	a	17	5
603	72	24	4	6111	259	7	12	19	7	a	20	6
604	73	25	15	6112	260	8	23	20	22	M	15	7
605	74	26	26	6113	261	9	4	21	11	a	16	8
606	75	27	7	6114	262	10	15	22	3	a	19	9
607	76	28	18	6115	263	11	26	23	23	a	20	10
608	77	1	0	6116	264	12	8	24	7	a	16	11
609	78	2	11	6117	265	13	19	25	30	M	19	12
610	79	3	22	6118	266	14	30	26	19	a	20	13
611	80	4	3	6119	267	15	11	27	4	a	16	14
612	81	5	14	6120	268	16	22	28	26	M	18	15
613	82	6	25	6121	269	17	3	1	15	a	19	1
614	83	7	6	6122	270	18	-14	2	31	M	15	2
615	84	8	17	6123	271	19	25	3	20	a	16	3
616	85	9	28	6124	272	20	6	4	11	a	18	4
617	86	10	9	6125	273	21	17	5	3	a	21	5
618	87	11	20	6126	274	22	28	6	16	a	15	6
619	88	12	1	6127	275	23	9	7	8	a	18	7
620	89	13	12	6128	276	24	20	8	30	M	20	s
621	90	14	23	6129	277	25	1	9	19	a	21	9
622	91	15	4	6130	278	26	12	10	4	a	17	10
623	92	16	15	6131	279	27	23	11	27	M	20	11
624	93	17	26	6132	280	28	4	12	15	a	20	12

Dionysian Christian era				Byzantine era				Alexandrian era				Easter dates with the age of the moon	Indictions
Years of Christ	P. f.	2 s	Lunar cycle	Years creation	1. D.	Years of Christ	Years of Christ	Years of Christ	Years of Christ	Years of Christ			
625	94	18	7	6133	281	15	6117	265	13	7	31 M 16	13	
626	95	19	18	6134	282	26	6118	266	14	18	20 A 17	14	
627	96	20	0	6135	283	8	6119	267	15	30	12 A 21	15	
628	97	21	11	6136	284	19	6120	268	16	11	27 M 16	16	
629	98	22	22	6137	285	30	6121	269	17	22	16 A	17	
630	99	23	3	6138	286	11	6122	270	18	3	8 A 20	18	
631	100	24	14	6139	287	22	6123	271	19	14	24 M 16	19	
632	101	25	25	6140	288	3	6124	272	20	25	12 A	20	
633	102	26	6	6141	289	14	6125	273	21	6	4 A 19	21	
634	103	27	17	6142	290	25	6126	274	22	17	24 A 20	22	
635	104	28	28	6143	291	6	6127	275	23	28	9 A	23	
636	105	1	9	6144	292	17	6128	276	24	9	31 M 18	24	
637	106	2	20	6145	293	28	6129	277	25	20	20 A 19	25	
638	107	3	1	6146	294	9	6130	278	26	1	5 A	26	
639	108	4	12	6147	295	20	6131	279	27	12	28 M 18	27	
640	109	5	23	6148	296	1	6132	280	28	23	16 A	28	
641	110	6	4	6149	297	12	6133	281	1	4	8 A 21	29	
642	111	7	15	6150	298	23	6134	282	2	15	24 M 17	30	
643	112	8	26	6151	299	4	6135	283	3	26	13 A	31	
644	113	9	7	6152	300	15	6136	284	4	7	4 A 20	32	
645	114	10	18	6153	301	26	6137	285	5	18	24 A 21	33	
646	115	11	0	6154	302	8	6138	286	6	30	9 A 18	34	
647	116	12	11	6155	303	19	6139	287	7	11	1 A 21	35	
648	117	13	22	6155	304	30	6140	288	8	22	20 A 21	36	
649	118	14	3	6157	305	11	6141	289	9	3	5 A 17	37	
650	119	15	14	6158	306	22	6142	290	10	14	28 M 20	38	
651	120	16	25	6159	307	3	6143	291	11	25	17 A 21	39	
652	121	17	6	6160	308	14	6144	292	12	6	1 A 16	40	
653	122	18	17	6161	309	25	6145	293	13	17	21 A 17	41	
654	123	19	28	6162	310	6	6146	294	14	28	13 A 20	42	
655	124	20	9	6163	311	17	6147	295	15	9	29 M 16	43	
656	125	21	20	6164	312	28	6148	296	16	20	17 A	44	
657	126	22	1	6165	313	9	6149	297	17	1	9 A 19	45	
658	127	23	12	6166	314	20	6150	298	18	12	25 M 15	46	
659	128	24	23	6167	315	1	6151	299	19	23	14 A 16	47	
660	129	25	4	6168	316	12	6152	300	20	4	5	48	
661	130	26	15	6169	317	23	6153	301	21	15	28	49	
662	131	27	26	6170	318	4	6154	302	22	26	10	50	
663	132	28	7	6171	319	15	6155	303	23	7	2	51	
664	133	1	18	6172	320	26	6156	304	24	18	21	52	
665	134	2	0	6173	321	8	6157	305	25	30	0	53	
666	135	3	11	6174	322	19	6158	306	26	11	29	54	
667	136	4	22	6175	323	30	6159	307	27	22	18	55	
668	137	5	3	6176	324	11	6160	308	28	3	9	56	
669	138	6	14	6177	325	22	6161	309	1	14	25	57	
670	139	7	25	6178	326	3	6162	310	2	25	14 A 18	58	
671	140	8	6	6179	327	14	6163	311	3	6	6 A 21	59	
672	141	9	17	6180	328	25	6164	312	4	17	25 A 21	60	
673	142	10	28	6181	329	6	6165	313	5	28	10 A 17	61	
674	143	11	9	6182	330	17	6166	314	6	9	2 A 20	62	

Dionysian Christian era				Byzantine era				Alexandrian era				Dates do Easter with the age of the moon	Indictions
m	1	2	3	E	Years	D	I	Years	Radix	Lunar cycle	i		
675	144			6183	331			28	6167	315	7	22 A 21	3
676	145			6184	332			9	6168	316	8	6 A 16	4
677	146			6185	333			20	6169	317	9	29 M 19	5
678	147			6186	334			1	6170	318	10	18 A 20	6
679	148			6187	335			12	6171	319	11	3 A 16	7
680	149			6188	336			23	6172	320	12	25 M 18	8
681	150			6189	337			4	6173	321	13	14 A 19	9
682	151			6190	338			15	6174	322	14	30 M 15	10
683	152			6191	339			26	6175	323	15	19 A 16	11
684	153			6192	340			8	6176	324	16	6 A 17	12
685	154			6193	341			19	6177	325	17	10 A 18	13
686	155			6194	342			30	6178	326	18	26 M 15	14
687	156			6195	343			11	6179	327	19	15 A 16	15
688	157			6196	344			22	6180	328	20	7 A 19	1
689	158			6197	345			3	6181	329	21	3 A 18	2
690	159			6198	346			14	6182	330	22	23 A 19	3
691	160			6199	347			25	6183	331	23	14 A 21	4
692	161			6200	348			6	6184	332	24	30 M 17	5
693	162			6201	349			17	6185	333	25	19 A 18	6
694	163			6202	350			28	6186	334	26	11 A 21	7
695	164			6203	351			9	6187	335	27	26 M 16	8
696	165			6204	352			20	6188	336	28	15 A 17	9
697	166			6205	353			1	6189	337	1	7 A 20	10
698	167			6206	354			12	6190	338	2	23 M 16	11
699	168			6207	355			23	6191	339	3	11 A 16	12
700	169			6208	356			4	6192	340	4	3 A 19	13
701	170			6209	357			15	6193	341	5	23 A 20	14
702	171			6210	358			26	6194	342	6	8 A 17	15
703	172			6211	359			8	6195	343	7	30 M 19	1
704	173			6212	360			19	6196	344	8	19 A 20	2
705	174			6213	361			30	6197	345	9	4 A 16	3
706	175			6214	362			11	6198	346	10	27 A 19	4
707	176			6215	363			22	6199	347	11	15 A 17	5
708	177			6216	364			3	6200	348	12	31 A 18	6
709	178			6217	365			14	6201	349	13	20 A 19	7
710	179			6218	366			25	6202	350	14	12 A 20	8
711	180			6219	367			6	6203	351	15	3 A 21	9
712	181			6220	368			17	6204	352	16	16 A 18	10
713	182			6221	369			28	6205	353	17	8 A 19	11
714	183			6222	370			9	6206	354	18	31 A 20	12
715	184			6223	371			20	6207	355	19	19 A 21	13
716	185			6224	372			1	6208	356	20	4 A 16	14
717	186			6225	373			12	6209	357	21	27 A 17	15
718	187			6226	374			23	6210	358	22	15 A 18	1
719	188			6227	375			4	6211	359	23	3 A 19	2
720	189			6228	376			15	6212	360	24	20 A 20	3
721	190			6229	377			26	6213	361	25	12 A 21	4
722	191			6230	378			8	6214	362	26	28 A 18	5
723	192			6231	379			19	6215	363	27	16 A 19	6
724	193			6232	380			30	6216	364	28	3 A 20	7

Dionysian Christian era				Byzantine era			Alexandrian era							Easter dates with the age of the moon			
Anno Domini	Ab urbe condita	Ab Incarnatione	Ab Incarnatione	Lunar epochs	Ab Incarnatione	Ab Incarnatione	Ab Incarnatione	Ab Incarnatione	Ab Incarnatione	Ab Incarnatione	Ab Incarnatione	Ab Incarnatione					
725	194	6	4	3	6233	381	17	2	11	6217	365	Al	4	3	8	a	20
726	195	7	5	14	6234	382	18	3	22	6218	366		5	14	24		16
727	196	8	6	25	6235	383	19	4	3	6219	367	3	6	25	13	M	17
728	197	9	7	6	6236	384	20	5	14	6220	368	4	7	6	4	A	19
729	198	10	8	17	6237	385	21	6	25	6221	369	5	8	17	24	A	20
730	199	11	9	28	6238	386	22	7	6	6222	370	6	9	28	9	A	16
731	200	12	10	9	6239	387	23	8	17	6223	371	7	10	9	1	A	19
732	201	13	11	20	6240	388	24	9	28	6224	372	8	11	20	20	A	19
733	202	14	12	1	6241	389	25	10	9	6225	373	9	12	1	5	A	15
734	203	15	13	12	6242	390	26	11	20	6226	374	10	13	12	28	M	18
735	204	16	14	23	6243	391	27	12	1	6227	375	11	14	23	17	A	19
736	205	17	15	4	6244	392	28	13	12	6228	376	12	15	4	8	A	21
737	206	18	16	15	6245	393		14	23	6229	377	13	16	15	24	M	17
738	207	19	17	26	6246	394	2	15	4	6230	378	14	17	26	13	A	18
739	208	20	18	7	6247	395	3	16	15	6231	379	15	18		5	A	21
740	209	21	19	18	6248	396	4	17	26	6232	380	16	19	18	24	A	21
741	210	22	20	0	6249	397	5	18	8	6233	381	17	1	30	9	A	18
742	211	23	21	11	6250	398	6	19	19	6234	382	18	2	11	1	A	
743	212	24	22	22	6251	399	7	1	30	6235	383	19	3	22	14	A	15
744	213	25	23	3	6252	400	8	2	11	6236	384	20	4	3	5	A	17
745	214	26	24	14	6253	401	9	3	22	6237	385	21	5	14	28	M	20
746	215	27	25	25	6254	402	10	4	3	6238	386	22	6	25	17	A	21
747	216	28	26	6	6255	403	11	5	14	6239	387	23	7	6	2	A	17
748	217		27	17	6256	404	12	6	25	6240	388	24	8	17	21	A	17
749	218	2	28	28	6257	405	13	7	6	6241	389	25	9	28	13	A	20
750	219	3	10	9	6258	406	14	8	17	6242	390	26	10	9	29	M	16
751	220	4	11	20	6259	407	15	9	28	6243	391	27	11	20	18	A	17
752	221	5	12		6260	408	16	10	9	6244	392	28	12		9	A	19
753	222	6	13	12	6261	409	17	11	20	6245	393		13	12	25	M	15
754	223	7	14	23	6262	410	18	12	1	6246	394	2	14	23	14		16
755	224	8	15	4	6263	411	19	13	12	6247	395	3	15	4	6	A	19
756	225	9	16	15	6264	412	20	14	23	6248	396	4	16	15	28	M	21
757	226	10	17	26	6265	413	21	15	4	6249	397	5	17	26	10	A	15
758	227	11	18	7	6266	414	22	16	15	6250	398	6	18	7	2	A	18
759	228	12	19	18	6267	415	23	17	26	6251	399	7	19	18	22	A	19
760	229	13	20		6268	416	24	18	8	6252	400	8	1	30	6	A	15
761	230	14	21	11	6269	417	25	19	19	6253	401	9	2	11	29	NI	18
762	231	15	22		6270	418	26	1	30	6254	402	10	3	22	18	A	19
763	232	16	23	3	6271	419	27	2	11	6255	403	11	4	3	3	A	15
764	233	17	24	14	6272	420	28	3	22	6256	404	12	5	14	25	M	17
765	234	18	25	25	6273	421	1	4	3	6257	405	13	6	25	14	A	18
766	235	19	26	6	6274	422	2	5	14	6258	406	14	7	6	6	A	21
767	236	20	27	17	6275	423	3	6	25	6259	407	15	8	17	19	A	15
768	237	21	28	28	6276	424	4	7	6	6260	408	16	9	28	10	A	17
769	238	22	29	9	6277	425	5	8	17	6261	409	17	10	9	2	A	20
770	239	23	30	20	6278	426	6	9	28	6262	410	18	11	20	22	A	21
771	240	24	31		6279	427	7	10	9	6263	411	19	12	1	7	A	17
772	241	25	32	12	6280	428	8	11	20	6264	412	20	13	12	29	M	19
773	242	26	33	23	6281	429	9	12	1	6265	413	21	14	23	18	A	20
774	243	27	34	4	6282	430	10	13	12	6266	414	22	15	4	3	A	16

Dionysian Christian era					Era byzantin					Alexandrian era					from		Easter dates with age the moon	(c) E
† 11 1.5	Cycle pascal	7) C)	solair c.)	U c.)	Ans de la créatio n	pascal C)	0 79 (i) C)	i. *2 (i) Z)	1- 2 C)	r. 2 E 2.4, -o	i. i. i.) D	c 4) Q	* =	3(c.) C) E				
775	244	28	16	15	6283	431	11	13	23	6267	415	23	16	15	26	M	19	
776	245	1	17	26	6284	432	12	14	4	6268	416	24	17	26	14	a	19	
777	246	2	18	7	6285	433	13	15	15	6269	417	25	18	7	30	M	15	
778	247	3	19	18	6286	434	14	16	26	6270	418*	26	19	18	19	a	16	
779	248	4	1	0.	6287	435	15	17	8	6271	419	27	1	30	11	a	20	
780	249	5	2	11	6288	436	16	18	19	6272	420	28	2	11	26	M	15	
781	250	6	3	22	6289	437	17	19	30	6273	421	1	3	22	15	a	16	
782	251	7	4	3	6290	438	18	1	11	6271	122	2	4	3	7	a	19	
783	252	8	5	14	6291	439	19	2	22	6275	123	3	5	14	23	M	15	
784	253	9	6	25	6292	440	20	3	3	6276	124	4	6	25	11	a	15	
785	254	10	7	6	6293	441	21	4	14	6277	125	5	7	6	3	a	18	
786	255	11	8	17	6294	442	22	5	25	6278	126	6	8	17	23	a	19	
787	256	12	9	28	6295	443	23	6	6	6279	127	7	9	28	8	a	15	
788	257	13	10	9	6296	444	24	7	17	6280	128	8	10	9	30	M	17	
789	258	14	11	20	6297	445	25	8	28	6281	129	9	11	20	19	a	18	
790	259	15	12	1	6298	446	26	9	9	6282	430	10	12	1	11	a	21	
791	260	16	13	12	6299	447	27	10	20	6283	431	11	13	12	27	'M	17	
792	261	17	14	23	6300	448	28	11	1	6284	432	12	14	23	15	a	17	
793	262	18	15	4	6301	449	1	12	12	6285	433	13	15	4	7	a	20	
794	263	19	16	15	6302	450	2	13	23	6286	434	14	16	15	23	M	16	
795	264	20	17	26	6303	451	3	14	4	6287	435	15	17	26	12	a	17	
796	265	21	18	7	6304	452	4	15	15	6288	436	16	18	7	3	a	19	
797	266	22	19	18	6305	453	5	16	26	6289	437	17	19	18	23	a	20	
798	267	23	1	0	6306	454	6	17	8	6290	438	18	1	30	8	a	17	
799	268	24	2	11	6307	455	7	18	19	6291	439	19	2	11	31	M	20	
800	269	25	3	22	6308	456	8	19	30	6292	440	20	3	22	19	a	20	
801	270	26	4	3	6309	457	9	1	11	6293	441	21	4	3	4	a	16	
802	271	27	5	14	6310	458	10	2	22	6294	442	22	5	14	27	M	19	
803	272	28	6	25	6311	459	11	3	3	6295	443	23	6	25	16	a	20	
804	273	1	7	6	6312	460	12	4	14	6296	444	24	7	6	31	M	15	
805	274	2	8	17	6313	461	13	5	25	6297	445	25	8	17	20	a	16	
806	275	3	9	28	6314	462	14	6	6	6298	446	26	9	28	12	a	19	
807	276	4	10	9	6315	463	15	7	17	6299	447	27	10	9	28	M	15	
808	277	5	11	20	6316	464	16	8	28	6300	448	28	11	20	16	a	15	
809	278	6	12	1	6317	465	17	9	9	6301	449	1	12	1	8	a	18	
810	279	7	13	12	6318	466	18	10	20	6302	450	2	13	12	31	M	21	
811	280	8	14	23	6319	467	19	11	1	6303	451	3	14	23	13	a	15	
812	281	9	15	4	6320	468	20	12	12	6304	452	4	15	4	4	a	17	
813	282	10	16	15	6321	469	21	13	23	6305	453	5	16	15	27	M	20	
814	283	11	17	26	6322	470	22	14	4	6306	454	6	17	26	16	a	21	
815	284	12	18	7	6323	471	23	15	15	6307	455	7	18	7	1	a	17	
816	285	13	19	18	6324	472	24	16	26	6308	456	8	19	18	20	a	17	
817	286	14	1	0	6325	473	25	17	8	6309	457	9	1	30	12	a	21	
818	287	15	2	11	6326	474	26	18	19	6310	458	10	2	11	28	M	17	
819	288	16	3	22	6327	475	27	19	30	6311	459	11	3	22	17	a	18	
820	289	17	4	3	6328	476	28	1	11	6312	460	12	4	3	8	a	20	
821	290	18	5	14	6329	477	1	2	22	6313	461	13	5	14	24	M	16	
822	291	19	6	25	6330	478	2	3	3	6314	462	14	6	25	13	a	17	
823	292	20	7	6	6331	479	3	4	14	6315	463	15	7	6	5	a	20	
824	293	21	8	17	6332	480	4	5	25	6316	464	16	8	17	24	a	20	

Dionysian Christian era					Byzantine era					Alexandrian era					Easter dates with the age of the moon	Indictions
Ans de Jesus-Christ	7th Cycle paschal	Cycle solaire	5 ^{me} tire (ans de J.)	Lunar epochs	Years of creation	É 73	É 74	É 75	É 76	Years creation	É 77	Cycle	Lunar cycle	Lunar Epacts		
825	294	2 2	9	28	6334	481	5	6	6	6317	465	Solar	Lunar cycle	esD Lul	9 A 16	3
826	295	23	10	9	6335	482	6	7	17	6318	466			esD Lul	1 A 19	4
827	291;	21	11	20	6336	483	7	8	28	6319	467			esD Lul	21 TO 20	5
828	297	25	12	1	6337	484	8	9	9	6320	468			esD Lul	5 A 15	6
829	29;	21;	13	12	6338	485	9	10	20	6321	469			esD Lul	28 M 18	7
830	299	27	14	23	6339	486	10	11	1	6322	470			esD Lul	17 A 19	8
831	300	28	15	4	6340	487	11	12	12	6323	471			esD Lul	2 A 15	9
832	301	1	16	15	6341	488	12	13	23	6324	472			esD Lul	24 M 17	10
833	302	2	17	26	6342	489	13	14	4	6325	473			esD Lul	13 A 18	11
834	303	3	18	7	6343	490	14	15	15	6326	474			esD Lul	5 A 21	12
835	304	4	19	18	6344	491	15	16	26	6327	475	Solar	Lunar cycle	esD Lul	18 A 15	13
836	305	5	1	0	6345	492	16	17	8	6328	476			esD Lul	9 A 18	14
837	306	6	2	11	6346	493	17	18	19	6329	477			esD Lul	1 A 21	15
838	307	7	3	22	6347	494	18	19	30	6330	478			esD Lul	14 A 15	1
839	308	8	4	3	6348	495	19	1	11	6331	479			esD Lul	6 A 18	2
840	309	9	5	14	6349	496	20	2	22	6332	480			esD Lul	28 M 20	3
841	310	10	6	25	6350	497	21	3	3	6333	481			esD Lul	17 A 21	4
842	311	11	7	6	6351	498	22	4	14	6334	482			esD Lul	2 A 17	5
843	312	12	8	17	6352	499	23	5	25	6335	483			esD Lul	22 A 18	6
844	313	13	9	28	6353	500	24	6	6	6336	484			esD Lul	13 A 20	7
845	314	14	10	9	6354	501	25	7	17	6337	485	Solar	Lunar cycle	esD Lul	29 M 16	8
846	315	15	11	20	6355	502	26	8	28	6338	486			esD Lul	18 A 17	9
847	316	16	12	1	6356	503	27	9	9	6339	487			esD Lul	10 A 20	10
848	317	17	13	12	6357	504	28	10	20	6340	488			esD Lul	25 M 15	11
849	318	18	14	23	6358	505	1	11	1	6341	489			esD Lul	14 A 16	12
850	319	19	15	4	6359	506	2	12	12	6342	490			esD Lul	6 A 19	13
851	320	20	16	15	6360	507	3	13	23	6343	491			esD Lul	22 M 15	14
852	321	21	17	26	6361	508	4	14	4	6344	492			esD Lul	10 A 18	15
853	322	22	18	7	6362	509	5	15	15	6345	493			esD Lul	2 A 18	1
854	323	23	19	18	6363	510	6	16	26	6346	494			esD Lul	22 A 19	2
855	324	24	1	0	6364	511	7	17	8	6347	495	Solar	Lunar cycle	esD Lul	7 A 16	3
856	325	25	2	11	6365	512	8	18	19	6348	496			esD Lul	29 M 18	4
857	326	26	3	22	6366	513	9	19	30	6349	497			esD Lul	18 A 19	5
858	327	27	4	3	6367	514	10	1	11	6350	498			esD Lul	3 A 15	6
859	328	28	5	14	6368	515	11	2	22	6351	499			esD Lul	26 M 18	7
860	329	1	6	25	6369	516	12	3	3	6352	500			esD Lul	14 A	8
861	330	2	7	6	6370	517	13	4	14	6353	501			esD Lul	8	9
862	331	3	8	17	6371	518	14	5	25	6354	502			esD Lul	6 A 21	10
863	332	4	9	28	6372	519	15	6	6	6355	503			esD Lul	19 A 15	11
864	333	5	10	9	6373	520	16	7	17	6356	504			esD Lul	22 A 21	12
865	334	6	11	20	6374	521	17	8	28	6357	505	Solar	Lunar cycle	esD Lul	7 A 17	13
866	335	7	12	1	6375	522	18	9	9	6358	506			esD Lul	30 M 20	14
867	336	8	13	12	6376	523	19	10	20	6359	507			esD Lul	18 A 20	15
868	337	9	14	23	6377	524	20	11	1	6360	508			esD Lul	3 A 16	1
869	338	10	15	4	6378	525	21	12	12	6361	509			esD Lul	26 M 19	2
870	339	11	16	15	6379	526	22	13	23	6362	510			esD Lul	15 A 20	3
871	340	12	17	26	6380	527	23	14	4	6363	511			esD Lul	30 M 15	4
872	341	13	18	7	6381	528	24	15	15	6364	512			esD Lul	19 A 16	5
873	342	14	19	18	6382	529	25	16	26	6365	513			esD Lul	11 A 20	6
874	343	15	1	0	6383	530	26	17	8	6366	514			esD Lul	26 M 19	7

Dionysian Christian era					Byzantine era					Alexandrian era					The dates easter with the age of the moon	wri e.
E It	•	ee	"±	â. sr4	73'	'g n	-c. e; n	.54	"c'lt	5	-2, n					
875	344	16	2	11	6383	531	27	18	19	6367	515	11	2	11	27 M 16	8
876	345	17	3	22	6384	532	28	19	30	6368	516	12	3	22	15 A 16	9
877	346	18	4	3	6385	1	1	1	11	6369	517	13	4	3	7 A 19 10	2 3
878	347	19	5	14	6386	2	2	2	22	6370	518	14	5	14	M 15 11	
879	348	20	6	25	6387	3	3	3	3	6371	519	15	6	25	12 A	16 12
880	349	21	7	6	6388	4	4	4	14	6372	520	16	7	6	3 A 18 13	
881	350	22	8	17	6389	5	5	5	25	6373	521	17	8	17	23 A	19 14
882	351	23	9	28	6390	6	6	6	6	6374	522	18	9	28	8 A 15 15	
883	352	24	10	9	6391	7	7	7	17	6375	523	19	10	9	31 M 18	1
884	353	25	11	20	6392	8	8	8	28	6376	524	20	11	20	19 A 18	2
885	354	26	12	1	6393	9	9	9	9	6377	525	21	12	1	11 A 21	3
886	355	27	13	12	6394	10	10	10	20	6378	526	22	13	12	2 7 M 17 4	
887	356	28	14	23	6395	11	11	11	1	6379	527	23	14	23	16 A 18	5
888	357	1	15	4	6396	12	12	12	12	6380	528	24	15	4	7 A 20 6	
889	358	2	16	15	6397	13	13	13	23	6381	529	25	16	15	23 M 16	7
890	359	3	17	26	6398	14	14	14	4	6382	530	26	17	26	12 A 17	8
891	360	4	18	7	6399	15	15	15	15	6383	531	27	18	7	4 A 20 9	2 3
892	361	5	19	18	6400	16	16	16	26	6384	532	28	19	18	A 20 10	

For the following years, we will find, in each era, the year of the respective Easter cycle, with the other corresponding indications, by subtracting the number 532 from the year expressed and referring in our columns to the year obtained by this operation. If it is not there, because it is too low, we will proceed again on it in the same way.

Let, in the Dionysian era, the year 1330: the corresponding year of the Paschal cycle will be the same as for the year 798 (= 1330 minus 532), namely (cf. our columns above): 267.

Or again, in the Byzantine era, the year 6980 (low date taken on purpose): the year of the Paschal cycle will be the same as for the year 6448 (= 6980 minus 532), absent from our columns, and that the year 5916 (= 6448 minus 532), namely (cf. our columns): 64.

lii

agreement

BETWEEN THE YEARS OF THE HEGIRA
AND THE YEARS OF THE CHRISTIAN ERA

f)	Mk	2 Safar	3 Robi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shaban	9 Ramadhan	10 Shawwal	11. Dju-l-kade	12
Moharrem												
1	622 623 VII 16 F 5 C	VIII 15 4	IX 13 22	X 13 22	XI 11 X39	XII II 623 XI 30	I 9 XII 29 624	II I 28	III II 26	IV 8 III 27	V 7 IV 25	\ \
3	624 VI 24 A	VII 24	VIII 22	IX 21	X 20	19	18,625	17	15	17	15	
4	625 13 E	13	11	10	9	8		7,626	6	4	6	4
5*	626 2B	2	VII 31	VIII 30	IX 28	X 28	XI 26	XII 26	627	I 24	II 23	III 21
6	627 V 23 G	VI 22	21	20	18	18	16	16,628	14	13	13	12
7*	628 11 D	10	9	8	6	6	4	1,629	2	1	1	1
8	629 1B	V 31	VI 29	VII 29	VIII 27	IX 26	X 25	XI 21	XII 23	630	12	11
9	630 IV 20 F	20	18	18	16	15	14	13	12	631	11	10
10*	631 9 C	9	7	7		4	2		1	XII 31	6:32	1 29
11	632 III 29 A	IV 28	V 27	VI 26	II 25	V III 24	IX 22	X 22		XI 20	20	633
12	633 18 E	17	16	15	11	13	11	11	9	9	634	7
13*	634 7B	6	5	4	3	2	VIII 31	IX 30		X 29	XI 28	XII 27
14	635 II 25 G	III 27	IV 25	V 25	V I 23	VII 23	21	20		19	18	17
15	636 14 D	15	13	13	11	11	9	8	7	6	5	637
16*	637 2 A	4	2	2	V 31	VI 30	VII 29	VIII 28		IX 26	X 26	12 I
17	638 I 23 F	II 22	III 23	IV 22	21	20	19	18	7	16	16	I
18*	639 12 C	11	12	11	10	9	8	7		5	5	
19	640 2 A	1	I	III 31	IV 29	V 29	VI 27	VII 27	VIII 25	IX 24		
21	640 XII 21 E	641 I 20	II 18	20	18	18	16	16	14	13	12	I
21*	641 10 13	642 I 9	7	9	7	7	5	5	3	2	1	
22	642 XI 30 G	XII 30	I 28	II 27	III 28	IV 27	V 26	VI 25		VII 21	VIII 23	IX 21
23	643 19 (I)	19	17	16	16	15	14	13		12	11	10
24*	644 7 A	7	5	4	5	4	3	3			VII 31	VIII 29
25	645 X 28 F	XI 27	XII 26	I 25	I 23	III 25	IV 23			V 11	21	19
26*	646 17 C	16	15	14	12	14	12	12		10	10	8
27	647 7 A	6,5,648	4	2	3					V 30	VI 29	VII 28
28*	648 IX 25 E	X 25	XI 23	XII 23	I 21	II 20	III 21	IV 20		19	18	17
29	649 14 B	14	12	12	10	9	10	9		8	8	6
30	650 4 G	4	2	2	XII 31	I 30	II 28	III 30		IV 28	V 28	VI 26
31	651 VIII 24 D	IX 23	X 22	XI 21	20	19	17	18		16	16	14
32*	652 12 A	11	10	9	8	7	5	7		5	5	3
33	653 2 F	1	IX 30	X 30	XI 28	XII 28	I 26	II 25	III 26	IV 25	V 24	VI 23
34	654 VII 22 C	VIII 21	19	19	17	17	15	14		15	14	13
35*	655 II G	10	8	8	6	6	4	3	3	2		31
36	656 VI 30 E	VII 30	VIII 28	IX 27	X 26	XI 25	XII 24	I 23	II 21	III 23	IV 21	21
37*	657 19B	19	17	16	15	14	13	12		10	12	10
38	658 9 G	9	7	6	5	4	3	2		1	31	III 31
39	659 V 29 D	VI 28	VII 27	VIII 26	IX 24	X 24	XI 22	XII 22	660	I 20	II 19	19
40*	660 17 A	16	15	14	12	12	10	10	661	8	7	8
41	661 7 F	6	5	4	2	2	X 31	XI 30	XII 29	662	I 28	II 26
42	662 IV 26 C	V 26	VI 24	VII 24	VIII 22	IX 21	20	19		18	17	15
43*	663 15 G	15	13	13	11	10	9	8		7	6	4
44	664 4 E	4	2	2	VII 31	VIII 30	IX 28	X 28		XI 26	XII 26	I 24
45	665 III 24B	IV 23	V 22	VI 21	20	19	17	17		15	15	13
46*	666 13 F	12	11	10	9	8	6	6		4	4	2
47	667 3d	2	1	V 31	VI 29	VII 29	VIII 27	IX 26		X 25	XI 24	XII 23
48*	668 II 20 A	III 21	IV 19	19	17	17	15	14		13	12	11
49	669 9F	11	9	9	7	7	5	4		3	2	1
50	670 I 29 C	II 28	III 29	IV 28	V 27	VI 26	VII 25	VIII 24		IX 22	X 22	XI 20
51*	671 18 G	17	18	17	16	15	14	13		11	11	9
52	672 8 E	7	7	6	5	4	3	2		VIII 31	IX 30	X 29
53	672 XII 27 B	673 I 26	II 24	III 26	IV 24	V 24	VI 22	VII 22		20	19	18
54*	673 16 F	15	13	15	13	13	11	11		9	8	
55	674 6 D	675 5	3	5	3	3	1			VII 30	VIII 29	IX 28

Roman numerals refer to the Julian months in their order: I = January; II = February; etc.
The letters indicate the days of the week: A = Sunday; B = Monday; etc.
Asterisks refer to intercalary years, that is, those in which the last month has 30 days, instead of 29.

	U 40 F. g	Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	Redjob	8 Malan	9 Ramadhan	10 Shawwal	11 Dju-l-kade	12 Dju-l-hidje
56*	675	XI 25 A	XII 25	I 23	22	III 22	IV 21	V 20	VI 19	VII 18	VIII 17	IX 15	X 15
57	676	14 F	14	12	11	12	11	10	9	8	7	5	5
58*	677	3 C	3	1	31	1	11 31	IV 29	V 29	VI 27	VII 27	VIII 25	IX 24
59	678	X 23 G	XI 22	XII 21	I 679	II 18	20'	18	18	16	16	14	13
60	679	13 E	12	11,680	10	8	9	7	7	5	5	3	2
61	680	1 13	X 31	XI 29	XII 29	I 27	II 26	III 27	IV 26	V 25	VI 24	VII 23	VIII 22
62*	681	IX 20 F	20	18	18	16	15	16	15	14	13	12	11
63	682	10 D	10	8	8	E83	6	5	5	4	3	1	1
64	E83	VIII 30 A	IX 29	X 28	XI 27	XII 26	684	1 25	11 23	III 24	IV 22	V 22	VII 20
65*	684	18 E	17	16'	15	14,685	13	11	'13	11	11	9	9
66	685	8 C	7	6	5	4,686	3	1	3	1	1	V 30	VI 29
67*	686	VII 28 G	VIII 27	IX 25 I	X 25	XI 23'	XII 23	687	I 21	II 20	III 21	IV 20	19
68	687	18 E	17	15'	15	13	13,688	• 11	10	10	9	8	7
69	688	6 13	5	3	3	1	1	XII 30	689	I 29	II 27	III 29	IV 27
70*	689	VI 25 F	VII 25	VIII 23;	IX 22	X 21	XI 20	19	690	18	16	16	16
71	690	15 D	15	13	12	11	10	9	691	8	6	8	6
72	691	4 A	4	2	1	IX 30	X 30	XI 28	XII 28	692	I 26	II 25	III 25
73*	692	V 23 E	VI 22	VII 21	VIII 20	18	18	16	16	693	14	13	14
74	693	13 C	12	11	10	8	8	6	6	694	4	3	4
75	694	2 G	1	VI 30	VII 30	VIII 28	IX 27	X 26	XI 25	XII 24	695	I 23	II 21
76*	695	IV 21 D	V 21	19	19	17	16	15	14	13	696	12	• 10
77	696	10 B	10	8	8	6	5	4	3	2	697	1	I 30
78*	697	III 30 F	IV 29	V 28	VI 27	VII 26	VIII 25	IX 23	X 23	XI 21	XII 21	698	I 19
79	698	20 D	19	18	17	16	15	13	13	11	11	699	9
80	699	9 A	8	7	6	5	4	2	2	X 31	XI 30	XII 29	700
81*	700	II 26 E	III 27	IV 25	V 25	VI 23	VII 23	VIII 21	IX 20	19	18	17	701
82	701	15 C	17	15	15	13	13	11	10	9	8	7	702
83	702	4 G	6	4	4	2	2	VII 31	VIII 30	IX 28	X 28	XI 26	XII 26
84*	703	I 24 D	II 23	III 24	IV 23	V 22	VI 21	20	19	17	17	15	15
85	704	14 B	13	13	12	11	10	9	8	6	6	4	4
86*	705	2 F	1	2	1	IV 30	V 30	VI 28	VII 28	VIII 26	IX 25	X 24	XI 23
87	705	XII 23 D	I 22	II 20	III 22	20	20	18	18	16	15	14	13
88*	706	12 A	11	9	11	9	9	7	7	5	4	3	2
89	707	I E	XII 31	708	I 29	II 28	IV 27	V 26	VI 25	VII 24	VIII 23	IX 21	X 21
90	708	XI 20 C	20	709	18	17	17	16	15	14	13	11	11
91	709	9 G	9	7	6	7	6	5	4	3	2	VIII 31	IX 30
92*	710	X 29	XI 28	XII 27	711	I 26	II 24	III 26	IV 24	V 24	VI 22	VII 22	20
93	711	19 B	18	17	16	14	15	13	13	11	11	9	8
94	712	7 E	6	5	4	2	4	2	2	V 31	VI 30	VII 29	VIII 28
95*	713	IX 26 C	X 26	XI 24	XII 24	714	I 22	II 21	III 22	IV 21	20	19	18
96	714	16 A	16	14	14	715	12	11	12	11	10	9	8
97*	715	5 E	5	3	3	716	1	I 31	II 29	III 30	IV 28	V 28	VI 26
98	716	VIII 25 C	IX 24	X 23	XI 22	XII 21	717	I 20	18	20	18	16	VII 26
99	717	14 G	13	12	11	10	718	9	7	9	7	5	5
100*	718	3 D	2	X 31	XI 29	XII 29	719	I 27	II 26	III 27	IV 26	V 25	VI 24
101	719	VII 24 B	VIII 23	IX 21	21	19	19	720	17	16	16	1. 5	14
102	720	12 F	11	9	9	7	7	721	5	4	5	4	3
103*	721	I C	VII 31	VIII 29	IX 28	X 27	XI 26	XII 25	722	I 24	II 22	III 24	IV 22
104	722	VI 21 A	21	19	18	17	16	15	723	14	12	14	12
105	723	10 E	10	8	7	6	5	4	724	3	2	III 31	IV 30
106*	724	V 29 B	VI 28	VII 27	VIII 26	IX 24	X 24	XI 22	XII 22	725	I 20	II 19	20
107	725	19 G	18	17	16	14	14	12	12	726	10	9	10
108*	726	8 D	7	6	5	3	3	1	1	XII 30	727	I 29	II 27
109	727	IV 28 B	V 28	VI 26	VII 26	VIII 24	IX 23	X 22	XI 21	20	728	19	17
110	728	16 F	16	14	14	12	11	10	9	8	729	7	5

Hegira years	1. 1. I. Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redje b	8 Shaban	9 Ramadhan	10 Shawwal	11. Dju-l-kade	12 Dju-l-hidje
111*	729 IV 5 C	V 5	VI 3	VII 3	VIII 1	VIII 31	IX 19	X 29	XI 27	XII 27	730 I 25	II 24
112	730 III 26 A	IV 25	V 24	VI 23	VII 22	VII 21	IX 19	X 19	XI 17	XII 17	731 I 15	II 14
113	731 15 E	14	13	12	11	10	8	8	6	6	732 I 4	II 3
114*	732 3 B	2	1	V 31	VI 29	VII 29	Viii 17	IX 26	X 25	XI 24	XII 23	733 I 22
115	733 II 21 G	III 23	IV 21	21	19	19	17	16	15	14	13	734 I 12
116*	734 10 D	12	10	10	8	8	6	5	4	3	2	735 I 1
117	735 I 31 B	2	III 31	IV 30	V 29	VI 28	Vii 15	VIII 26	IX 24	X 24	XI 22	XII 22
118*	736 20 F	II 19	19	18	17	16	4	3	1	1	X 30	XI 29
119	737 8 C	7	8	7	6	5	4	3	1	1	20	19
120	737 XII 29 A	738 I 28	II 26	III 28	IV 26	V 26	Vi 13	VII 24	VIII 22	IX 21	9	8
121	738 18 E	739 17	15	17	15	15	13	13	11	10	IX 27	X 27
122*	739 7 B	740 6	4	5	3	3	22	VI 21	VII 30	VIII 29	IX 27	X 27
123	740 XI 26 G	XII 26	741 I 24	II 23	III 24	IV 23	V 11	VI 21	20	19	17	17
124	741 15 D	15	742 13	- 12	13	12	30	V 30	VI 28	VII 28	VIII 26	IX 25
125*	742 4 A	4	743 2	1	2	1	Iv 19	V 30	VI 28	VII 28	VIII 26	IX 25
126	743 X 25 F	XI 24	XII 23	744 I 22	II 20*	III 21	19	19	17	17	15	14
127*	744 13 C	12	11	745 10	8	10	8	8	6	6	4	3
128	745 3 A	2	1	XII 31	746 I 29	II 28	III 18	IV 28	V 27	VI 26	VII 25	VIII 24
129	746 IX 22 E	X 22	XI 20	20	747 18	17	6	5	4	3	2	1
130*	747 11 B	11	9	9	748 7	6	6	5	4	3	2	1
131	748 VIII 31 G	IX 30	X 29	XI 28	XII 27	749 I 26	li 13	III 26	IV 24	V 24	VI 22	VII 22
132	749 20 D	19	18	17	16	750 15	2	15	13	13	11	11
133*	750 9 A	8	7	6	5	751 4	23	II 22	III 22	IV 21	V 31	VI 30
134	751 VII 30 F	VIII 29	IX 27	X 27	XI 25	XII 25	I 11	II 22	III 22	IV 21	20	19
135	752 18 C	17	15	15	13	13	753 11	10	11	10	9	8
136*	753 7 G	6	4	4	2	2	31	754 I 30	II 28	III 30	IV 28	V 28
137	754 VI 27 E	VII 27	VIII 25	IX 24	X 23	XI 22	Xii 21	755 20	18	20	18	18
138*	755 16 B	16	14	13	12	11	10	756 9	7	8	6	6
139	756 5 G	5	3	2	1	X 31	xi 18	XII 29	757 I 27	II 26	III 27	IV 26
140	757 V 25 D	VI 24	VII 23	VIII 22	IX 20	20	18	758 16	15	16	15	15
141*	758 14 A	13	12	11	9	9	7	759 5	4	5	4	4
142	759 4 F	3	2	1	VIII 30	IX 29	X 16	XI 27	XII 26	760 125	II 23	III 24
143	760 IV 22 C	V 22	VI 20	VII 20	18	17	5	15	14	761 13	11	13
144*	761 II G	11	9	9	7	6	25	X 25	XI 23	XII 23	763 I 31	II 2
145	762 1 E	1	V 30	VI 29	VII 28	VIII 27	Ix 14	X 25	XI 23	XII 23	763 I 21	II 20
146*	763 III 21 B	IV 20	19	18	17	16	3	14	12	12	764 10	9
147	764 10 G	9	8	7	6	5	23	IX 22	X 21	XI 20	XII 30	765 129
148*	765 II 27 D	III 29	IV 27	V 27	VI 25	VII 25	Viii 12	IX 22	X 21	XI 20	766 18	7
149	766 16 A	18	16	16	14	14	2	1	IX 30	X 30	XI 18	XII 28
150	767 6 E	8	6	6	4	4	21	VIII 20	18	18	16	16
151	768 I 26 C	II 25	III 23	IV 24	V 23	VI 22	Vii 10	VIII 20	18	18	16	16
152*	769 14 G	13	14	13	12	11	30	VII 30	VIII 28	IX 27	X 26	XI 25
153	770 4 E	3	4	3	2	1	Vi 19	VII 30	19	17	15	1.1
154	770 XII 24 B	771 I 23	II 21	III 23	IV 21	V 21	7	5	4	3	2	1
155*	771 13 F	772 12	10	11	9	9	28	VI 27	VII 26	VIII 25	IX 23	772 12
156	772 2 D	773 1	I 30	1	III 30	IV 29	V 17	VI 27	VII 26	VIII 25	IX 23	773 12
157*	773 XI 21 A	XII 21	774 I 19	II 18	19	18	25	VI 27	VII 26	VIII 25	IX 23	774 12
158	774 11 F	11	775 9	8	9	8	25	V 25	VI 23	VII 23	VIII 21	IX 20
159	775 X 31 C	XI 30	XII 29	776 128	II 26	III 27	Iv 14	14	12	12	10	9
160*	776 19 G	18	17	777 16	14	16	4	4	2	2	VII 31	VIII 30
161	777 9 E	8	7	778 6	4	6	24	IV 23	V 22	VI 21	20	19
162	778 IX 28 B	X 28	XI 26	XII 26	779 I 24	II 23	lii 12	11	10	9	8	7
163*	779 17 F	17	15	15	13	12	2	1	IV 30	V 30	VI 28	VII 28
164	780 6 D	6	4	4	2	1	19	III 21	19	19	17	17
165	781 VIII 26 A	IX 25	X 24	XI 23	XII 22	782 I 21	he 19	III 21	19	19	17	17

• f	e	Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Siban	9 Ramadhan	10 Shawwal	11 Dju-l-kade	12 Dju-l-hidje
166*	782	VIII 15 E	I X 1 4	X 1 3	XI 1 2	XII 1 1	783 I 10 II	8	III 10	IV 8	V 8	VI 6	VII 6
167	783	5 C	2 4	3 I X	2	1	XII 31	784 I 29	II 28	III 28	IV 27	V 26	VI 25
168*	784	VII 24 G	V I I I	2 1 1 1	X 21	XI 19	19	785 17	16	17	16	15	14
169	785	14 E	2 3 1 3	V I I I	11	9	9	786 7	6	6	6	5	4
170	786	3 B	2	3 1	IX 30	X 29	XI 28	XII 27	787 I 26	II 24	III 26	IV 24	V 24
171*	787	VI 22 F	V I I	20	1 9 8	1 8 7	17	16	788 15	13	14	12	12
172	788	11 D V	2 2 1 1	9 V I I I	IX	6	5	789 4	2	4	2	2	2
173	789	31 A 20	V I 3 0	VII 29	2 8	2 6	X 26	XI 24	XII 24	790 I 22	II 21	III 22	IV 21
174*	790	E	1 9 9	18	1 7 7	1 5	15	13	• 13	791 11	10	11	10
175	791	10 C	V 2 8	18	5	5	5	3	792 1	I 31	II 29	III 30	IV 30
176*	792	I V 2 8	1 8 7	VI 2 6	V I I	VIII 24 14	IX 23	X 22	XI 21	XII 20	793 I 19	17	19
177	793	G 1 8 E	I V	16 5	2 6 1 6	3 VII 23	13	12	11	10	794 9	7	9
178	794	7 B I I I	2 6	V 2 5	5 V I	12	2	1	X 31	XI 29	XII 29	795 I 27	II 26
179*	795	2 7 F	15	14	2 4	13	VIII 22	IX 20	20	18	18	796 16	15
180	796	16 D					11	9	9	7	7	797 5	4
181	797	5 A	4	3	2	1 V I	VII 31	VIII 29	IX 28	X 27	XI 26	XII 25	798 I 24
182*	798	II 22 E	III 24	IV 22	V 22	2 0	20	18	17	16	15	14	799 13
183	799	12 C	14	12	1 2 IV	1 0 V	10	8	7	6	5	4	800 3
184	800	I G	2	III 31	3 0	2 9	VI 28	VII 27	VIII 26	IX 24	X 24	XI 22	XII 22
185*	801	I 20 D	II 19	20	19	18	17	16	15	13	13	11	11
186	802	10 B	9	10 II	9 I I I	8	7	6	5	3	3	1	
187*	802	XII 30	803 I 29	27	2 9	IV 27	V 27	VI 25	VII 25	VIII 23	IX 22	X 21	XI 20
188	803	F 20 D	804 19	17 5	1 8 7	16	16	14	14	12	11	10	9
189	804	8 A XI	805 7	806 I 25	II 24	5	5	3	3	1	VIII 31	IX 29	X 29
190*	805	2 7 E	XII 27	15	4	1 5 3	14	13	12	11	10	8	
191	806	17 C	17808	4	1 4	1 5 3	14	13	12	11	10	8	
192	807	6 G 25	6	XII 23	3 I	II	2	V 31	VI 29	VII 29	VIII 27	IX 26	
193*	808	X D 15 B	XI 24	13809	2 2	2 0	III 22	IV 20	20	18	16	15	
194	809	4 F	14	2810	1 2	1 0	12	10	8	8	6	6	
195	810		3	811	1	I 30	1	III 30	IV 29	V 28	VI 27	VII 26	VIII 25
196*	811	IX 23 C	X 23	XI 21	XII 21	812 I 19	II 18	18	17	16	15	14	13
197	812	12 A	12	1 0 X	1 0 XI	1 8 13 8	7	8	7	6	5	4	3
198*	813	1 E	1	3 0	2 9 19	XII 2 8	814 I 27	II 25	III 27	IV 25	V 25	VI 23	VII 23
199	814	VIII 22 C	IX 21	2 0 9	8	1 8 7	815 17	15	17	15	15	13	13
200	815	11 G	10				816 6	4	5	3	3	1	1
201*	816	VII 30	VIII 29	17	X 27	XI	XII 25	817 I 23	II 22	III 23	IV 22	V 21	VI 20
202	817	D 20 B	1 9 8	6	6	2 5	15	13	12	13	12	11	10
203	818	9 F VI	V I I	VIII 26	IX 25	1 5 4	4	819 2	1	2	2	IV 30	V 30
204*	819	28 C	2 8 1 7	15	14	X 2 4	XI 23	XII 22	820 I 21	II 19	III 20	18	18
205	820	17 A				1 3	12	11	821 10	8	10	8	8
206*	821	6 t h	VI 26	V I I	V I I I	2 IX 22 11	XI 30	XII 30	822 I 25	II 27	III 28	IV 27	
207	822	V 27 C 16	15	2 5	2 4 1 3	VIII 30 20	X 22	20	823 18	17	18	17	17
208	823	G	3	1 4 2	1 V I I		11	9	824 7	6	6	5	5
209*	824	4 D	V 24	VI 22	2 2	9 V I I	IX 29	X 28	XI 27	XII 26	825 I 25	II 23	III 25
210	825	IV 24 B				2 9 1 8	19	18	17	16	826 15	13	15
211	826	1 3 F 2 C	2 IV	V 3 1	3 0 1 9	VI 26	8	7	6	5	827 4	2	4
212*	827	III 22	21 10	2 0	8		VIII 28	IX 26	X 26	XI 24	828 I 22	II 21	
213	828	A 11 E	III	9	V 28		17	15	15	13	13	11	10
214	829	II 2 8 B	3 0	IV 28			6	4	4	2	829 XII 31	830 I 30	
215*	830				18		VII 26	VIII 24	IX 23	X 22	XI 21	20	831 19
216	831	18 G 7 D	2 0 8	18	6		16	14	13	12	11	10	832 9
217*	832	I 27 B	2 6	III 27	15	V	4	2	1	IX 30	X 30	xi	XII 28
218	833	16 F	1 5	16	4	2 5	VI 24	VII 23	VIII 22	20	20	18	18
219	834	5 C	4	5		1 4	13	12	11	9	9	7	7
220*	835					3	2		VII 31	VIII 29	IX 28	X 27	XI 26

Hijra years	'to' e (g> 2y>	1 Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shall n	9 Ramadhan	10 Shavrwal	11 Dju-l-kaile I	12 Dju-l-hidje
221	835	XII 26 A	836 I 25	II 23	III 24	IV 22	V 22	VI 20	Vi :20	VIII 18	IX 17	\ 16	xi
222	836	14 E	837 13	11	13	11	11	9	9	9	6		.t
223*	837	3 B	838 2	I 31	2	III 31	IV 30	V 29	VI 28	VII 27	VIII 26	1.X 2.1	X 24
224	838	XI 23 G	XII 23	839 I 21	II 20	21	20	19	18	17	16	14	1.1
225	839	12 D	12	840 10	9	9	8	7	6		4	2	
226*	840	X 31 A	XI 30	XII 29	841 I 28	II 26	III 28		IV 26	VI 24	VII 24	VIII 22	IX 21
227	841	21 F	20	19	842 18	16	18	16	16	14	14	12	11
228*	842	10 C	9	8	843 7	5	7	5	5	3	3	1	VIII 31
229	843	IX 30 A	X 30	XI 28	XII 28	844 126	II 25	III 25	I) 24	V 23	VI 2'2	VII 21	20
230	844	18 E	18	16	16	845 14	13	14	13	12	11	10	9
231*	845	7 B	7	5	5	846 3	2	3	2	1	V 31	VI 29	VII 29
X3	2846	VIII 28 G	IX 27	X 26	XI 25	XII 24	847 I 23	II 21	II I 23	IV 21	21	19	19
233	847	17 D	16	15	14	13	848 12	10	11	9	9	7	7
23.1*	848	5 A	4	3	2	1	XII 31	849 I 29	I I 28	III 29	IV 28	V 27	VI 26
235	849	VII 26 F	VIII 25	IX 23	X 23	XI 21	21	850 19	18	19	18	17	16
236*	850	15 C	14	12	12	10	851 10	8	7	8	7	6	5
-237	851	5 A	4	2	2	X 31	XI 30	XII 29	852 I 28	II 26	1.11 27	IV 25	V 25
*238	852	VI 23 E	VII 23	VIII 21	IX 20	19	18	17	853 16	14	16	14	14
-239*	853	12 B	12	10	9	8	7	6	854 5	3	5	3	3
-2854	2 G		2	VII 31	VIII 30	IX 28	X 28	XI 26	xi I 28	855 I 24	II 23	III 24	IV 23
241	855	V 22 D	VI 21	20	19	17	17	15	15	856 13	12	12	11
212*	856	10 A	9	8	7	5	5	3	3	857 1	1	1	III 31
213	857	IV 30 F	V 30	VI 28	VII 28	VIII 26	IX 25	X 24	X 123	XII 22	858 I 21	II 19	8
1:1	858	19 C	19	17	17	15	14	13	12	859 11	10	10	
215*	859	8 G	8	6	6	4	3	2		XI 30	XII 30	860 I 28	I
246	860	III 28 E	IV 27	V 26	VI 25	VII 24	VIII 23		IX 21	21	19	19	16
247*	861	17 B	16	15	14	13	12	10	10	8	8	6	
248	862	7 G	6	5	4	3	2	VIII 31	I) 30	X 29	XI 28	XII 27	863 I
249	863	II 24 D	III 26	IV 24	V 24	VI 22	VII 22	20	19	18	17	16	864
250*	864	13 A	16	14	14	12	12	10	9	8	7	6	865
251	865	2 F	4	2	2	V 31	VI 30	VII 29	Vii I 28	IX 26	X 26	XI 24	XII 2:1
252	866	I 22 C	II 21	III 22	IV 21	20	19	18	17	15	15	13	13
253*	867	11 G	10	11	10	9	8	7	6	4	-1		
2.54	868	1 E	I 31	II 29	III 30	IV 28	V 28	VI 26	Vi I 26	VIII 24	IX 23	X 22	XI 21
255	868	XII 20 B	869 I 19	17	19	17	17	15	15	13	12	11	10
256*	869	9 F	870 8	6	8	6	6	4	4	2	1	IX 30	X 30:
257	870	XI 29 D	XII 29	871 I 27	II 26	III 27	IV 26	V 25	V I 24	VII 23	VIII 22	20	20.
258*	871	18 A	18	872 16	15	15	14	13	12	11	10	8	8
259	872	7 F	7	873 5	4	5	4	3	2	1	VII 31	VIII 29	IX 28
260	873	X 27 C	XI 26	XII 25	874 I 24	II 22	III 24	IV 22	I T 22	VI 20		18	17
261*	874	16 G	15	14	875 13	11	13	11	11	9	20	7	6.
262	875	6 E	5	4	876 3	1	2	III 31	p T 30	V 29	VI 28	VII 27	VIII 26
263	876	IX 24 B	X 24	XI 22	XII 22	877 120	II 19	20	19	18	17	16	15
264*	877	13 F	13	11	11	878 9	8	9	8	7	6	5	4
265	878	3 D	3	1	1	XII 30	879 I 29	II 27	II I 29	IV 27	V 27	VI 25	VII 25
266*	879	VIII 23 A	IX 22	X 21	XI 20	19	880 18	16	17	15	15	13	13
267	880	12 F	11	10	9	8	881 7	5	7	5	5	3	3
268	881	1 C	VIII 31	IX 29	X 29	XI 27	XII 27	882,125	I I 24	III 25	IV 24	V 23	VI 22
269*	882	VII 21 G	20	18	18	16	16	883 14	13	14	13	12	11
270	883	11 E	10	8	8	6	6	884 4	3	3	2		V 31
271	884	VI 29 B	VII 29	VIII 27	IX 26	X 25	XI 24	XII 23	885 I 22	II 20	III 22	IV 20	20
272*	885	18 F	18	16	15	14	13	12	886 11	9	11	9	9
273	886	8 D	8	6	5	4	3	2	887	I 30	II 30	III 30	IV 29
274	887	V 28 A	VI 27	VII 26	VIII 25	IX 23	X 23	XI 21	xi I 21	888 I 19	• II 18	18	17
275*	888	16 E	15	14	13	11	11	9	9	889 7	6		6

	yo u	Moharrem	Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shaban	9 Ramadhan	10 Shawwal	11 Dju-I-kade	12 Dju-I hidje	
276 177*	889V 890 891 892	6 C IV 25 15 E 3B	VI V 25 15 3	VII VI 23 13 1	VIII VII 23 13 1	IX 1 VIII 21 11 VII 30	X IX 20 10 VIII 29	X 30 19 9 IX 27	XI 29 18 8 X 27	XII 28 17 891 7892	I 27 16 6 XII 25	II 25 14 4 I 23	III 27 16 4 II 22	
280*	893	f	IV 22	V 21	VI 20	19	18	16	16	14	14	894	12	11
281 282 283*	894 895 896II	13 D 2A 19 E	12 IV 30 III 20	11 V 30 18	10 V 30 18	9 VI 28 16	8 VII 28 16	6 VIII 26 14	6 IX 25 13	4 X 24 12	4895 XI 23 11	2896 XII 22 10897	896 I 21 9	2897 XII 30 19
284 285 286*	897 898 899	c 128 G 17 D	10 II 27 16	8 III 28 17	8 IV 27 16	6 V 26 15	6 VI 25 14	4 VII 24 13	3 VIII 23 12	2 IX 21 10	1 X 21 8	XI 30 19	XII 30 19	8
287 288*	900 900	B XII 26 F	6 I 25	6 II 23	5 III 25	4 IV 23	3 V 23	2 VI 21	1 VII 21	VIII 30 19	IX 29 18	X 28 17	XI 27 16	8
289 290	90 902	16 D 5 A	15 90-2 4	13 903	15 2	13 4	13 2	11 V31	9 VI 30	8 VII 29	7 VIII 28	6 IX 26	5 X 26	4
291* 292 293 294*	903 904 905 906	XI 24 E 13C 2G X 22 D	XII 24 13 2 XI 21	904 905 XII 31 20	I 22 11 906 19	II 21 10 I 30 19	III 21 11 II 28 17	IV 20 10 III 30 19	19 9 IV 28 17	18 8 V 28 17	17 7 VI 26 15	16 6 VII 26 15	14 4 VIII 24 13	12 1
295 296*	907 908	12B	11 X 30	10 XI 28	908 XII 28	9 18	7 909 16	8 II 25 15	6 III 26 16	4 IV 25 15	4 V24 14	2 VI 23 13	1 VII 22 12	1
297 298 299*	909 910 911	20 D 9 A VIII 29 E	9 X 28	7 X 27	7911 XI 26	5 XII 25	4 912 I24	5 II 22	4 III 23	3 IV 21	2 V21	1 VI 19	1 VII 31	1
300 301 302*	912 913 914	18 C 7G VII 27 D	17 6 VIII 26	16 5 IX 24	15 4 X 24	14913 XI 22	13 2 XII 22	11 I 31 915 I 20	13 2 II 19	11 III 31 20	11 IV 30 19	9 V29 18	7 VI 28 17	6
301 303*	916 917	5F VI 24 C	4 VII 24	2 VIII 22	2 IX 21	X 31 20	XI 30 19	XII 29 18	917 I 28	918 17	II 26 15	III 28 17	IV 26 15	V 26 15
306 307*	918 919	14 A 3rd	14 3	12 1	11 VIII 31	10 IX 29	9 X 29	8919 XI 27	7 XII 27	5 920 I 25	7 II 24	5 III 24	5 IV 23	5
308 309 310*	920 921 922	V 23 C 12G 1D	VI 22 11 V 31	VII 21 10 VI 29	20 9 VII 29	18 7 VIII 27	18 7 IX 26	16 5 X 25	17 5 XI 24	16921 5922	14 3 XII 23	13 2 I 22	12 3 II 20	12 1
311 312 313*	923 924 925	IV 21 B 9F III 29 C	21 9 IV 28	19 7 V 27	19 7 VI 26	17 5 VII 25	16 4 VIII 24	15 3 IX 22	14 2 X 22	13924 1 XI 20	12 31925 20	10 12926 8	9 I29 18	9
314 315 316*	926 927 928	19A 8th I 125B	18 7 III 26	17 6 IV 24	16 5 V 24	15 4 VI 22	14 3 VII 22	12 1 VIII 20	12 1 IX 19	10927 X 30	10 XI 29	9 XII 28	8 928	7
317 318*	929 930	14G 3d	16 5	14 3	14 3	12 1	12 1	10 VII 30	9 VIII 29	8 IX 27	7 X 27	6930 XI 25	5 XII 25	5
319 320	931 932	I 24 B 13F	II 23 12	III 24 12	IV 23 11	V 22 10	VI 21 9	VII 20 8	IX 19 7	18 5	17 4	16929 6930	15 3	15
321* 322 323	933 933 934	1 C XII 22A 11 E	I 31 934 10	1 II 19	III 31 21	IV 29 19	V 29 19	VI 27 17	VII 27 17	VIII 25 15	IX 24 14	X 23 13	XI 22 12	1
324* 325	935 936	XI 30B 19G	XII 30 19	936 937	I 28 17	II 27 16	III 27 17	IV 26 16	V 25 15	VI 24 14	VII 23 13	VIII 22 12	IX 20 10	X 20 10
326* 327 328	937 938 939	8D X 29B 18F	8938 XI 28	6 XII 27	5 939 I 26	6 II 24	5 III 26	4941 IV 21	3 No 24	2 VI 22	1 VII 22	VIII 30 20	IX 29 19	7
329* 330	940 941	6C IX 26A	5 X 26	4941 XI 24	3 XII 24	1 942 I 22	1 II 21	3 111 22	1 IV 21	V 30 20	VI 29 19	VII 28 18	VIII 27 17	7

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331	942 IX 15 E	X 15	XI 13	XII 13	943 I 11	II 10	III 11	IV 10	V 9	VI 8	VII 7	VIII 6
332*	943 4 B	4	2	2	XII 31	944 I 30	II 28	III 29	IV 27	V 27	VI 25	VII 24
333	944 VIII 24 G	IX 23	X 22	XI 21	20	945 19	17	19	17	17	15	I 1
334	945 13 D	12	11	10	946 8	8	6	8	6	6	4	I 1
335*	946 2 A	1	IX 30	X 30	XI 28	XII 28	947 I 26	II 25	III 26	IV 25	V 24	VI 23
336	947 VII 23 F	VIII 22	20	20	18	18	948 16	15	15	14	13	I 1
337*	948 11 C	10	8	8	6	6	949 4	3	4	3	2	I 1
338	949 1 A	VII 31	VIII 29	IX 28	X 27	XI 26	XII 25	950 I 24	II 22	III 24	IV 22	V 21
339	950 VI 20 E	20	18	17	16	15	14	951 13	11	13	11	I 1
340*	951 9 B	9	7	6	5	4	3	952 2	I 31	1	III 30	IV 21
341	952 V 29 G	VI 28	VII 27	VIII 26	IX 24	X 24	XI 22	XII 22	953 I 20	II 19	20	• 1
342	953 18 D	17	16	15	13	13	11	11	954 9	8	9	you
343*	954 7 A	6	5	4	2	2	X 31	XI 30	XII 29	955 I 28	II 26	III 21
344	955 IV 27 F	V 27	VI 25	VII 25	VIII 23	IX 22	21	20	19	956 18	16	I 1
345	956 15 C	15	13	13	11	10	9	8	7	957 6	4	(
346*	957 4 G	4	2	2	VII 31	VIII 30	IX 28	X 28	XI 26	XII 26	958 I 24	I 12
347	958 III 25 E	IV 24	V 23	VI 22	21	20	18	18	16	959 14	14	I 1
348*	959 14 B	13	12	11	10	9	7	7	5	960 3	3	•
349	960 3 G	2	1	V 31	VI 29	VII 29	VIII 27	IX 26	X 25	XI 24	XII 23	961 I 2
350	961 II 20 D	III 22	IV 20	20	18	18	16	15	14	13	12	962 I 1
351*	962 9 A	11	9	9	7	7	5	4	3	2	1	. XII 3
352	963 I 30 F	1	III 30	IV 29	V 28	VI 27	VII 26	VIII 25	IX 23	X 23	XI 21	21
353	964 19 C	II 18	18	17	16	15	14	13	he	11	11	9
354*	965 7 G	6	7	6	5	4	3	2	VIII 31	IX 30	X 29	12
355	965 XII 28 E	966 I 27	II 25	III 27	IV 25	V 25	VI 23	VII 23	21	20	19	11
356*	966 17 B	967 16	14	16	14	14	12	12	10	9	8	,
357	967 7 G	968 6	4	5	3	3	1	1	VII 30	VIII 29	IX 27	X 26
358	968 XI 25 D	XII 25	969 I 23	II 22	III 23	IV 22	V 21	VI 20	19	18	16	X 25 you 115 35

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•	٢٨	١ Moharrem	Safar	Rebi I	Rebi II	Djumada I	Djumada II	Redjeh	Shaban	Ramadhan	Shawwal	Dju-l-kade	Dju-l-
386*	996	I 25 G	II 24	III 24	IV 23	V	VI 21	VII	V I I I	IX 17	X 17	XI 15	XII 15
387	997	14 E	13	14	13	2 2	1 1	20 10	1 9 9	7	7	5	5
388	998	3 B	2	3	2	1 2 1	V 3 1	VI 29	V I I	VIII 27	IX 26 X	25	XI 24
389*	998 XII 23 F		999 I 22	II 20	III 22	I V	20	18	2 9	16	15	14	13
390	999	13 D	1000 12	10	11	2 0 9	9	7	1 8 7	5	4	3	2
391	1000	1 A	XII 31	1001 I 29	II 28	III	IV 28	V 27	V I	VII 25	VIII 24	IX 22	X 22
392*	1001 XI 20 E		2 0	1002 18	17 7	29 18	17	16 6	2 6	14	13	11	11
393	1002	10 C	101003 8	1004 I	10 0 4	8 II	7	IV	1 5 5	.1	3	1	1
394	1003 X 30 G		XI 29	XII 28	27	25	III 26	24	V	VI 22	VII 22	VIII 20	IX 19
395*	1004	18 D	17	16	10 0 5	.13	15	13	2 4	11	11	9	8
396	1005	8B	7	6	1006	5	3	5	-3	3	1	1	VII 30
397*	1006 IX 27 F		X 27	XI 25	XII 25	1007 I 23	II 22	III	IV 22	V21	VI 20	19	VIII 29
398	1007	17 D	17	15	15	1008 13	12	23 12	11	10	9	8	7
399	1008	5 A	5	3	3	1009 1	131	1	III 31	IV 29	V29	VI 27	VII 27
400*	1009 VIII 25 E		IX 24	X 23	XI 22	XII 21	1010 I 20	II 18	2 0	18	18	16	16
401	1010	15 C	14	13	12	11 1011	10	8	1 0 1 1	8	8	6	6
402	1011	4 G	3	2	1	X I	XII 30	1012 I 28	2 7	III 27	IV 26	V25	V124
103*	1012 VII 23 D		VIII 22	IX 20	X 20	3 0	18	1013 16	1 5 5	16	15	14	13
404	1013	13 B	12	10	10	18 8	8	1014 6	1 0 1 5	6	5	4	3
405	1014	2F	1	VIII 30	IX 29	X 28	XI 27	XII 26	I 2 5	I 23	III 25 IV	23	V 23
406*	1015 VI 21 C		V I I	19	18	17 6 IX	16	15 4 XI	1016 14	12	13	11	I 1
407	1016	10 A	2 1	10	7	25 15 4	5	23 13 2	1 0 1 7 3	1	3	1	1
* 108	1017 V. 30 E		V I	VII 28	V I I I		X 25		X I I	1018 I 21	II 20 III	21	IV 20
*	1018	20 C	2 9	19	18	VIII 23 13	15		2 3 1 3	1019 I 11	10	11	10
109	1019	9 G	8	7	1 7 6	2 VII 22	4		2	XII 31	1020 I 30 II	28 III	29
410	1020 IV 27 D		V 27	VI 25	VII 25	I X 2 2	X 21		X I	19	1021 18	16	18
411*	1021	17 B	17	15	15	VI 30	1 2 1		20	9	1022	8	
412	1022	6E	6	4	4	20	V I I I	IX	10 X	6	8		
413	1023 III 26 C		IV 25	V 24	VI 23	9	2 1	30	30	XI 28	XII 28	1023 I 26	II 25
414*	1024	15 A	14	13	12	V 28	10	19 8	8	17	17	1024 15	14
415	1025	4 E	3	1	1		VII 30	VIII 28 18	I X	6	6	1025 4	3
416*	1026 II 22 C		III 24	IV 22	V 22		20	7 VII 26	2 7	X 26	XI 25	XII 24	1026 I 23
417	1027	11 G	13	11	11		9	16	1 7 6	16	15	14	1027 13
418	1028	131 D	1	III 30	IV 29		VI 27		V I I I	5	4	3	
419*	1029	20 B	II 19	20	19		17		2 5	1028	2		
420									1 5	IX 23	X 23	XI 21	XII 21
									4	13	13	11	11
421	1030	9 F	8	9	8	7 I V	6	5					
422*	1030 XII 29 C		1031 I 28	II 26	III 28	2 6	V 26	VI 24	VII				
423	1031	19 A	1032 18	16	17	1 5 4	15	13	24	2	2	X 31 XI	30
423	1032	7 E	1033 6	4	6	III	4	2	13 2	VIII 22	IX 21	20	19
424	1033 XI 26 B		XII 26	1034 I 24	II 23	2 4	IV 23	V 22	VI 21	11	10	9	8
426	1034	16 G	16	1035 14	13	1 4 2	13	12	11	20	19	17	17
127	1035	5 D	5	1036 3	2	I 1		IV 30	V				
*	1036 X 25B		XI 24	XII 23	1037 I 22	2 0 9	III 22	20o	30	10	9	7	7
428	1037	14 F	13	12	1038 11	1 0 3	11		20 9	VI 28	VII 28 VIII	26	IX 25
129	1038	3 C	2	I	XII 31	9	I	II 28	III 29	18	18	16	15
430*						2 9			IV 28	7	7	5	4
431	1039 IX 23 A		X 23	X I	21		18	1 8	17 6 III	V 27	VI 26	VII 25	VIII 24
432	1040	11 E	11	2 1 9	9	1040 19	6	7 11	26 16 4				
433*	1041 VIII 31		IX 30	X	XI 28	10 4 1 7	1042 I 26	2 4		16	15	14	13
434	1042	21 G	20	2 9	18	X I I	1043 16	1 4	II 21	5	4	3	2
435	1043	10 D	9	1 9 8	7	2 7 1 7	1044	5	3	IV 24	V 24	VI 22	VII 22
436*	1044 VII 29 A		VIII 28	I X	X 26	X I	XII 24	1045 I 22	1 0 4 8 1	2	2	V31 VI	30
437	1045	19 F	18 7 VII	2 6	16	2 4	14	1046 12	2 1				
438*	1046	8 C	28 16	1 6 5	5	1 4 3	3	1047 1	1049 9	III 22	IV 21	20	19
439	1047 VI 28 A		V I I I	IX 25	13	X	XI 23	XII 22		12	11	10	9
440	1048	16 E		2 6		2 4	11	10		1	III 31	IV 29 V	29

		1 Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Radjah	8 Shaban	9 Ramadhan	10 Shawwal	11 Dju-1-kade	12 Dju-1-hijap
441*	1049	VI 5 B	VIII	3	IX 2	X 1	X 31	XI 29	XII 29	1050 I 27	II 26	III 27	IV 26
4.12	1050	V 26 G		VII 21	VIII 23	IX 21	21	19	19	1051 17	16	17	16
443	1051	15 D	I-1	13	12	10	10	8	8	1052 6	5	5	5
444*	1052	3 A		1	VII 31	VIII 29	IX 28	X 27	XI 26	XII 25	1053 I 24	II 22	III 2-1
445	1053	IV 23 F	V 23	VI 21	21	19	18	17	16	15	1054 14	12	14
446*	1054	12 C	12	10	10	8	7	6	5	4	1055 3	1	3
447	1055	2 A		V 31	VI 30	VII 29	VIII 28	IX 26	X 26	XI 24	XII 24	1056 I 22	II 21
448	1056	III 21 E	IV 20.	19	18	17	16	14	14	12	1057 10	10	10
449*	1057	10 B	91	87	87	6	5	3	3	1	1	XII 30	1058 I 29
450	1058	II 28 G	III 30	IV 28	V 28!	VI 26	VII 26	VIII 24	IX 23	X 22	XI 21	20	1059 19
451	1059	17 D	19;	17	17	15	15	13	12	11	10	9	1060 8
452*	1060	6 A		5	5	3	3		VIII 31	IX 29	X 29	XI 27	XII 27
453	1061	I 26 F	11 25	III 26	IV 25'	V 24	VI 23	VII 22	21	19	19	17	17
454	1062	150	11	15	11	13	12	11	10	8	8	6	6
457)*	1063	4 G	3	4	3	2		VI 30	VII 30	VIII 28	IX 27	X 26	XI 25
456	1063	XII 25 E	1064 I 21	II 22	III 23	IV 21	V 21	19	19	17	16	15	14
457*	1064	13 13	1065 12	10	12	10	10	8	8	6	5	4	3
458	1065	3 G	1066 2	I 31	2	III 31	IV 30	V 29	VI 28	VII 27	VIII 26	IX 24	X 24
459	1066	XI 22 D	XII 22, 1067 I 20	II 19	20	19	18	17	16	15	13	13	13
460*	1,067	I 1. A	11	1068 98	8	7	6	5	4	3			
461	1068	X 31 F	NI 30	XII 29	1069 I 28	II 26	III 28	IV 26	V 26	VI 24	VII 24	VIII 22	IX 21
462	1069	20 C	19	18	1070 17	15	17	15	15	13	13	11	10
463*	1070	9 G		7	1071 I;	4	6	4	4	2	2	VII 31	VIII 30
464	1071	•IN 29 E	X 29 I	XI 27	XII 27 1072 I 25	II 24	III 24	IV 23	V 22	VI 21	20	19	19
465	1072	17 B	17 ¹	15	1073 F	13	12	13	12	11	10	9	8
466*	1073	6 F		41, 1074	2	1	2	1	1	IV 30	V 30	VI 28	VII 28
467	1074	VIII 27 D	TX 26	X 25	12.1	XII 23	1075 I 22	II 20	III 22	20	18	18	18
468*	1075	16 A	15 ¹	14	13	12	1076 11	9	10	8	20	6	6
469	1076	5 F	41	3		1	XII 31	1077 I 29	II 28	III 29	IV 28	V 27	VI 26
470	1077	VII 25 G	VIII 24!	IX 22	X 22	XI 20	20	1078 18	17	18	17	16	15
471*	1078	14 G	13'	11	11	9	9	1079 7	6	7	6	5	4
472	1079	4 E		1		X 30	XI 29	XII 28	1080 I 27	II 25	III 26	IV 24	V 24
473	1080	VI 22 B	VII 22	VIII 20	IX 10	18	17	16	1081 15	13	15	13	13
474*	1081	11 F	11	9	11	7	6	5	1082 4	2	4	2	2
475	1082	1 D		VII 30	VIII 29	IX 27	X 27	XI 25	XII 25	1083 I 23	II 22	III 23	IV 22
476*	1083	V 21 A	VI 20	19	18;	16	16	14	14	1084 12	11	11	10
477	1084	10 E	9	8	7	5	5	3	3	1085 1	1	1	III 31
478	1085	IV 29 G	V:29	VI 27	VII 27	VIII 25	IX 24	X 23	XI 22	XII 21	1086 I 20	II 18	20
479*	1,086	18 G	18	16	161	14	13	12	11	10	1087 9	7	9
480	1087	8 E	8	6		4	3	2	1	XI 30	XII 30	1088 I 28	II 27
481	1088	III 27 B	IV 26	V 25	VI 24	VII 23	VIII 22	IX 20	X 20	18	18	1089 16	15
482*	1089	16 F	15	14	13	12	11	9	9	7	7	1090 5	5
483	1090	6 D	5	4	3	2	1	VIII 30	IX 29	X 28	XI 27	XII 26	1091 I 25
484	1091	II 23 A	III 25	IV 23	V 23	VI 21	VII 21	19	18	17	16	15	1092 14
485*	1092	12 E	13	11	11	9	9	7	6	5	4	3	1093 2
486	1093	1 C	3	1		V 30	VI 29	VII 28	VIII 27	IX 25	X 25	XI 23	XII 23
487*	1094	121 G	II 20	III 21	IV 20	19	18	17	16	14	14	12	12
488	1095	11 E	10	11	10	9	8	7	6	4	4	2	2
489	1095	XII 31 B	1096 I 30	II 28	III 29	IV 27	V 27	VI 25	VII 25	VIII 23	IX 22	X 21	XI 20
490*	1096	19 F	1097 18	16	18	16	16	14	14	12	11	10	9
491	1097	9 D	1098 8	6	8	6	6	4	4	2	2	IX 30	X 30
492	1098	XI 28 A	XII 28	1099 I 26	II 25	III 26	IV 25	V 24	VI 23	VII 22	VIII 21	IX 30	X 30
193*	1099	17 E	17	1100 15	14	14	13	12	11	10	9	7	19
194	1100	6	6	1101 4	3	4	3	2	1	VI 30	VII 30	VIII 28	IX 27
195	1101	X 26 G	XI 25	XII 24	1102 I 23	H 21	III 23	IV 21	V 21	19	19	17	16

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	1 Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shaban	9 ra madhan	10 Shawwal	11. Dju-l-kade	12 Dju-l-Iddje
551	1156 II 25 G	III 26	IV 24	V 24	VI 22	VII 22	VIII 20	IX 19	X 18	XI 17	XII 16	1157 115
552	1157 13 D	15	13	13	11	11	9	8	7	6	5	1158 4
553*	1158 2A	4	2	2	V 31	VI 30	VII 29	VIII 28	IX 26	X 26	XI 2-1	XII 24
554	1159 I 23 F	II 22	III 23	IV 22	21	20	19	18	16	16	11	14
555	1160 12 C	11	11	10	9	8	7	6	4			
556*	1160 XII 31 G	1161 I 30	II 28	III 30	IV 28	V 28	VI 26	VII 26	III 24	I	X 22	XI 21
557	1161 21 E	1162 20	18	20	18	18	16	16	14	13	12	11
558*	1162 10 B	1163 9	7	9	7	7	5	5	3	•>	1	X 31
559	1163 XI 30 G	XII 30	1164 128	II 27	III 27	IV 26	V 25	VI 24	VII 23	VIII 22	IX 20	20
560	1164 18 D	18	1165 16	15	16	15	14	13	12	11	9	9
561*	1165 7A	7	1166 5	4	5	4	3	2		VII 31	VIII 29	IX 28
562	1166 X 28 F	XI 27	XII 26	1167 I 25	II 23	III 25	IV 23	V 23	VI 21	VII 21	VIII 19	18
563	1167 17 C	16	15	1168 14	12	13	11	11	9	9	7	6
564*	1168 5 G	4	3	1169 2	I 31	II 31	III 31	IV 30	• V 29	VI 28	VII 27	VIII 26
565	1169 IX 25 E	X 25	XI 23	XII 23	1170 I 21	II 20	21	20	19	18	17	16
566*	1170 14 B	14	12	12	1171 10	9	10	9	8	7	6	5
567	1171 4 G	4	2	2	XII 31	1172 I 30	II 28	III 29	IV 27	V 27	VI 25	VII 25
568	1172 VIII 23 D	IX 22	X 21	XI 20	19	1173 18	16	18	16	16	14	14
569*	1173 12 A	11	10	9	8	1174 7	5	7	5	5	3	3
570	1174 2 F	1	IX 30	X 30	XI 28	XII 28	1175 I 26	II 25	III 26	IV 25	V	VI 23
571	1175 VII 22 C	VIII 21	19	19	17	17	1176 15	14	14	13	12	11
572*	1176 10 G	9	7	7	5	5	1177 3	2	2	3	2	V 31
573	1177 VI 30 E	VII 30	VIII 28	IX 27	X 26	XI 25	XII 24	1178 I 23	II 21	III 23	IV 21	21
574	1178 19 B	19	17	16	15	14	13	1179 12	10	12	10	10
575*	1179 8 F	8	6	5	4	3	2	1180 1	I 30	II 29	III 29	IV 28
576	1180 V 28 D	VI 27	VII 26	VIII 25	IX 23	X 23	XI 21	XII 21	Re 11	11 9	18	19
577*	1181 17 A	16	15	14	12	12	10	10	11	2 8	7	8
578	1182 7E	6	5	4	2	2	X 31	XI 30	XII 29	183 I 28	II 26	III 28
579	1183 IV 26 C	V 26	VI 24	VII 24	VIII 22	IX 21	20	19	18	184 17	15	16
580*	1184 14 G	14	12	12	10	9	8	7	6	6185 5	3	5
581	1185 4 E	4	2	2	VII 31	VIII 30	IX 28	X 28	XI 26	XII 26	186 I 24	II 23
582	1186 III 24 B	IV 23	V 22	VI 21	20	19	17	17	15	15	187 13	12
583*	1187 13E	12	11	10	9	8	6	6	4	4188	2	1
584	1188 2 D	1	IV 30	V 30	VI 28	VII 28	VIII 26	IX 25	X 24	XI 23	XII 22	1189 I 21
585	1189 II 19 A	III 21	19	19	17	17	•	14	13	12	11	1190 10
586*	1190 8E	10	8	8	6	6	4	3	2	1	XI 20	XII 30
587	1191 I 29 C	II 28	III 29	IV 28	V 27	VI 26	VII 25	VIII 24	IX 22	X 22	30	20
588*	1192 18 G	17	17	16	15	14	13	12	10	10	8	8
589	1193 7TH	6	7	6	5	4	3	2	III 31	IX 30	X 29	XI 28
590	1193 XII 27 B	1194 I 26	II 24	III 26	IV 24	V 24	VI 22	VII 22	20	19	18	17
591*	1194 16 F	1195 15	13	15	13	13	11	11	9	8	7	6
592	1195 6 D	1196 5	3	4	2	2	V 31	VI 30	VII 29	VIII 28	IX 26	X 26
593	1196 XI 24 A	XII 24	1197 I 22	II 21	III 22	IV 21	20	19	18	17	15	15
594*	1197 13 E	13	1198 11	10	11	10	9	8	7	6	4	4
595	1198 3 C	3	1199 1	I 31	I	III 31	IV 29	V 29	VI 27	VII 27	VIII 25	IX 24
596*	1199 X 23 G	XI 22	XII 21	1200 I 20	II 18	19	17	17	15	15	13	12
597	1200 12 E	11	10	1201 9	7	9	7	7	5	5	3	2
598	1201 1 B	X 31	XI 29	XII 29	1202 I 27	II 26	III 27	IV 26	V 25	VI 24	VII 23	VIII 22
599*	1202 IX 20 F	20	18	18	1203 16	15	16	15	14	13	12	11
600	1203 10 D	10	8	8	1204 6	5	5	4	3	2		VII 31
601	1204 VIII 29 A	IX 28	X 27	XI 26	XII 25	1205 I 24	II 22	III 24	IV 22	V 22	VI 20	20
602*	1205 18 E	17	16	15	14	1206 13	11	13	11	11	9	9
603	1206 8 C	7	6	5	4	1207 3	1	3			V 30	VI 29
604	1207 VII 28 G	VIII 27	IX 25	X 25	XI 23	XII 23	1208 I 21	II 20	III 20	IV 19	18	17
605*	1208 16 D	15	13	13	11	11	1209 9	8	9	8	7	6

HEGIRA AND CHRISTIAN ERA

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Hegira years	1 w2.	2 Safar	3 Rebi I	4 Rebi II	5 Djurnada	6 Redjeb	7 Shaban	8 Ramadhan	9 Shawwal	10 Dju-l-kade	11 Dju-l-hidje	
606	1209 VII 6B	VIII 5	IX 3	X 3	xi 1	XI 1	XII 30	1210 I 29	II 27	III 29	IV 27	V 27
607	1210 VI 25 F	VII 25	VIII 23	IX 22	X 2	XI 19	XII 18	1211 I 18	II 16	III 18	IV 16	V 16
608	1211 15 D	15	13	12	1	10	9	1212 I 8	II 6	III 7	IV 5	V 5
609	1212 3 A	3	1	VIII 31	IX 2	X 29	XI 27	1213 I 25	II 24	III 25	IV 24	V 24
610	1213 V 23 E	VI 22	VII 21	20	1	18	16	1214 I 14	II 13	III 14	IV 13	V 13
611	1214 13 C	12	11	10	8	6	6	1215 I 4	II 3	III 4	IV 3	V 3
612	1215 2 G	1	VI 30	VII 30	VIII 2	X 27	XI 25	1216 I 23	II 21	III 22	IV 21	V 21
613*	1216 IV 20 D	V 20	18	18	1	15	14	1217 I 11	II 9	III 11	IV 9	V 9
614	1217 10 B	10	8	8	6	5	4	1218 I 1	II 1	III 2	IV 1	V 1
615	1218 III 30 F	IV 29	V 28	VI 27	VII 2	VI 25	IX 23	X 23	XI 21	1219 XII 21	1220 I 19	II 18
616*	1219 19 C	18	17	16	1	14	12	12	10	10	1220 I 8	II 7
617	1220 8 A	7	6	5	4	3	1	X 30	XI 29	1221 XII 28	1222 I 27	II 27
618*	1221 II 25 E	III 27	IV 25	V 25	VI 2	V 23	VIII 21	IX 20	18	17	1222 I 16	II 16
619	1222 15 C	17	15	15	1	13	11	10	9	8	7	1223 I 6
620	1223 4 G	6	4	4	2	2	VII 31	VIII 30	IX 28	X 28	XI 26	1224 XII 26
621*	1224 I 24 D	I 23	III 23	IV 22	V 2	VI 20	19	18	16	16	14	14
622	1225 13 B	12	13	12	1	10	9	8	6	6	4	4
623	1226 2 F	1	2	1	IV 3	V 30	VI 28	VII 28	VIII 26	IX 25	X 24	XI 23
624*	1226 XII 22 C	1227 I 21	II 19	III 21	1	19	17	17	15	14	13	12
625	1227 12 A	1228 12	9	10	8	8	6	6	4	3	2	1
626*	1228 XI 30 E	XII 30	1229 I 28	II 27	III 2	I 27	V 26	VI 25	VII 24	VIII 23	IX 21	X 21
627	1229 20 C	20	18	17	1	17	16	15	14	13	11	11
628	1230 9 G	9	7	6	5	6	5	4	3	2	VIII 31	IX 30
629*	1231 X 29 D	XI 28	XII 27	1232 I 26	II 2	I 25	IV 23	V 23	VI 21	VII 21	19	18
630	1232 18 B	17	16	15	1	15	13	13	11	11	9	8
631	1233 7 F	6	5	4	3	4	2	2	V 31	VI 30	VII 29	VIII 28
632*	1234 IX 26 C	X 26	XI 24	XII 24	1235 I 2	II 21	III 22	IV 21	20	19	18	17
633	1235 16 A	16	14	14	1236 I 1	II 11	III 11	10	9	8	7	6
634	1236 4 E	4	2	2	XII 3	I 30	II 28	III 30	IV 28	V 28	VI 26	VII 26
635*	1237 VIII 24 B	IX 23	X 22	XI 21	2	19	17	17	17	17	15	15
636	1238 14 G	13	12	11	10	9	7	9	7	7	5	5
637*	1239 3 D	2	1	X 31	XI 2	II 29	1240 I 27	II 26	III 26	IV 25	V 24	VI 23
638	1240 VII 23 B	VIII 22	IX 20	20	1	18	16	15	16	15	14	13
639	1241 12 F	11	9	9	7	7	5	4	5	4	3	Q
640*	1242 1 C	VII 31	VIII 29	IX 28	X 2	2	XII 25	1243 I 24	II 22	III 24	IV 22	V 22
641	1243 VI 21 A	29	19	18	1	16	15	14	12	13	11	11
642	1244 9 E	9	7	6	5	4	3	2	1	2	III 31	IV 30
643*	1245 V 29 B	VI 28	VII 27	VIII 26	IX 2	X 24	XI 22	XII 22	1246 I 20	II 19	20	19
644	1246 19 G	18	17	16	1	14	12	12	1247 I 10	9	10	9
G-13	1247 8 D	7	6	5	4	3	1	1	XII 30	1248 I 29	II 27	III 28
646*	1248 IV 26 A	V 26	VI 24	VII 24	VIII 2	I 21	X 20	XI 19	18	1249 I 17	15	17
G17	1249 16 F	16	14	14	1	11	10	9	8	7	5	7
61st	1250 5 C	5	3	3	2	VI 31	IX 29	X 29	XI 27	XII 27	1251 I 25	II 24
G 19	1251 III 26 A	IV 25	V 24	VI 23	VII 2	2	19	19	17	17	15	14
630	1252 14 E	13	12	11	1	9	7	7	5	5	3	2
651*	1253 3 B	2	1	V 31	VI 2	V 29	VIII 27	IX 26	X 25	XI 24	XII 23	1254 I 22
652	1254 II 21 G	III 23	IV 21	21	1	19	17	16	15	14	13	1255 I 12
653	1255 10 D	12	10	10	8	7	6	5	4	3	2	1256 I 1
654*	1256 I 30 A	II 29	III 29	IV 28	V 2	I 26	VII 25	VIII 24	IX 22	X 22	NI 20	XII 20
655	1257 19 F	18	19	18	1	16	15	14	12	12	10	10
656*	1258 8 C	7	8	7	6	5	4	3	1	1	X 30	XI 29
657	1258 XII 29 A	1259 I 28	II 26	III 28	IV 2	V 26	VI 24	VII 24	VIII 22	IX 21	20	19
658	1259 18 E	17	15	16	1	14	12	12	10	9	8	7
659*	1260 6 B	1261 5	3	5	4	3	1	1	VII 30	VIII 29	IX 27	X 27
660	1261 XI 26 G	XII 26	1262 I 24	II 23	III 23	23	V 22	VI 21	20	19	17	17

a' 5	mQ 41;5	1 Moharem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shaban	9 Ramadhan	10 Shawwal	11 Dju-l-kade	12 Dju-l-
661	1262	XI 15 D	XII 15	1263 I 13	II 12 1	III 13	IV 12	V II	VI 10	VII 9	VIII 8	IX 6	X 6
662*	1263	4 A	4	1264 2	1265 1	1	III 31	IV 29	V 29	VI 27	VII 27	VIII 25	IX 24
663	1264	X 24 F	XI 23	XII 22	21	II 19	21	19	19	17	17	15	14
664	1265	13 C	12	11	1266	8	10	8	8	6	6	4	3
665*	1266	2 G	1	XI 30	10	1267 I 28	II 27	III 28	IV 27	V 26	VI 25	VII 24	VIII 23
666	1267	IX 22 E	X 22	20	1268 18	17	17	17	16	15	14	13 2	VI
667*	1268	10 B	10	20	1269 6	5	6	6	5	4	3	22	VII 22
668	1269	VIII 31 G	I X	X 29	8	XII 1270 I 26	II 24	III 26	IV 24	V 24	22	11	VII 22
669	1270	20 D	30	18	XI 28	27 16	1271 15	13	15	13	11	30	VI 29
670*	1271	9 A	19 8	7	6	1272 4	4	2	3	1	1	1	1
671	1272	VII 29 F	VIII 28	IX 26	XI 24	XII 24	1273 I 22	II 21	III 22	IV 21	20 9	19	8
672	1273	18 C	17	15	X 26	13	13	11	10	11	10	IV 28	8
673*	1274	7 G	6	4	15	2	2	XII 31	1275 I 30	II 28	III 30	17 6	V 28
674	1275	VI 27 E	VII 27	VIII 25	4	X 23	XI 22	21	1276 20	18	19	17	17
675	1276	15 B	15	13	IX 24	11	10	9	1277 8	6	8	III 26	6
676	1277	4 F	4	2	IX 30	X 30	XI 28	XII 28	1278 I 26	II 25	11	IV 25	15
677	1278	V 25 D	VI 24	VII 23	1	20	18	18	1279 16	5	4	22	3
fi 78	1279	14 A	13	12	VIII 22	9	7	7	1280 5	4	11	III 24	1
t;79	1280	3 F	2	11	VIII 29	IX 28	X 27	XI 26	XII 25	1281 I 24	131	1284 121	1285 9
	1281	IV 22 C	V 22	VI 20	VII 31	18	17	16	15	14	13	1284 121	1285 9
681*	1282	11 G	11	9	7	VII 28	VIII 27	IX 25	X 25	XI 23	XII 23	XII 29	I 20 8
682	1283	1 E	1	V 30	9	VII 28	VIII 27	IX 25	X 25	XI 23	XII 23	XII 29	I 20 8
683	1284	III 20 B	IV 19	18	VI 29	16	15	13	13	11	11	19	1286 1
684*	1285	9 F	8	7	17	5	4	2	2	X 31	XI 30	20	1287 7
685	1286	II 27 D	III 29	IV 27	V 27	VI 25	VII 25	VIII 23	IX 22	21	20	1288 7	1289 18
686*	1287	16 A	18	16	14	14	12	11	10	9	8	1288 7	1289 18
687	1288	6 E	7	5	16	3	3	VIII 31	IX 29	X 29	XI 27	XII 27	1290 16
688	1289	I 25 C	II 24	III 25	5	V 23	VI 22	VII 21	VIII 20	18	17	16	15
689*	1290	14 G	13	14	IV 24	12	11	10	9	7	5	4	3
690	1291	4 E	3	4	13	2	1	30	VII 30	VIII 28	IX 27	X 26	XI 25
691	1291	XII 24 B	1292 I 23	II 21	IV 20	V 20	18	18	16	15	14	13	12
692*	1292	12 F	1293 11	9	III 22	9	7	7	5	4	3	2	1
693	1293	2 D	1294 1	I 30	III 30	IV 29	19	18	16	15	14	13	12
694	1294	XI 21 A	XII 21	1295 I 19	19	18	17	16	15	14	13	12	11
695*	1295	10 E	10	1296 8	II 18	7	6	5	4	3	2	1	0
696	1296	X 30 C	XI 29	XII 28	II 25	III 27	IV 25	V 25	VI 23	VII 23	21	20	19
697*	1297	19 G	18	17	1297 I 27	14	16	14	12	11	10	9	8
698	1298	9 E	8	7	1298 16	4	6	4	4	2	1	0	0
699	1299	IX 28 B	X 28	XI 26	1299 6	1300 I 24	II 23	IV 22	V 21	VI 20	19	18	17
700*	1300	16 F	16	14	XII 26	1301 12	11	III 23	11	10	9	8	7
701	1301	6 D	6	4	1302 2	1	2	2	1	0	0	0	0
702	1302	1302	I X 2 5	X 24	4	XII 22	1303 I 21	II 19	III 21	IV 30	V 30	VI 28	VII 28
703*	VIII 26 A	1 4 3	13	XI 23	11	1304 10	1305 I 28	II 27	III 28	IV 27	V 26	VI 25	VII 25
704	1303	15 E	V I I I	2	12	XI 30	XII 30	1306 17	16	15	14	13	12
705	1304	4 C	2 3	IX 21	1	19	19	18	17	16	15	14	13
706*	1305	VII 24 G	12	10	X 21	8	8	5	6	5	4	3	2
707	1306	13 D	2	VIII 31	10	X 29	1307 6	1308 126	II 24	III 24	IV 23	V 23	22
708*	1307	3 B	VII 21	19	IX 30	17	XI 28	1309 14	12	11	10	9	8
709	1308	VI 21 F	11	9	18	7	16	15	14	13	12	11	10
710	1309	11 D	VI 30	VII 29	VIII 28	IX 26	6	XII 24	1311 I 22	II 21	III 22	IV 21	30
711*	1310	V 31 A	19	18	15	4	15	13	12	11	10	9	8
712	1311	20 E	8	7	17	4	15	13	12	11	10	9	8
713	1312	9 C	V 28	VI 26	6	VIII 24	4	2	XI 21	20	19	18	17
714*	1313	IV 28 G	17	15	VII 26	13	IX 23	X 22	10	9	8	7	6
715	1314	17 D	7	15	15	3	12	11	X 31	XI 29	XII 29	1316 I 27	11 26

	4d*1 Wb 12	Moharem	Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	Redjeb	8 Shaban	Hamadhan	10 Shawwal	11 Dju-l-kade	12 Dju-l-hidje
d	1316	III 26 F	IV 25	V 24	VI 23	VII 22	VIII 21	IX 19	X 19	XI 18	XII 17	I 15	II 14
716*	1317	16 D	15	14	13	12	11	9	9	1 7 7	17 7	1318 5	4
717	1318	5A	4	3	2	- 1	VII 31	VIII 29	IX 28	X 2 7	XI 2 6	XII 25	1319 I 24
718	1319	II 22 E-	III 24	IV 22	V 22	VI 20	2 0	18	17	1 6	2 6	14 13	20 13
719	1320	12 C	13	11	11	9	9	7	6	5	15 4	31321	2
720	1321	I 31 G	2	III 31	IV 30	V 29	VI 28	VII 27	VIII 26	IX 24	X 24	XI 22	XII 22
721	1322	20 D	II 19 9	20	19	18	17	16	15	13	2 4	2 2	11
722*	1323	10 B	1324 1	10	9	8	7	16	5	3	1 3 3	1 1 1	1
723	1323	XII 30 F	29	II 27	III 28	IV 26	V 26	VI 24	VII 24	VIII 22	IX 21	X 20	XI 19
724	1324	18 C	1325 17	15	17	15	15	13	13	11	2 1	2 0 9	8
725	1325	8 A	17	5	7	5	5	3	3		1 0	IX 29	X 29
726	1326	XI 27 E	1326 7	1327 I 25	II 24	III 25	IV 24	V 23	VI 22	VII 21	VIII 31	IX 27	X 26
727	1327	17 C	XII 27	1328 15	14	14	13	2 3	1 1	10	20	VIII 27	IX 26
728	1328	5 G	17	1329 3	2	3	2	1 2	V 3 1	VI 29	9	IX 26	15
729	1329	X 25 D	5	XII 23	1330 I 22	II 20	III 22	1	20	18	VII 29	16	15
730*	1330	15 B	XI 24	1	1331 12	10	12	IV 20	10	8	18	6	5
731	1331	4E	14	3	1332 1	130	II 29	10	IV 28	V 27	VI 26	VII 25	VIII 24
732	1332	IX 22 C	3	2	XII 20	1333 I 18	17	III 29	17		15	14	13
733*	1333	12A	X 22	XI 20	10	1334 8	7	18	7	16	5	4	3
734	1334	1 E	12	10	XI 29	XII 28	1335 I 27	II 25	III 27	IV 25	V 25	VI 23	VII 23
735	1335	VIII 21 B	IX 20	19	7	17	1336 16	14	15	13	13 3	1 1	11
736*	1336	10 G	9	8	X	6	1337 VII 30 D	3	II 22	III 23	IV 22	V 21	VI 20
737	1338	20 B	V I 11	IX 27	2 7	XI 25	2 5 1 5	1338 I 23	12	13	12	1 1	10
738*	1339	9 F	2 9 1 9	17	1 7	15	4	1339 13	12	1	III 31	IV 29	V 29
739	1340	VI 27 C	8	6	6	4	XI 22	XII 21	1341 I 20	II 18	20	1 8	18
740	1341	17 A	VII 27	VIII 25	IX 24	X 23	12	11	1342 10	8	10	8	8
741*	1342	6E	17	15	14	13	1	XI 30	XII 30	1343 I 28	II 27	1 1 1	1 V
742	1343	V 26 B	6	4	3	2	X 21	19	19	1344 17	16	2 8	2 7
743	1344	15 G	VI 25	VII 24	VIII 23	IX 21	10	8	8	1345 6	5	1 6	1 5
744*	1345	4D	14	13	12	10	IX 29	X 28	XI 27	XII 26	1346 I 25	II 23	5
745	1346	IV 24 B	3	2	1	VIII 30	19	18	17	16	1347 15	13 2	III 25
746*	1347	13 F	V 24	VI 22	VII 22	20	VIII 27	IX 25	X 25	XI 23	1348 4	1349 1	15
747	1348	1C	13	11	11	20	VIII 27	IX 25	X 25	XI 23	1349 1	2 1	3
748	1349	III 22 A	1	V 30	VI 29	VII 28	17	15	15	13	13	13 5 0	II 20
749*	1350	11 E	IV 21	2 0	19	18	6	4	4	2	2	XII 31	10
750	1351	II 28 B	10	9	8	7	VII 26	VIII 24	IX 23	X 22	XI 21	20	1351 I 30
751	1352	18G	III 30	IV 28	V 28	VI 26	15	13	12	11	2 1	1352 19	19
752*	1353	6D	19	17	16	15	VI 23	VII 22	VIII 21	IX 30	10 X	XI 28	1353 8
753	1354	I 26 A	8	1 7	1 7	5	4	2	1	19	30	17	XII 28
754	1355	16 F	15	16	15	V 24	13	12	11	99	I X	7	7
755*	1356	5 C	4	4	3	14	V 22	20	VII 30	VIII 28	2 7	X	7
756	1357	XII 25 A	1357 I 24	II 22	III 24	2	V 22	11	20	18	1 7 6	2 6	XI 25
757*	1358	14 E	1358 13	11	13	2	IV 30	V 29	VI 28	VII 27	V 1 1 1	1 6	15
758	1359	3 B	1359 2	131	2	11	IV 30	V 29	VI 28	VII 27	2 6	5	4
759	1360	XI 23 G	XII 23	1360 I 21	II 20	III 31	19	18	17	16	15 4 VII	1 3 2	13
760*	1361	11 D	11	1361			8	7	6	5	24 14 2	V I 1 1	2
761	1362	X 31	98 XI	29	1362 I 28	20	III 28	IV 26	V 26	VI 24	14	2 2	IX 21
762	1363	21 F	20	19	1363 18	II 26	6	4	4	2		V I 1	11
763*	1364	10 C	9	8	1364 7	16	5	II 23	III 24	IV 23	V 22	VI 21	VIII 30
764	1365	18 E	X 28	XI 26	XII 26	1365 I 24	13	14	13	12	21	2 0	19
765	1366	7B	18	16	16	1366 14	2	3	2	1	11 V	10	9
766*	1367	VIII 28 G	7	5	5	1367 3	1368 I 23	II 21	III 22	IV 20	3 1	VI 29	VII 29
767	1368	16 D	IX 27	X 26	XI 25	1368 11	9		11	9	20 9	18	18

Hegira years	1 Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shaban	9 Ramadhan	10 Shawwa	11 Dju-l-kade	12 Dju-l-hidje
771*	1369 VIII 5A	IX 4	X 3	XI 2	XII 1	XII 31	1370 I 29	II 28	III 29	IV 28	V 27	VI 26
772	1370 VII 26 F	VIII 25	IX 23	X 23	XI 21	21	1371 I 19	18	19	18	17	16
773	1371 15 C	14	12	12	10	10	1372 I 8	7	7	6	5	4
771*	1372 3 G	2	VIII 31	IX 30	X 29	XI 28	XII 27	1373 I 26	II 24	III 26	IV 24	V 21
775	1373 VI 23 E	VII 23	21	20	19	18	17	1374 I 16	14	16	14	1
776*	1374 12 B	12	10	9	8	7	6	1375 I 5	3	5	3	3
777	1375 2 G	2	VII 31	VIII 30	IX 28	X 28	XI 26	XII 26	1376 I 24	II 23	III 23	IV 22
778	1376 V 21 D	VI 20	19	18	16	16	14	1377 I 12	11	12	11	11
779*	1377 10 A	9	8	7	5	5	3	1378 I 1	1	1	1	III 31
(-m)	1378 IN 30 F	V 30	VI 28	VII 28	VIII 26	IX 25	X 24	XI 23	XII 22	1379 I 21	II 19	21
781	1379 19 C	19	17	17	15	14	13	12	11	1380 I 10	8	II
782*	1380 7 G	7	5	5	3	2	1	X 31	XI 29	XII 29	1381 I 27	II 26
783	1381 III 28 E	IV 27	V 26	VI 25	VII 24	VIII 23	IX 21	21	19	19	17	16
784	1382 17 B	16	15	14	13	12	10	10	8	8	1383 I 6	
785*	1383 6 F	5	4	3	2	1	VIII 30	IX 29	X 28	XI 27	XII 26	1384 I 2:1
786	1384 11 24 D	III 25	IV 23	V 23	VI 21	VII 21	19	18	17	16	15	1385 14
787*	1385 12 A	14	12	12	10	10	8	7	6	5	4	1386
788	1386 2 F	4	2	2	V 31	VI 30	VII 29	VIII 28	IX 26	X 26	XI 24	XII 24
789*	1387 I 22 C	II 21	III 22	IV 21	20	19	18	17	15	15	13	1
790*	1388 11 G	10	10	9	8	7	6	5	3	3	1	1
791	1388 N 11:31 E	1389 I 30	II 28	III 30	IV 28	V 28	VI 26	VII 26	VIII 24	IX 23	X 22	XI 21
792	1389 20 B	1390 I 19	17	19	17	15	15	15	13	12	11	10
793*	1390 9 F	1391 I 8	6	8	6	6	4	4	2	1	IX 30	X 30
794	1391 XI 29 D	XII 29	1392 I 27	II 26	III 26	IV 25	V 24	VI 23	VII 22	VIII 21	19	H
795	1392 17 A	17	1393 I 15	14	15	14	13	12	11	10	8	I
796*	1393 6 E	6	1394 I 4	3	4	3	2	1	VI 30	VII 30	VIII 28	IX 27
797	1394 X 27 C	XI 26	XII 25	1395 I 24	II 22	III 24	IV 22	V 22	20	20	18	I
798*	1395 16 G	15	14	1396 I 13	11	12	10	10	8	8	6	7
799	1396 5 E	4	3	1397 I 2	1	2	III 31	IV 30	V 29	VI 28	VII 27	VIII 26
800	1397 IX 24 B	X 24	XI 22	XII 22	1398 I 20	II 19	20	19	18	17	16	1
801*	1398 13 F	13	11	11	1399 I 9	8	9	8	7	6	5	VII 2
802	1399 3 D	3	1	1	XII 30	1400 I 29	II 27	III 28	IV 26	V 26	VI 24	VII 23
803	1400 VIII 22 A	IX 21	X 20	XI 19	18	1401 I 17	15	17	15	15	13	12
804*	1401 11 E	10	9	8	7	1402 I 6	4	6	4	4	4	2
805	1,402 1 C	VIII 31	IX 29	X 29	XI 27	XII 27	1403 I 25	11 24	III 25	IV 24	V 23	VI 22
806*	1403 VII 21 G	20	18	18	16	16	1404 I 14	13	13	12	11	10
807	1404 10 E	9	7	7	5	5	1405 I 3	2	3	2	1	V 31
808	1405 VI 29 B	VII 29	VIII 27	IX 26	X 25	XI 24	XII 23	1406 I 22	II 20	III 22	IV 20	20
809*	1406 18 F	18	16	15	14	13	12	1407 I 11	9	11	9	8
810	1407 8 D	8	6	5	4	3	2	1408 I 1	I 30	II 29	III 29	1
811	1408 V 27 A	VI 26	VII 25	VIII 24	IX 22	X 22	XI 20	XII 20	1409 I 18	17	18	I
812*	1409 16 E	15	14	13	11	11	9	9	1410 I 7	6	7	1
813	1410 6 C	5	4	3	1	1	X 30	XI 29	XII 28	1411 I 27	II 25	1112
814	1411 IN 25 G	V 25	VI 23	VII 23	VIII 21	IX 20	19	18	17	1412 I 16	14	I
815*	1412 13 D	13	11	11	9	8	7	6	5	1413 I 4	2	
816	1413 3 B	3	1	1	VII 30	VIII 29	IX 27	X 27	XI 25	XII 25	1414 I 23	11 2*
817*	1414 III 23 F	IV 22	V 21	VI 20	19	18	16	16	14	1415 I 12	11	II
818	1415 13 D	12	11	10	9	8	6	6	4	1416 I 2	1	1
819	1416 1 A	III 31	IV 29	V 29	VI 27	VII 27	VIII 25	IX 24	X 23	XI 22	XII 21	1417 I 20
820*	1417 II 18 E	20	18	18	16	16	14	13	12	11	10	1418
821	1418 8 C	10	8	8	6	6	4	3	2	1	XI 30	XII 30
822	1419 I 28 G	II 27	III 28	IV 27	V 26	VI 25	VII 24	VIII 23	IX 21	X 21	19	H
823*	1420 17 D	16	16	15	14	13	12	11	9	9	7	7
824	1421 6 B	5	6	5	4	3	2	1	VIII 30	IX 29	X 28	N I 2:
825	1421 XII 26 F	1422 I 25	II 23	III 25	IV 23	V 23	VI 21	VII 21	19	18	17	10

c. this •		Moharrem	2 Safar	3 Rebi I	4 Rebi II	5 Djumada I	6 Djumada II	7 Redjeb	8 Shaban	9 Ramadhan	10 Shawwal	11 Dju-l-kade	12 Dju-l-hidje
826* 8-27	1.122 11-23	XII 15 C 5 A	1423 I 14 4	II 12 2	III 14 3	IV 12 1	V 12 1	VI 10 V 30	VII 10 VI 29	VIII 8 VII 28	IX 7 VIII 27	X 6 IX 25	XI 5 X 25
828*	1121	XI 23 E	XII 23	1425 I 21 11	II 20 10	III 21 11	IV 20 10	19 9	18 8	17 7	16 6	14 4	14 4
829	1425	13 C	13	1426	11	10	10	9	8	7	6	4	4
830	1426	2 G	2	XII 31	1427 I 30	II 28	III 30	IV 28	V 28	VI 26	VII 26	VIII 24	IX 23
831*	1427	X 22 D	XI 21	20	1428 19	17	18	16	16	14	14	12	11
832	1428	11 B	10	9	1429 8	6	8	6	6	4	4	2	1
833	1429	IX 30 F	X 30	XI 28	XII 28	1430 I 26	II 25	III 26	IV 25	V 24	VI 23	VII 22	VIII 21
834*	1430	19 C	19	17	17	1431 15	14	15	14	13	12	11	10
835	1431	9A	9	7	7	1432 5	4	4	3	2	1	VI 30	VII 30
836*	1432	VIII 28E	IX 27	X 26	XI 25	XII 24	1433 I 23	II 21	III 23	IV 21	V 21	19	19
837	1433	18 C	17	16	15	14	1434 13	11	13	1. 1	11	9	9
838	1434	7 G	6	5	4	3	1435 2	1 31	2	III 31	IV 30	V 29	VI 28
839*	1435	VII 27 D	VIII 26	IX 24	X 24	XI 22	XII 22	1436 I 20	II 19	19	18	17	16
840	1436	16 B	15	13	13	11	11	1437 9	8	9	8	7	6
841	1437	5 F	4	9	2	X 31	XI 30	XII 29	1438 I 28	II 26	III 2i	IV 26	V 26
812*	1438	VI 24 C	VII 24	VIII 22	IX 21	20	19	18	1439 17	15	17	15	15
843	1139	11 A	14	12	11	10	9	8	1440 7	5	6	4	4
844	1.110	2 E	2	VII 31	VIII 30	IX 28	X 28	XI 26	XII 26	1441 124	23	III 24	IV 23
815*	1.141	V 22 13	VI 21	20	19	17	17	15	15	1442 13	12	13	
846	1112	12 G	11	10	9	7	7	5	5	1443 3	2	3	12
817*	1113	1 D	V 30	VI 29	VII 29	VIII 27	IX 26	X 25	XI 24	XII 23	1444 I 22	II 20	III 21
848	I HII V 20		20	18	18	16	15	14	13	12	1445 11	9	11
849	i l r>	9 F	9	7	7	5	4	3	2	1	XII 31	1446 I 29	II 28
850*	0;	III 29 4:	IV 28	V 27	VI 26	VII 25	VIII 24	IX 22	X 22	XI 20	20	1447 18	17
851	1447	19 A	18	17	16	15	14	12	12	10	10	1448 8	
852	1.148	7 E	6	5	4	3	2	VIII 31	IX 30	X 29	XI 28	XII 27	1449 126
1119	11 24 B		III 26	IV 24	V 24	VI 22	VII 22	20	19	18	17	16	1450 15
851	I I:;(1	14 G	16	14	14	12	12	10	9	8	7	6	1451 5
855	11: .1	3 D	5	3	3	1	1	VII 30	VIII 29	IX 27	X 27	XI 25	XII 25
856*	11:52	1 23 A	II 22	III 22	IV 21	V 20	VI 19	18	17	15	15	13	13
857	1153	12E	11	12	11	10	9	8		5	5	3	3
858*	I the')1	1 C	131	1	III 31	IV 29	V 29	VI 27	VII 27	VIII 25	IX 24	X 23	XI 22
859	i-r,1	XII 22 A	1455 I 21	II 19	21	19	19	17	VII 27	17	VIII 25	IX 24	X 23
860	11 E		1456 10	8	9	7		5	5	3	2	1	X 31
861*	1456	XI 29 B	XII 29	1457 I 27	II 26	III 27	IV 26	V 25	VI 24	VII 23	VIII 22	IX 20	20
862	1457	19 G	10	1458 17	16	17	16	15	14	13	12	10	10
863	1458	8 D	8	1459 6	5	6	5	4	3	2	1	VIII 30	IX 29
864*	1459	X 28 A	XI 27	XII 26	1460 I 25	II 23	III 24	IV 22	V 22	VI 20	VII 20	18	17
865	1460	17 F	16	15	1461 14	12	14	12	12	10	10	8	7
866*	1461	6 C	5	4	1462 3		3	1		V 30	VI 29	VII 28	VIII 27
867	1462	IX 26 A	X 26	XI 24	XII 24	1463 I 22	11 21	III 22	IV 21	20	19	18	17
868	1463	15 E	15	13	13	1464 11	10	10	9	8	7	6	5
869*	1464	3B	3	1	1	XII 30	1465 I 29	II 27	III 29	IV 27	V 27	VI 25	VII 25
S70	1465	VIII 2.1 G	IX 23	X 22	XI 21	20	1466 19	17	19	17	17	15	15
871	1466	13 D	12	11	10	9	1467 8	6	8	6	6	4	4
872*11	2 A		1	IX 30	X 30	NI 28	XII 28	1468 I 26	II 25	III 25	IV 24	V 23	VI 22
67873	1-168	VII 22 F	VIII 21	19	19	17	17	1469 15	14	15	14	13	12
87187:	1469	11 C	10	8	8	6	6	1470 4	3	4	3	2	
*	1170	VI 30 G	VII 30	VIII 28	IX 27	X 26	XI 25	XII 24	1471 I 23	II	21	III 23	IV 21
876	1.171	20 E	20	18	17	16	15	14	1472 13	11	1 2	1	10
877*	147- 2	8B	8	6	5	4	3	2	1473 1	I 30	I 1	III 30	IV 29
878	1473	V 29 G	VI 28	VII 27	VIII 26	IX 24	X 24	XI 22	XII 22	1474 I 20	1 9	8	20
879	1471	18 D	17	16	15	13	13	11	11	1475 9	1 4	7 6	9
880*	147,	7A	6	5	4	2	2	X 31	XI 30	XII 29	1 2	8	III 27

years of the Hegira	1 Moharrem	2 Safar	3 Rabi I	4 Rebi II	5 Djumada I Shawwal	6 Djumada II	7 Redjeb	8 Shaban	9 Ramadhan	10	11 Dju-l-kade	12 Dju-l-hidje
881	1476 IV 26 F	V 26	VI 24	VII 24	VIII 22	IX 21	X 20	XI 19	XII 18	1477 I 17	II 15	III 17
882	1477 15 C	15	13	13	11	10	9	8	7	1478 6	4	III 17
883*	1478 4 G	4	2	2	VII 31	VIII 30	IX 28	X 28	NI 26	XII 26	1479 124	11123
884	1479 III 25 E	IV 24	V 23	VI 22	21	20	18	18	16	16	1480 14	113
885	1480 13 B	12	11	10	9	8	7	6	5	4	1481 2	1
886*	1481 2 F	1	IV 30	V 30	VI 28	VII 28	VIII 26	IX 25	X 24	NI 23	XII 22	1482 12 P
887	1482 II 20 D	III 22	20	20	18	18	16	15	14	13	1483 III	III
888*	1483 9 A	11	9	9	7	7	5	4	3	2	1	XII 31
889	1484 I 30 F	II 29	III 29	IV 28	V 27	VI 26	VII 25	VIII 24	IX 22	X 22	XI 20	20
890	1485 18 C	17	18	17	16	15	14	13	11	11	9	9
891*	1486 7 G	6	7	6	5	4	3	2	VIII 31	IX 30	X 29	XI 28
892	1486 XII 28 E	1487 I 27	II 25	III 27	IV 25	V 25	VI 23	VII 23	21	20	199	18
893	1487 17 B	1488 16	14	15	13	13	11	11	9	8	77	fi
894*	1488 5 F	1489 4	2	4	2	2	V 31	VI 30	VII 29	VIII 28	IX 26	X 26
895	1489 XI 25 D	• XII 25	1490 I 23	II 22	III 23	IV 22	21	20	19	18	196	196
896*	1490 14 A	14	1491 12	11	12	11	10	9	8	7	55	5
897	1491 4 F	4	1492 2	1	1	III 31	IV 29	V 29	VI 27	VII 27	1493 11	IX 21
898	1492 X 23 C	XI 22	XII 21	1493 I 20	II 18	20	18	18	16	16	2 5 114	133
899*	1493 12 G	11	10	1494 9	7	9	7	7	5	5	3 V 13	22
900	1494 2 E	I	XI 30	XII 30	1495 I 28	II 27	III 28	IV 27	V 26	VI 25	VII 24	VIII 23
901	1495 IX 21 13	X 21	19	19	1496 17	16	16	15	14	13	122	111
902*	1496 9 F	9	7	7	1497 5	4	5	4	3	2	11	VII 31
903	1497 VIII 30 D	IX 29	X 28	XI 27	XII 26	1498 I 25	II 23	III 25	IV 23	V 23	VY 124	221
904	1498 19 A	18	17	16	15	1499 14	12	14	12	12	110	10 VOI
905*	1499 8 E	7	6	5	4	1500 3	1	2	III 31	IV 30	V 299	VI 28
906	1500 VII 28 C	VIII 27	IX 25	X 25	XI 23	XII 23	1501 I 21	II 20	21	20	199	118
907*	1501 17 G	16	14	14	12	12	1502 10	9	10	9	88	7 V
908	1502 7 E	6	4	4	2	2	XII 31	1503 I 30	1128	III 30	1 V 28	28 28
909	1503 VI 26 B	VII 26	VIII 24	IX 23	X 22	XI 21	• 20	1504 19	17	18	166	th 28
910*	1504 14 F	14	12	11	10	9	8	1505 7	5	7	5	5

DAYS OF THE WEEK IN THE MUSLIM CALENDAR FOR THE BEGINNING OF EACH MONTH

Moharrem	Safar	Rebi I	Rebi II	Dji	mada I	Djumada II	Redjeb	Shaban	Ramadhan	Shawwal	Dju-l-kade	Dju-l-hidje
V s D the my me I	D the my me I V s	the my 'Me I V S D	me I V s D the my		J V	S D the my Me . J V	D L my me I s	Ma Me I S D the	me I D L my	V s my me	the. my me . I	I Ma 'me . I V I)

The weekday of the law day of Moharrem is found in each year in the previous concordance table between the years of the Hegira and the years of the Christian era.

SPECIAL TABLES

- I. — Julian calendar.
- II. — Order, names and duration of months in various calendars.
- III. — Table of neomenias in January at the beginning of each Byzantine cycle of 95 years.
- IV. — Table of Julian neomenies.
- V. — Correspondence of the Alexandrian months and calendars with the Julian months and calendars.
- VI. — Correspondence of the months and calendars of the fixed Armenian calendar with those of the Julian calendar.
- VII. — Correspondence of the months and calendars of the vague Armenian calendar with those of the Julian calendar.
- VIII. — Correspondence of the months and calendars of the Muslim calendar with those of the Julian calendar.
- IX. — Correspondence of the years of the Mongolian chronological cycle before the years of the Christian era to the thirteenth-tenth centuries.
- X. — Correspondence between the years of the era of Iezdegerd and those of the Christian era.
- XI. — Years having the same date as Easter.
- XII. — Perpetual calendar of Byzantine Easter.
- XIII. — Dates of mobile holidays depending on Easter and corresponding weekdays of various fixed holidays.
- XIV. — Correspondence of indictions with the years of the Christian-Dionysian era.
- XV. — Course of the Sun in the signs of the Zodiac.
- XVI. — Perpetual calendar.

I. - CALENDI

	Ianuarius	Februarius	Martius	Aprilis	Maius	Ittnius
1	Kalendae Ianuariae	Kalendae Februariar	Kalendae Martiae	Kalendae Apriles	Kalendae Maiae	Kalendas Iuniae
2	IV Nonas Ianuar.	IV Nouas Februarias	VI Nonas Martias	IV Nouas Apriles	VI Nouas Maias	IV Nouas Iunias
3	III Nouas	III Nouas	V Nouas —	III Nouas	V Nouas —	III Nouas
4	Pridie Nouas	Pridie Nouas	IV Nonas	Pridie Nouas —	IV Nouas —	Pridie Nouas
5	Nonae Ianuariae	Nonae Februariar	III Nouas	Nonae Apriles	III Nouas —	Nonae Iuniae
6	VIII Idus Ianuar.	VIII Idus Februar.	Pridie Nouas	VIII Idus Apriles	Pridie Nouas	VIII Idus Iunias
	VII Idus	VII Idus —	Nonae . Martiae	VII _{τ,ι}	Nonae Maiae	VII Idus
8	VI Idus	VI Idus	VIII Idus Iartias	VI Idus —	VIII Idus Maias	VI Idus
9	V Idus	V Idus	VII Idus	V Idus —	VII Idus —	V Idus
10	IV Idus	IV Idus	VI Idus	IV Idus	VI Idus	IV Idus
11	III Idus	III Idus	V Idus	III Idus —	V Idus	III Idus
12	Pridie Idus	Pridie Idus	IV Idus	Pridie _{τ,ι}	IV Idus —	Pridie Idus
13	Idus Ianuariae	Idus Februariar	III Idus	Idus Apriles	III Idus —	Idus Iuniae
14	XIX Kalendas Febr.	XVI Kal. Martias	Pridie Idus	XVIII Kal. Maias	Pridie Idus	XVIII Kal. Iulias
15	Xviii	XV	Idus Martiae	Xvii	Idus Maiae	Xvii
16	XVI I	Xiv	XVII Kal. Apriles	Xvi	XVII Kal. Iunias	Xvi
17	Xvi	Xiii	Xvi	XV	Xvi	XV
18	XV	Xii	XV	Xiv	XV	Xiv
19	Xiv	xi	Xiv	Xiii	Xiv	Xiii
20	Xiii	X	Xiii	Xii	Xiii	Xii
21	Xii	Ix	Xii	xi	Xii	xi
22	xi	Viii	xi	X	xi	X
23	X	Vii	X	Ix	X	Ix
24	Ix	VI — (a.b.)	Ix	Viii	Ix	Viii
25	Viii	V (VI) Kal. Martias	Viii	Vii	Viii	Vii
26	Vii	IV (V)	Vii	Vi	Vii	Vi
27	Vi	III (IV)	Vi	V	Vi	V
28	V	Pridie (III)	V	Iv	V	Iv
29	Iv	(Pridie Kal. I. Viart.)	Iv	Iii	Iv	Iii
30	Iii		Iii	Pridie Kal. Maias	Iii	Pridie Kal. Iulias
31	Pridie Kal. Febr.		Pridie Kal. Apriles		Pridie Kal. Iunias	

I^{ER} JULIEN

Julius (Quintilis)	Augustus Sextilis	Septembris	Octobris	Novembris	Decembris	
Kalendae Iuliae	Kalendae Augustae	Kalendae Septembris	Kalendae Octobers	Kalendae Novembris	Kalendae Decembres	
V I Nouas Iulias	V Nouas Augustas	IV Nonas Septembris	VI Nonas Octobers	IV Nouas Novembres	IV Nouas Decembres	2
V Nouas —	III Nouas	III Nouas	V Nonas	III Nouas	III Nonas	3
IV Nouas	Pridie Nouas	Pridie Nouas —	IV Nouas	Pridie Nonas	Pridie Nonas	4
III Nouas —	Nonae Augustae	Nonae Septembris	III Nouas	Nonae Novembris	Nonae Decembres	5
Pridie Nonaà —	VIII Idus Augustas	VIII Idus Septembris	Pridie Nonas	VIII Idus Novembres	VIII Idus Decembres	6
Nonae Iuliae	VII Idus	VII Idus	Nonae Octobers	VII Idus	VII Idus —	7
VIII Idus Iulias	VI Idus	VI Idus	VIII Idus Octobres	VI Idus	VI Idus	8
VII Idus	V Idus	V Idus	VII Idus —	V Idus	V Idus	9
VI Idus	IV Idus	IV Idus	VI Idus	IV Idus	IV Idus	10
• V Idus	III Idus	III Idus	V Idus	III Idus	III Idus	11
JV Idus	Pridie Idus	Pridie Idus	IV Idus	Pridie Idus	Pridie Mus	12
III Idus	Idus Augustae	Idus Septembris	III Idus	Idus Novembris	Idus Decembres	13
Pridie Idus	XIX Kal. Septembris	XVIII Kal. Octobers	Pridie Idus	XVIII Kal. Decembr.	XIX Kal. Ianuarias	14
Idus Iuliae	Xviii	Xvii	Idus Octobers	Xvii	Xviii	15
XVII Kal. Augustas	Xvii	Xvi	XVII Kal. Novembris	Xvi	Xvii	16
Xvi	Xvi	Xv	Xvi	Xv	Xvi	17
Xv	Xv	Xiv	Xv	Xiv	Xv	18
Xiv	Xiv	Xiii	Xiv	Xiii	Xiv	19
Xiii	Xiii	Xii	Xiii	Xii	Xiii	20
Xii	Xii	xi	Xii	xi	Xii	21
xi	xi	X	xi	X	xi	22-
X	X	Ix	X	Ix	X	23
Ix	Ix	Viii	Ix	Viii	Ix	24
Viii	Viii	Vii	Viii	Vii	Viii	25
Vii	Vii	Vi	Vii	Vi	Vii	26
Vi	Vi	V	Vi	V	Vi	27
V	V	Iv	V	Iv	V	\$z
Iv	Iv	Iii	Iv	Iii	Iv	29
Iii	Iii	Pridie Kal. Octobers	Iii	Pridie Kal. Decembres	Iii	30
Pridie Kal. Augustas	Pridie Kal. Septembris		Pridie Kal. Novembris		Pridie Kal. Ianuarias	31

DURATION - ORDER, NAMES AND

	Calendarrier	I *	II	III	IV	V	VI
Ménémphites	Julian.....	January 31 days	February 28 (29) days	March 31 days	April 30 days	May 31 days	June 30 days
	Byzantine : Roman names : .. Maced names : .. Pachymetris : .. Theodore Gaza : ..	September Gorpaios Gamalion Maimacterion	October Hyperbeteaios Elaphebolion Pynepsion	November Dios Mounychion Anthesterion	December Apellaios Skirophorion Poseideon	January Audynaïos Hecatombaion Gamalion	February Peritios Lenaion Elaphebolion
	Syrian : Maced names : .. Arabic names : ..	Hyperbeteaios Tishrit I (= October)	Dios Tishrit III (= November)	Apellaios Kanûn I (= December)	Audynaïos Kanfin. II (= January)	Peritios Shebat (= February)	Dystros Adar (= March)
	Alexandrian (1) : Coptic : .. Arabic : .. Ethiopian : ..	Thoth (Thot) Tût Maschierem (Mascharem) August 29 (30)	Phaophi (Paoi) Babeh Tchemet (Tekemt) 28 (29) Sept.	Athyr (Athor) (Hator) Hatûr Hedâr 28 (29) October	Choyak (Koiak) Kijhak Tahasas (Tahsas) 27 (28) Nov.	Tybi (tobi) Tûbeh Ter! (Ter) 27 (28) Dec.	Mechir Amshir Jecatit (jecatit) 26 (27) January
Mois alexandrins de 30 jours (+ épagomènes)	Fixed Armenian (2) : ..	Navasard 11 August	Eryz 10 September	Sahmi October 10	Tre November 9	Kalots December 9	Arats January 8
	de Bostra (3) : ..	Xanthicos March 22	Artemisios 21 April	Daisios May 21	Panemos June 20	Lôos July 20	Gorpaios 19 August
	Gaza (4) : ..	Dios	Apellaios	Audynaïos	Peritios	Dystros	Xanthicos
	d'Ascalon (4) : ..	Hyperbeteaios October 28	Dios 2 November	Apellaios 27 December	Audynaïos 26 January	Peritios 25 February	Dystros March 27
of Tyre (5) : ..	of Tyre (5) : ..	Hyperbeteaios 19 October 30 days	Dios 18 November 30 days	Apellaios 18 December 30 days	Audynaïos 17 January 30 days	Peritios 16 February 30 days	Dystros March 18 31 days
	Muslim : ..	Moharram 30 days	Safar 29 days	Rebi I 30 days	Rebi II 29 days	Djumada I 30 days	Djumada II 29 days

* Digits I to XII indicate the rank of the month in the year for each calendar (I = 1st month of the year; II = 2nd month; etc.).

(1) The dates in parentheses are valid for the year following the 6th epogone every 4 years. This 6th epagomene is placed at the end of the 3rd year of tetraeterid, six months before the Julian bissextile.

(2) The 60th epagomene of the fixed Armenian calendar - is placed at the very end of the tetraeterid, six months after the Julian bissextile. Dates in parentheses from March the same applies to leap years.

MONTHS IN VARIOUS CALENDARS

Vii	Viii	I NT	X	xi	X i i	Epagomenes
July 31 days	August 31 days	September 30 days	October 31 days	November 30 Days	December • 31 days	
March Dystros Kronios Mounychion	April Xanthicos Boedromion Thargelion	May Artemisios Pyanepsion Skirophorion	June Daisios Maimacterion Hecatombaion		August – Lôos Poseideon Boedromion	
Xanthicos Nien (= April)	Artemisios Ijar (Ajar) (= May)	Daisios Haziran (= June)	Panemos Tammuz (= July)	Lôos ab (= August) July	Gorpiaios Elul (= September)	
Phamenôth Barmâhat Megabit 25 (26) February	Pharmouthi (Pharmuthi) Barmûdeh Miaza 27 March	Pachôn (Pachons) Bashnas (Beshnes) Ghembot (Ginbot) April 26	Payni (in Paoni) Baûneh Sen è 26 May	Epiphi (Epip) Abib (Ebib) Hamlè June 25	Mesore (mesori) Mesri (Mesra) Nehasiè (Nahase) July 25	Epagomenai Abûgomen (Ejamenesi) Pagomaen 24-28 (29) August
I. Ieheki (Mehégan) February 7	Areg 9 (8) March	Aheki (Ahegan) April 8 (7)	Mareri 8 (7) May	Margats 7 (6) June	Hrotits 7 (6) July	Aveliats 6 (5)-10 August
Hyperberetaios 18 September	Dios 18 October	Apellaios 17 November	Audynaïos 17 December	Peritios 16 January	Dystros February	Epagomenai 17 March
Artemisios Xanthicos April 26	Daisios Artemisios 26 May	Panemos Daisios June 25	Lôos Panemos 25 July	Epagomenai 24-28 August	Gorpiaios Lôos 29 August	Hyperberetaios Gorpiaios September 28
Xanthicos April 18 31 days	Artemisios 19 niai 31 days	Daisios 19 June 31 days	Panemos 20 July 31 days	Lôos 20 August 30 days	Gorpiaios 19 September 30 days	
Redjeb 30 days	Shaban 29 days	Ramadhan 30 days	Shawwal 29 days	Dju-l-kade 30 days	Dju-l-hidje 29 (30) days	

(3) In Bostra's calendar, the intercalary day of the tetraeterid was placed without any doubt at the end of the epagomenes as 6^o epagomene, so shortly after the "Julian issexta.

(4) The place of the epagomenes left at the end of August in the calendars of Gaza and Ascalon suggests that these calendars followed the Alexandrian calendar and that to the 6th epagomene and as for the year of the tetraeterid where it was intercalated. Refer accordingly to this timetable.

(5) It is likely that the interlayeric day of the tetraeterid was placed at the end of Lôos as the 31st day of this month, six months before the Julian bissexta

III. - TABLE OF NEOMENIES IN JANUARY
AT THE BEGINNING OF EACH 95-YEAR BYZANTINE CYCLE

(Dates are given according to the Greenwich meridian)

Calcul d'après le tableau de NEUGEBAUER, *Tafeln für Sonne, Planeten und Mond*, Leipzig, 1914.

years	January	March (leap years)
345	19.43 = January 19 10 p.m.	
440	19.88 - 2r► 9	19 March, at about 9 a.m.
535	19.32 = 19 19	
630	18.75=19 6	
725	18.22 = 18 17	
820	18.67 = 19 4	March 18, at about 4 a.m.
915	17.81 = 18 14	
1010	17.56 — 18 1	
1105	17.01 = 17 12	
1200	17.45 = 17 22	16 March, at about 10 p.m.
1295	16.89 = 17 9	
1390	16.23 = 16 17	
1485	15.78 = 16 6	
1580	16.22 — 16 17	15 March, at about 5 p.m.

The table of neomenias of the 19-year cycle does not correspond to the exact measurements of the duration of the average solar day: it follows a shift which results in an advance of the moon on the calendars of the months or, in other words, a delay of the Julian dates on the neomenias and the age of the moon, of the average value of about one third of a day per century. This table shows this offset. We have taken as milestones the first year of the Byzantine cycles of 95 years, to put it in relation to the table of neomenias of the Byzantine cycle of 19 years, whose usefulness it completes.

example. — To what monthly calendar falls the 1st day of the moon in April 1399?

Rep. — I take the nearest milestone: 1390. The year 1399 is the first of the Byzantine cycle of 19 years. Neomenia is there on April 9. The 10th day is thereafter April 18. But the year 1390 (in the table above) having its neomenia of January on the 16th instead of the 20th, it is a shift of 4 days that will also have to be observed in the year 1399. The 10th jour of the moon will therefore be there on April 14 instead of the 18th.

Note. — I. In leap years, the Julian date of the moon must be delayed by one day to from March 1.

2. The application of the above table leaves a possibility of error from 1 to 2 days.

IV. - TABLE OF JULIAN NEOMENIES

cycle western (Alexandrian)	January	February	March					July	(z	cu	Y	December	Cz
										Ei (cl)	° ¼		
Ii	12	10	23	21	21	19	19	X7	1G	15	1	1 3	Xvii
Iii	31	1	31	10	10	8	8	6	5	4	2	2	Xviii
Iv	20	18	20	29	29	27	27	25	24	23	1	2 1	Xix
V	9	7	9	18	18	16	16	14	13	12	3	1 0	I
Vi	28	26 (27)	28	7	7	5	5	3	2	2, 31	3	2 9	Ii
Vii	17	15	17	28	26	24	24	22	21	20	li	18	Iii
Viii	6	4	6	15	15	13	13	11	10	9			Iv
Ix	25	23	25	5	4	3	21	30	29	28	2'	26	V
X	14	12	14	23	23	21	21	19	18	17	D	15	Vi
xi	3	2	3	12	12	10	10	8	7	6	4	4	Vii
Xii	22	20	22	21	31	29	29	27	26	25	2	23	Viii
Xiii	11	9	11	20	20	18	18	16	15	14	the	12	Ix
Xiv	30	28 (29)	30	9	9	7	7	5	4	3	:	1, 31	X
Xv	19	17	19	28	28	26	26	24	23	22	2	20	xi
Xvi	8	6	8	17	17	15	15	13	12	11	li	9	Xii
Xvii	27	25 (26)	27	6	6	4	4	2	1	30	2'	28	Xiii
Xviii	16	14	16	27	25	23	23	21	20	19	1	17	Xiv
Xix	5	3	5	14	14	12	12	10	9	8	6	6	Xv
				4	3	2	1, 30	28	27	26	2:	24	Xvi
						1, 31	29	28	27	27	..?	24	

Note. - I. The dates in italics indicate the 30-day lunations.

2. The dates in bold indicate the embolismic months of westerners (**DENYS LE PETIT, BEDE**). Among the Alexandrians and Byzantines, the embolismic months are those which immediately precede the Paschal lunation in the years III (XIX), VI (III), VIII (V), XI (VIII), XIV (XI) XVII (XIV), XIX (XVI).

3. In year XIX of the Western cycle, the dates of the lower line are those of the Alexandrians, whose lunar cycle is based on the neomenia of the 1 Thôth (August 29), beginning of the Alexandrian year. It is probably out of inattention that in *Ginzel, III*, 136-137, these Alexandrian dates are attributed to westerners, and western dates to alexandrians.

V. - CORRESPONDENCE OF THE ALEXANDRIAN MONTHS AND CALENDARS
WITH THE JULIAN MONTHS AND CALENDARS

Thôth	Tût	Maschierem	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	August-September		29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Phaôphi	Babeh	Techemti	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	September-October		28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Athyr	Hatûr	Hedâr	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	October-November		28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Choyak	Kijhak	Tahasas	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	November-December		27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Tybi	Tûbeh	Teri	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	December-January		27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Mechir	Amshir	Jecatit	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	January-February		26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Phamenôth	Barmâhat	Megabit	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	February-March		25 26 27 28 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Pharmouthi	Barmûdeh	Miazâ	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	March-April		27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Pashôn	Bashnas	Ghembot	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	April-May		26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Payni	Baûneh	Senè	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	May-June		26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Epiphi	Abib	Hamle	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	June-July		25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Mesorè	Mesri	Nehasiè	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	July-August		25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Epagomenai	Abûgomen	Pagomaen	1 2 3 4 5 (6)
	August		24 25 26 27 28 (29)

remark — After the 6th epogone, an intercalary day which comes every four years, the first thôth corresponds to 30 August, and all Julian dates must be advanced by one day up to and including the following 28 February; 29 February restores the correspondence of the table.

VI. - CORRESPONDENCE OF THE MONTHS AND CALENDARS OF THE FIXED ARMENIAN CALENDAR WITH THOSE OF THE JULIAN CALENDAR

Navasart August-	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2	24 25 26 27 28 29 30 3 4 5 6 7 8 9
Hori September-October	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2	24 25 26 27 28 29 30 3 4 5 6 7 8 9
Sahmi October-November	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1	24 25 26 27 28 29 30 2 3 4 5 6 7 8
Trè November-December	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1	24 25 26 27 28 29 30 2 3 4 5 6 7 8
K alots December-January	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1	24 25 26 27 28 29 30 1 2 3 4 5 6 7
Arats Janvier-	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6
Meheki February-	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8
Areg March-	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7
Aheki April-	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7
Mareri May-	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6
Margats June-July	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6
Hrotits July-August	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1	18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5
Aveliats Augus	1 2 3 4 5 (6) 6 7 8 9 10 (10)	

1. *remark.* — The 6th epogone, intercalary day that comes every 4 years, is placed in august following the Julian bissextle. It is therefore necessary to advance by one day the Julian dates of the painting from the 23rd meheki which, instead of i er March, is then the 29th of February until the incidence of the 6th epogone, which restores the correspondence.

NO

Mode of use. — To which year of the Christian era does the 6 HROTITS 128 of the Armenian era correspond (vague years)?

year being leap, the 131st day, instead of being the II May, will be the Io May.

conclusion. — 6 HROTITS 128 = 10 MAY 680.

We will operate in the same way for the years of the era of Iezdegerd. The beginning of the aimées will have to be sought in table p. 309.

we will operate in the same way for the years of the era of rezdegerd. The beginning of the années will have to be sought in table p. 507.

VIII. - CORRESPONDENCE OF THE MONTHS AND CALENDARS OF THE MUSLIM CALENDAR
WITH THOSE OF THE JULIAN CALENDAR

Julian calendar												Muslim calendar											
34 g	T.1 st C.4					Have 4	<g <1	w H ci(u)	-8 H o	November	December	5 V 4... e	ai (i)	-4 — (e)(c l)	Rebi II	Djumada I	Djumada II	Redjeb	Ḥiḥ Ḥiḥ	Ramadhan	Shawwal	Dju-l-kade (cs)	d A
1	32	60	91	121	152	182	213	244	274	305	335	1	31	60	90	119	149	178	208	237	(cs)	(cs)	326
2	33	61	92	122	153	183	214	245	275	306	336	2	32	61	91	120	150	179	209	238	268	297	327
3	34	62	93	123	154	184	215	246	276	307	337	3	33	62	92	121	151	180	210	239	269	298	328
4	35	63	94	124	155	185	216	247	277	308	338	4	34	63	93	122	152	181	211	240	270	299	329
5	36	64	95	125	156	186	217	248	278	309	339	5	35	64	94	123	153	182	212	241	271	300	330
6	37	65	96	126	157	187	218	249	279	310	340	6	36	65	95	124	154	183	213	242	272	301	331
7	38	66	97	127	158	188	219	250	280	311	341	7	37	66	96	125	155	184	214	243	273	302	332
8	39	67	98	128	159	189	220	251	281	312	342	8	38	67	97	126	156	185	215	244	274	303	333
9	40	68	99	129	160	190	221	252	282	313	343	9	39	68	98	127	157	186	216	245	275	304	334
10	41	69	100	130	161	191	222	253	283	314	344	10	40	69	99	128	158	187	217	246	276	305	335
11	42	70	101	131	162	192	223	254	284	315	345	11	41	70	100	129	159	188	218	247	277	306	336
12	43	71	102	132	163	193	224	255	285	316	346	12	42	71	101	130	160	189	219	248	278	307	337
13	44	72	103	133	164	194	225	256	286	317	347	13	43	72	102	131	161	190	220	249	279	308	338
14	45	73	104	134	165	195	226	257	287	318	348	14	44	73	103	132	162	191	221	250	280	309	339
15	46	74	105	135	165	196	227	258	288	319	349	15	45	74	104	133	163	192	222	251	281	310	340
16	47	75	106	136	167	197	228	259	289	320	350	16	46	75	105	134	164	193	223	252	282	311	341
17	48	76	107	137	168	198	229	260	290	321	351	17	47	76	106	135	165	194	224	253	283	312	342
18	49	77	108	138	169	199	230	261	291	322	352	18	48	77	107	136	166	195	225	254	284	313	343
19	50	78	109	139	170	200	231	262	292	323	353	19	49	78	108	137	167	196	226	255	285	314	344
20	51	79	110	140	171	201	232	263	293	324	354	20	50	79	109	138	168	197	227	256	286	315	345
21	52	80	111	141	172	202	233	264	294	325	355	21	51	80	110	139	169	198	228	257	287	316	346
22	53	81	112	142	173	203	234	265	295	326	356	22	52	81	111	140	170	199	229	258	288	317	347
23	54	82	113	143	174	204	235	266	296	327	357	23	53	82	112	141	171	200	230	259	289	318	348
24	55	83	114	144	175	205	236	267	297	328	358	24	54	83	113	142	172	201	231	260	290	319	349
25	56	84	115	145	176	206	237	268	298	329	359	25	55	84	114	143	173	202	232	261	291	320	350
26	57	85	116	146	177	207	238	269	299	330	360	26	56	85	115	144	174	203	233	262	292	321	351
27	58	86	117	147	178	208	239	270	300	331	361	27	57	86	116	145	175	204	234	263	293	322	352
28	59	87	118	148	179	209	240	271	301	332	362	28	58	87	117	146	176	205	235	264	294	323	353
29	(60)	88	119	149	180	210	241	272	302	333	363	29	59	88	118	147	177	206	236	265	295	324	354
30		89	12(1)	150	181	211	242	273	303	334	364	30		89		148		207		266		325	(355:
31		90		151		212	243		304		365												

Mode of use. — What date of the Christian era does 6 RED JEB 204 correspond to? This year 204 begins on June 28, 819. 1ḤJune 28 is the 179th day of the Julian year. The 6th Redjeb is the 183rd day of the Muslim year. I add 179 and 182 (= 183. - 1); 179 + 182 = 359. The 6th Redjeb 204 is the 359th day of the Julian year 819. That day is December 25. 6 Redjeb 204 is therefore on 25 December 819. — When the addition exceeds the number of days in the year, it must be subtracted from the total (i.e. 365 in ordinary years, 366 in leap years). For example, the operation, made on the 26 Redjeb 204, results in a total of 379. We then subtract 365 from 379. That leaves 14, which is carried over to the following year. The 26th Redjeb 204 is on January 14, 820.

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IX. - CORRESPONDENCE
YEARS OF THE MONGOLIAN CHRONOLOGICAL CYCLE WITH THE YEARS OF THE CHRISTIAN ERA
IN THE THIRTEENTH AND FOURTEENTH CENTURIES

(after Br. VON ERDMANN *Temudschin der unerschütterliche* Leipzig, 1862)

Designation of years	The years begin in March, at the new moon																
1. Chuluguna (Rat)	119	2	1204	1216	1228	1240	1252	1264	1276	1288	1300	1312	1324	1336	1348	1360	1372 1384
2. Ukar (Taurus)	1396	1193	1205	1217	1229	1241	1253	1265	1277	1289	1301	1313	1325	1337	1349	1361	1373
3. Bars (Tiger)	1385	1397	1194	1206	1218	1230	1242	1254	1266	1278	1290	1302	1314	1326	1338	1350	1362
4. Taolai (Hare)	1374	1386	1398	1195	1207	1219	1231	1243	1255	1267	1279	1291	1303	1315	1327	1339	1351
5. Read (Dragon)	1363	1375	1387	1399	1196	1208	1220	1232	1244	1256	1268	1280	1292	1304	1316	1328	1340
6. Mogai Snake	1352	1364	1376	1388	1400	1197	1209	1221	1233	1245	1257	1269	1281	1293	1305	1317	1329
7. Morin (Horse)	1341	1353	1365	1377	1389	1401	1198	1210	1222	1234	1246	1258	1270	1282	1294	1306	1318
8. Chonin (Sheep)	1330	1342	1354	1366	1378	1390	1402	1199	1211	1223	1235	1247	1259	1271	1283	1295	1307
9. Batschin . (Monkey)	1319	1331	1343	1355	1367	1379	1391	1403	1200	1212	1224	1236	1248	1260	1272	1284	1296
10. taka (Hen)	1308	1320	1332	1344	1356	1368	1380	1392	1404	1201	1213	1225	1237	1249	1261	1273	1285
11. Mochai . . . Dog	1297	1309	1321	1333	1345	1357	1369	1381	1393	1405	1202	1214	1226	1238	1250	1262	1274
12. Gachai (Pork)	1286	1298	1310	1322	1334	1346	1358	1370	1382	1394	1406	1203	1215	1227	1239	1251	1263
	1275	1287	1299	1311	1323	1335	1347	1359	1371	1383	1395	1407					

X. - CORRESPONDENCE BETWEEN THE YEARS OF THE ERA OF IEZDEGERD AND THOSE OF THE CHRISTIAN ERA

The correspondence is given from 4 years in 4 years to each change
that the leap year brings

1,632 16 d	fla	205	836	April 26	409	1040	March 6	598	1229	Jan. 18	798	1428	Nov. 29
5 636 15	-	209	840	25 -	413	1044	5 -	602	1233	17 -	802	1432	28
9 640 14	-	213	844	24 -	417	1048	4 -	606	1237	16 -	806	1436	27
13 644 13	-	217	848	23 -	421	1052	3 -	610	1241	15 -	810	1440	26
17 648 12	-	221	852	22 -	425	1056	2 -	614	1245	14 -	814	1444	25 -
21 652 11	-	225	856	21 -	429	1060	1 -	618	1249	13 -	818	1448	24 -
25 656 10	-	229	860	20 -	430	1061	1 -	622	1253	12 -	822	1452	23
	-	233	864	19 -	431	1062	1 -	626	1257	11 -	826	1456	22 -
29,660 9	-	237	868	18 -	432	1063	1 -	630	1261	10 -	830	1460	21 -
33,664 8	-	241	872	17 -	433	1064	Feb. 29	634	1265	9 -	834	1464	20
37,668 7	-	245	876	16 -	434	1065	28 -	638	1269	8 -	838	1468	19 -
41,672 6	-	249	880	15 -	438	1069	27 -	642	1273	7 -	842	1472	18 --
45,676 5	-	253	884	14 -	442	1073	26 -	646	1277	6 -	846	1476	17 -
49,680 4	-	257	888	13 -	446	1077	25 -	650	1281	5 -	850	1480	16 -
53,684 3	-	261	892	12 -	450	1081	24 -	654	1285	4 -	854	1484	15 -
57,688 2	-	265	896	11 -	454	1085	23 -	658	1289	3 -	858	1488	14 -
61,692 1	lay	269	900	10 —	458	1089	22 -	662	1293	2 -	862	1492	13 -
65,696 31	-	273	904	9 -	462	1093	21 -	666	1297	1 -	866	1496	12 -
69,700 30	-	277	908	8 -	466	1097	20 -	669	1300	1 -	870	1500	11 -
73,704 29	-	281	912	7 —	470	1101	19 —	670	1300	Dec. 31	874	1504	10 -
77,708 28	—	285	916	6 -	474	1105	18 -	674	1304	30 -	878	1508	9 -
81,712 27	-	289	920	5 -	478	1109	17 -	678	1308	29 -	882	1512	8 -
85,716	-	293	924	4 -	482	1113	16 -	682	1312	28 -	886	1516	7 -
26,89,720	-	297	928	3 -	486	1117	15 -	686	1316	27 -	890	1520	6 -
25,93,724	-	301	932	2 -	490	1121	14 -	690	1320	26 -	894	1524	5 —
97,728	-	305	936	1 -	494	1125	13 -	694	1324	25 -	898	1528	4 —
23,101,732	—	309	940	March 31	498	1129	12 -	698	1328	24 -	902	1532	3 —
22,105,736	-	313	944	30 -	502	1133	11 -	702	1332	23 -	906	1536	2 —
21,109,740	-	317	948	29 -	506	1137	10 -	706	1336	22 -	910	1540	1 —
20,113,744	-	321	952	28 -	510	1141	9 -	710	1340	21 -	914	1544	Oct. 31
29,117,748 18	-	325	956	27 -	514	1145	8 -	714	1344	20 -	918	1548	30 -
121 752 17	-	329	960	26 -	518	1149	7 -	718	1348	19 -	922	1552	29
125 756 16	-	333	964	25 -	522	1153	6 -	722	1352	18 -	926	1556	28 -
129 760 15	-	337	968	24 -	526	1157	5 -	726	1356	17 -	930	1560	27 -
133 764 14	-	341	972	23 -	530	1161	4 -	730	1360	16 -	934	1564	26 -
137 768 13	-	345	976	22 -	534	1165	3 -	734	1364	15 -	938	1568	25 -
141 772 12	-	349	980	21 -	538	1169	2 -	738	1368	14 -	942	1572	24 -
145 776 11	-	353	984	20 -	542	1173	1 -	742	1372	13 -	946	1576	23 -
149 780 10	-	357	988	19 -	546	1177	Jan. 31	746	1376	12 —	950	1580	22 -
153 784 9 157	-	361	992	18 -	550	1181	30 -	750	1380	11 -	954	1584	21 -
788 8 161 792	-	365	996	17 -	554	1185	29 -	754	1384	10 -	958	1588	20 -
7 165 796 6	-	369	1000	16 -	558	1189	28 -	758	1388	9 -	962	1592	19 -
169 800 5 173	-	373	1004	15 -	562	1193	27 -	762	1392	8 -	966	1596	18 —
804 4 177 808	-	377	1008	14 -	566	1197	26 -	766	1396	7 -	970	• 1600	17 —
3 181 812 2	-	381	1012	13 -	570	1201	25 -	770	1400	6 -	974	1604	16 —
185 816 1 189	-	385	1016	12 -	574	1205	24 -	774	1404	5 -	978	1608	15 —
820 30 a 193	-	389	1020	11 -	578	1209	23 -	778	1408	4 -	982	1612	14 —
824 29 197	-	393	1024	10 —	582	1213	22 -	782	1412	3 -	986	1616	13 —
828 28 201	eril	397	1028	9 -	586	1217	21 -	786	1416	2 -	990	1620	12 —
832 27	-	401	1032	8 -	590	1221	20 -	790	1420	1 -	994	1624	11 —
	-	405	1036	7 -	594	1225	19 —	794	1424	Nov. 30	998	1628	10 —

Note. --From 5 Oct. X582, the monthly calendars, given here in Julian style, are to be advanced by three days in the Gregorian style.

XI. - YEARS HAVING THE SAME DATE OF EASTER

- 22 MARCH. - 319, 414, 509, 604, 851, 946, 1041, 1136, 1383, 1478.
 MARCH 23 - 346, 357, 441, 452, 536, 699, 783, 794, 878, 889, 973, 984, 1068, 1231, 1315, 1326, 1410, 1421.
 MARCH 24 - 289, 300, 384, 547, 631, 642, 726, 737, 821, 832, 916, 1079, 1163, 1174, 1258, 1269, 1353, 1364, 1448.
 MARCH 25 - 316, 395, 479, 490, 563, 574, 585, 658, 669, 680, 753, 764, 848, 927, 1011, 1022, 1095, 1106, 1117, 1190, 1201, 1212, 1285, 1296, 1380, 1459.
 26 MARCH. - 327, 338, 411, 422, 433, 495, 506, 517, 528, 590, 601, 612, 685, 696, 775, 780, 859, 870, 943, 954, 965, 1027, 1038, 1049, 1060, 1122, 1133, 1144, 1217, 1228, 1307, 1312, 1391, 1402, 1475.
 27 MARCH. - 343, 354, 365, 376, 438, 449, 460, 533, 544, 623, 628, 707, 718, 791, 802, 813, 875, 886, 897, 908, 970, 981, 992, 1065, 1076, 1155, 1160, 1239, 1250, 1323, 1334, 1345, 1407, 1418, 1429, 1440.
 28 MARCH. - 286, 297, 308, 370, 381, 392, 465, 471, 476, 555, 560, 566, 639, 650, 661, 723, 734, 745, 756, 807, 818, 829, 840, 902, 903, 924, 997, 1003, 1008, 1087, 1092, 1098, 1171, 1182, 1193, 1255, 1266, 1277, 1288, 1339, 1350, 1361, 1372, 1434, 1445, 1456.
 29 MARCH. - 313, 324, 403, 408, 487, 498, 571, 582, 593, 655, 666, 677, 688, 750, 761, 772, 845, 856, 935, 940, 1019, 1030, 1103, 1114, 1125, 1187, 1198, 1209, 1220, 1282, 1293, 1304, 1377, 1388, 1467, 1472.
 30 MARCH. - 335, 340, 419, 430, 503, 514, 525, 587, 598, 609, 620, 682, 693, 704, 777, 788, 867, 872, 951, 962, 1035, 1046, 1057, 1119, 1130, 1141, 1152, 1214, 1225, 1236, 1309, 1320, 1399, 1404, 1483, 1494.
 31 MARCH. - 351, 362, 373, 435, 446, 457, 468, 519, 530, 541, 552, 614, 625, 636, 709, 715, 720, 799, 804, 810, 883, 894, 905, 967, 978, 989, 1000, 1051, 1062, 1073, 1084, 1146, 1157, 1168, 1241, 1247, 1252, 1331, 1336, 1342, 1415, 1426, 1437, 1499.
 1 APRIL. - 294, 305, 367, 378, 389, 400, 462, 473, 484, 557, 568, 647, 652, 731, 742, 815, 826, 837, 899, 910, 921, 932, 994, 1005, 1016, 1089, 1100, 1179, 1184, 1263, 1274, 1347, 1358, 1369, 1431, 1442, 1453, 1464.
 2 APRIL. - 299, 310, 321, 332, 394, 405, 416, 489, 500, 579, 584, 663, 674, 747, 758, 769, 831, 842, 853, 864, 926, 937, 948, 1021, 1032, 1111, 1116, 1195, 1206, 1279, 1290, 1301, 1363, 1374, 1385, 1396, 1458, 1469, 1480.
 3 APRIL. - 326, 337, 348, 421, 427, 432, 511, 516, 522, 595, 606, 617, 679, 690, 701, 712, 763, 774, 785, 796, 858, 869, 880, 953, 959, 964, 1043, 1048, 1054, 1127, 1138, 1149, 1211, 1222, 1233, 1244, 1295, 1306, 1317, 1328, 1390, 1401, 1412, 1485, 1491, 1496.
 4 APRIL. - 359, 364, 443, 454, 527, 538, 549, 611, 622, 633, 644, 706, 717, 728, 801, 812, 891, 896, 975, 986, 1059, 1070, 1081, 1143, 1154, 1165, 1176, 1238, 1249, 1260, 1333, 1344, 1423, 1428, 1507.
 5 APRIL. - 291, 296, 302, 375, 386, 397, 459, 470, 481, 492, 543, 554, 565, 576, 638, 649, 660, 733, 739, 711, 823, 828, 834, 907, 918, 929, 991, 1002, 1013, 1024, 1075, 1086, 1097, 1108, 1170, 1181, 1192, 1265, 1271, 1276, 13:""). 1360, 1366, 1439, 1450, 1461, 1523.
 6 APRIL. - 307, 318, 329, 391, 402, 413, 424, 475, 486, 497, 508, 570, 581, 592, 665, 671, 676, 755, 760, 766, 839, 850, 861, 923, 934, 945, 956, 1007, 1018, 1029, 1040, 1102, 1113, 1124, 1197, 1203, 1208, 1287, 1292, 1298, 1371, 1382, 1393, 1455, 1466, 1477, 1488, 1539.
 7 APRIL. - 323, 334, 345, 356, 418, 429, 440, 513, 524, 603, 608, 687, 698, 771, 782, 793, 855, 866, 877, 888, 950, 961, 972, 1045, 1056, 1135, 1140, 1219, 1230, 1303, 1314, 1325, 1387, 1398, 1409, 1420, 1482, 1493, 1504.
 8 APRIL. - 288, 350, 361, 372, 4-15. 151, 456, 535, 540, 546, 619, 630, 641, 703, 714, 725, 736, 787, 798, 809, 820, 882, 893, 904, 977, 983, 988, 1067, 1072, 1078, 1151, 1162, 1173, 1235, 1246, 1257, 1268, 1319, 1330, 1341, 1352, 1414, 1425, 1436, 1509.
 9 APRIL. - 293, 304, 383, 388, 467, 478, 551, 562, 573, 635, 646, 657, 668, 730, 711, 752, 825, 836, 915, 920, 999, 1010, 1083, 1094, 1105, 1167, 1178, 1189, 1200, 1262, 1273, 1284, 1357, 1368, 1117. 1452, 1531.
 10 APRIL. - 315, 320, 399, 410, 483, 494, 505, 567, 578, 589, 600, 662, 673, 681, 757, 768, 847, 852, 931, 942, 1015, 1026, 1037, 1099, 1110, 1121, 1132, 1194, 1205, 1216, 1289, 1300, 1379, 1384, 1463, 1474, 1547.
 11 APRIL. - 331, 342, 353, 415, 426, 437, 448, 499, 510, 521, 532, 594, 605, 616, 689, 695, 700, 779, 784, 790, 863, 874, 885, 947, 958, 969, 980, 1031, 1042, 1053, 1064, 1126, 1137, 1148, 1221, 1227, 1232, 1311, 1316, 1322, 1395, 1406, 1417, 1479, 1490, 1501.
 12 APRIL. - 285, 347, 358, 369, 380, 442, 453, 464, 537, 548, 627, 632, 711, 722, 795, 806, 817, 879, 890, 901, 912, 974, 985, 996, 1069, 1080, 1159, 1164, 1243, 1254, 1327, 1338, 1349, 1411, 1422, 1433, 1444, 1506.
 13 APRIL. - 290, 301, 312, 374, 385, 396, 469, 480, 559, 564, 643, 654, 727, 738, 749, 811, 822, 833, 844, 906, 917, 928, 1001, 1012, 1091, 1096, 1175, 1186, 1259, 1270, 1281, 1343, 1354, 1365, 1376, 1438, 1449, 1460, 1533.
 14 APRIL. - 306, 317, 328, 401, 407, 412, 491, 496, 502, 575, 586, 597, 659, 670, 681, 692, 743, 754, 765, 776, 838, 849, 860, 933, 939, 944, 1023, 1028, 1034, 1107, 1118, 1129, 1191, 1202, 1213, 1224, 1275, 1286, 1297, 1308, 1370, 1381, 1392, 1465, 1471, 1476, 1555.
 15 APRIL. - 339, 344, 423, 434, 507, 518, 529, 591, 602, 613, 624, 686, 697, 708, 781, 792, 871, 876, 955, 966, 1039, 1050, 1061, 1123, 1134, 1145, 1156, 1218, 1229, 1240, 1313, 1324, 1403, 1408, 1487, 1498, 1571.
 16 APRIL. - 355, 366, 377, 439, 450, 461, 472, 523, 534, 545, 556, 618, 629, 640, 713, 719, 724, 803, 808, 814, 887, 898, 909, 971, 982, 993, 1004, 1055, 1066, 1077, 1088, 1150, 1161, 1172, 1245, 1251, 1256, 1335, 1340, 1346, 1419, 1430, 1441, 1503.
 17 APRIL. - 287, 298, 309, 371, 382, 393, 404, 466, 477, 488, 561, 572, 651, 656, 735, 746, 819, 830, 841, 903, 914, 925, 936, 998, 1009, 1020, 1093, 1104, 1183, 1188, 1267, 1278, 1351, 1362, 1373, 1435, 1446, 1457, 1468, 1530.

18 APRIL. - 303, 314, 325, 336, 398, 409, 420, 493, 504, 583, 588, 667, 678, 751, 762, 773, 835, 846, 857, 868, 930, 941, 952, 1025, 1036, 1115, 1120, 1199, 1210, 1283, 1294, 1305, 1367, 1378, 1389, 1400, 1462, 1473, 1481, 1557.

19 APRIL. - 330, 341, 352, 425, 431, 436, 515, 520, 526, 599, 610, 621, 683, 694, 705, 716, 767, 778, 789, 800, 862, 873, 884, 957, 963, 968, 1047, 1052, 1058, 1131, 1142, 1153, 1215, 1226, 1237, 1248, 1299, 1310, 1321, 1332, 1394, 1405, 1416, 1489, 1495, 1500.

20 APRIL. - 284, 363, 368, 447, 458, 531, 542, 553, 615, 626, 637, 648, 710, 721, 732, 805, 816, 895, 900, 979, 990, 1063, 1071, 1085, 1147, 1158, 1169, 1080, 1242, 1253, 1264, 1337, 1348, 1427, 1432, 1511.

21 APRIL. - 295, 379, 390, 463, 474, 485, 558, 569, 580, 653, 664, 748, 827, 911, 922, 995, 1006, 1017, 1090, 1101, 1112, 1185, 1196, 1280, 1359, 1443, 1454, 1527.

APRIL. - 311, 322, 333, 406, 417, 428, 501, 512, 596, 675, 759, 770, 843, 854, 865, 938, 949, 960, 1033, 1044, 1128, 1207, 1291, 1302, 1375, 1386, 1397, 1470, 1481, 1492, 1565.

APRIL 23 - 349, 360, 444, 607, 691, 702, 786, 797, 881, 892, 976, 1139, 1223, 1234, 1318, 1329, 1413, 1424, 1508.

24 APRIL. - 292, 455, 539, 550, 634, 645, 729, 740, 824, 987, 1071, 1082, 1166, 1177, 1261, 1272, 1356, 1519.

25 APRIL. - 387, 482, 577, 672, 919, 1014, 1109, 1204, 1451, 1546.

THE BYZANTINE CALENDAR OF BYZANTINE EASTER

Years of the lunar cycle	Pascal term	Loved by the solar cycle							
		1	2	3	9	10	5	6	
		7 18 12	13 19 24	14 8 25	15 20 26	4 21 27	11 22 16	17 23 28	
2 . . . 22	March (V)	2 April (Ma)	7 A (Me)	6 A (J)	5 A (V)	4 A (S)	3 A (D)	9 A (G)	L 8 A
M			24 M (S)	23 M (D)	29 M (L)	28 M (Ma)	27 M (Me)	26 M (J)	25 M (S)
3 . . . 10	April (Me)	14 A	(J) 13 A	(V) 12 A	(S) 11 A	(D) 17 A	(L) 16 A	A (V)	1 A (Me)
4 . . . 30	March (S)	31 M (D)	6 A (J)	5 A (V)	4 A (S)	3 A (D)	2 A (L)	A (Ma)	15 A (J)
5 . . . 18	April (J)	21 A	(V) 20 A	(S) 19 A	(D) 25 A	(L) 24 A	(Ma) 23 A	(Me) 22 A	"(S) 8 A
G . . . 7	April (D)	14 A	(L) 13 A	(Ma) 12 A	(Me) 11 A	(J) 10 A	(V) 9 A	(Ma) 1 A	(D) 22 A
7 . . . 27	March (Me)	31 M	(J) 30 M	(V) 29 M	(S) 28 M	(D) 3 A	(L) 2 A	(Me) 8 A	(S) 25 M
8 . . . 15	April (L)	21 A	(Ma) 20 A	(Me) 19 A	(J) 18 A	(V) 17 A	(S) 16 A	(D) 8 A	(J) 15 A
9 . . . 4	April (J)	7 A	(V) 6 A	(S) 5 A	(D) 11 A	(L) 10 A	(Ma) 9 A	(Me) 25 M	(J) 15 A
10 . . . 24	March (D)	31 M	(L) 30 M	(Ma) 29 M	(Me) 28 M	(J) 27 M	(V) 26 M	(D) 8 A	(J) 15 A
M									
11 . . . 12	April (V)	14 A	(S) 13 A	(D) 19 A	(L) 18 A	(Ma) 17 A	(Me) 16 A	(D) 8 A	(J) 15 A
12 . . . 1	April (L)	7 A	(Ma) 6 A	(Me) 5 A	(J) 4 A	(V) 3 A	(S) 2 A	(Me) 25 M	(J) 15 A
13 . . . 21	March (J)	24 M	(V) 23 M	(S) 22 M	(D) 28 M	(L) 27 M	(Ma) 26 M	(Me) 25 M	(J) 15 A
M									
14 . . . 9	April (Ma)	14 A	(Me) 13 A	(J) 12 A	(V) 11 A	(S) 10 A	(D) 16 A	(L) 1 A	(Ma) 22 A
15 . . . 29	March (V)	31 M	(S) 30 M	(D) 5 A	(L) 4 A	(Ma) 3 A	(Me) 2 A	(J) 1 A	(Ma) 22 A
16 . . . 17	April (Me)	21 A	(J) 20 A	(V) 19 A	(S) 18 A	(D) 24 A	(L) 23 A	(Me) 8 A	(S) 25 M
17 . . . 5	April (V)	7 A	(S) 6 A	(D) 12 A	(L) 11 A	(Ma) 10 A	(Me) 9 A	(J) 1 A	(Ma) 22 A

Letters in brackets indicate the weekday on which the term Paschal falls, and the following date indicates Easter Sunday.)

This table makes it possible to find the Date of Easter of any Byzantine year. It is enough to know to which year of the lunar cycle and to which beloved of the solar cycle it corresponds. A date sought is at the meeting point between the year of the solar cycle (vertical column) and the year of the lunar cycle (horizontal league). For example, the Byzantine year 6304, which corresponds to year 15 of the lunar cycle and year 4 of the solar cycle, has its date from Easter to April 3.

N.B. — To know which year of the lunar cycle and which year of the solar cycle corresponds to a year of the Byzantine world, this table is divided by 19 (lunar cycle) and by 28 (solar cycle), and the rest of the division indicates the year of the cycle. If there is no rest, the year is the 19th (lunar cycle), the 28th (solar cycle). For example, the year 6300, divided by 19, has as its remnant 11: it is the 11th year of the lunar cycle; divided by 28, it has no rest: it is the 28th loved by the solar cycle.

If we start from the Dionysian Christian year, we will get the Byzantine year by adding 5508.

The information in brackets applies to leap years.		Easter
Tâ cpi:Yra Epiphany, The Kings (Jan. 6)		
HirCCCOCoxil Purification of the Virgin I,a Candlemas (Feb. 2)		
'0 eütxyyeacrti.6 Annunciation (March 25)		
Iv)pcontil TOÜ clacirrrou Septuagesima		
Kuptexil ducôxpec.o Sexagesime		
Kuptcoch -riîc *rupocpecyou Quinquagésime		
Ash Wednesday		
Kuptaxi) aTcTpε v-nc&iv K. 1-7)ç 6πεoçoi.aç Lenunancue ae ... areme		

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III I 111111 III! .1111111111111111111g		
cc Go -4 c•D cry e- this z.:.) ,-- 0 co co -4 (7) el e- ce el—0, cc op t4 cn cri .. P cç z., D 1-11 0 pç 0q -4 cs] Cree iiiiiiiii 5 :- ~-	this br.) t•D z•D t\D b., t•D z•D t\D bD ts. D ----- 0, cc op t4 cn cri .. P cç z., D 1-11 0 pç 0q -4 cs] Cree	Meaoresvm)xocrii
this c.... D e e e ee eee his e 1-4 s-o cmco-ics) Cil di~ CoJe 1-10 c.C> 00 -4 Ci Cil 4i. This ZU l-. 0 shout 00 1 ci C.R.4.c...,e,--c,-----T lig.milimitimmilimmitiE %		'AvdcXeLç ascension
1.,6, 1.,**1., 1-, '' This b.0 1--, 0 cry 00 -I ai Cil ai.. This e ,--. 1-4 0 cç00 -4 Cl) Cr).•l This e l-. 0 Cri 00 'I here Ul di'. This b:.. l-, here imilimitg.iuuuuuuuuuuuim_e9 c.--	Co Cq eeeeeeeeeeee E. This e l-, 0 cry 00 -I ai Cil ai.. This e ,--. 1-4 0 cç00 -4 Cl) Cr).•l This e l-. 0 Cri 00 'I here Ul di'. This b:.. l-, here	Kuptcoeh ç Ilsvnixoeřiç Pentecost
Ed -----ca ce t\D t., e t•D t•D e t•D t•D t•D 1--, .--. l-- 0 ce op -4 cs) cr e- ce e s- (:) cm GB -1 aC.31 .0 C.4, 2.0 ,--. ,--. C) ci) 00 ***1 Ct crl e. this e- ,--- o cm go -4		KyLocx•rj rcliv écrwv It&VTGOV Trinity
l li l ill i l l l l l l l l i l i l l Gl l l l l l l i l i l l i Fi		Apostles Peter Saints re and Paul (29 June)
Xe.-- <Cnti tiKK"-4<cnt-1-(XX'-1 <Wt:i t.ee—i<u)tt-ee--< Cett4 P (T) P a w (cr) P (l) P (t).		MsTav.6pepcocr tq transfiguration (August 6)
<rntzit-4ex<rnb t.xx-4<cntit.xx—<a)trit ix e—<cntr ee.-- e n w a Roa W (r)P a		
		KoEp-tystç Oco'rôxo Assumption (August 15)
		"TcPcoertç Tor) Draupor exaltation of the Holy Cross (Sept. 14)
t·ex'-<wtt'ex.--crect'xx--<rAtzit.xe(-4<a)tit-xt-<upt yew a PaHave CD P (l) p r D		All Hallows (Nov. 1)
		Tee c2a6&oc presentation of the Most Holy Virgin (Nov. 21)
		'H yivv7)atç 1-or) Xptersoiz Noel (Dec. 25)

LES DEPENDANT DE PAQUES NANTS DE DIVERSES FÊTES FIXES

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XIV. - CORRESPONDENCE OF INDICATIONS
WITH THE YEARS OF THE CHRISTIAN-DIONYSIAN ERA

<p>Box A contains the centenary figures of the dates; Box B contains the lower digits; frame C contains the indications. What is the indication in the year 1389? It is the one that is marked at the meeting of the vertical extension of 1300 and the horizontal extension of 89, namely: <i>indiction 12</i>.</p> <p>Note. - The indiction corresponds to most of the Christian year which is equalled here; it begins on 1 September of the previous year.</p>							A		
							300	400	500
							600	700	800
							900	1000	1100
							1200	1300	1400
							1500	1600	1700
bi									
0	15	30	45	60	75	90	3	13	8
1	16	31	46	61	76	91		14	9
2	17	32	47	62	77	92	5	15	10
3	18	33	48	63	87	93		1	11
4	19	34	49	64	79	94	7	2	12
5	20	35	50	65	80	95	8	3	13
6	21	36	51	66	81	96	9		14
7	22	37	52	67	82	97	10		15
8	23	38	53	68	83	98	11	g	1
9	24	39	54	69	1	o.i	12	7	2
10	25	40	55	70			13	8	3
11	26	41	56	71	86		14	9	4
12	27	42	57	72	87		15	10	5
13	28	43	58	73	88		1	11	6
14	29	44	59	74	89			12	

XV. - COURSE OF THE SUN IN THE SIGNS OF THE ZODIAC

Calculation based on the tables of R. SCHRAM
(The time marked is that of the Greenwich meridian)

	duration to the course	Julian dates of the sun's entry into the constellations of the zodiac							
		300	500	650	800	950	1100	1250	1400
ez Aquarius ..	29 j. 2 p.m.	Jan. 20, 1 (a.m.)	Jan. 18, 2 p.m.	Jan. 17, 12:37 a.m.	Jan. 16, 10 (a.m.)	Jan. 14, 8 p.m.	Jan. 14, 6 (a.m.)	Jan. 12, 1 p.m.	Jan. 12, 2 (a.m.)
♓ Pisces..	29 j. 11 p.m.	Feb. 18, 11 p.m.	Feb. 17, 11 (a.m.)	Feb. 15, 8 p.m.	Feb. 15, 5 (a.m.)	Feb. 13, 1.1 (a.m.)	Feb. 12, 11 p.m.	Feb. 11, 9	Feb. 10, 6 p.m.
0° Aries.... (equinox)	30 j. 11 (a.m.)	March 20, 10	March 18, 8 p.m.	March 18, 5 (a.m.)	March 16, 12	March 15, 8 p.m.	March 14, 4 (a.m.)	March 13, 3 p.m.	March 11, 9 p.m.
♉ Taurus..	31 j. .	April 20 9 (a.m.)	April 18, 6 p.m.	April 18, 1 (a.m.)	April 16 8 (a.m.)	April 15, 3 p.m.	April 13, 10 p.m.	April 13, 5	April 11, 1 p.m.
♊ Gemini	31 j. 8 a.m.	May 21, 6 pp.m.	May 20, 2 (a.m.)	May 19, 10 (a.m.)	May 17, 2 pp.m.	May 16, 9 pp.m.	May 15, 3 (a.m.)	May 14, 9	May 12, 4 (p.m.)
G Le Cancer.... (solstice)	31 j. 11 (a.m.)	June 22, 4 (a.m.)	June 20 2 pp.m.	June 19 8 pp.m.	June 18, 1 (a.m.)	June 17 8 (a.m.)	June 15 2 pp.m.	June 14, 8 p.m.	June 13 2 (a.m.)
The Lion	31 j. 7 a.m.	July 23 2 pp.m.	July 21 11 p.m.	July 21 5 (a.m.)	July 19 1 (p.m.)	July 18 6 pp.m.	July 17 12:26 a.m.	July 16 6	July 14 12:00
don't The Virgin	30 j. 9 p.m.	August 23, 12	August 21, 8	August 21, 6 (a.m.)	August 19, 2 p.m.	August 18, 8	August 17 3 (a.m.)	August 16 at	August 14, 5 p.m.
re= Libra .. (equinox) nt	30 j. 9 (a.m.)	Sept. 22 10 p.m.	Sep. 21. 10 (a.m.)	Sept. 20, 6 p.m.	Sep. 19. 2 (a.m.)	Sep. 18. 11 (a.m.)	Sept. 16, 7 p.m.	Sep. 16, 3	Sep. 14. 11 (a.m.)
♏ Scorpio ..	29 j. 10 p.m.	Oct. 22, 7 pp.m.	Oct. 21, 8 (a.m.)	Oct. 20, 6 pp.m.	Oct. 19, 3 (a.m.)	Oct. 18, 1 (p.m.)	Oct. 16, 10 p.m.	Oct. 16, 7	Oct. 14, 4 (p.m.)
♐ Sagittarius	29 j. 2 p.m.	Nov. 21, 8 (a.m.)	Nov. 19, 10 p.m.	Nov. 19, 8 (a.m.)	Nov. 17, 6 pp.m.	Nov. 17, 4 (a.m.)	Nov. 15, 2 pp.m.	Nov 14, 12 (a.m.)	Nov. 13, 10
♑ Capricom (solstice)	29 j. 4 a.m.	Dec. 20, 6 pp.m.	Dec. 19, 7 (a.m.)	Dec. 18, 6 pp.m.	Dec. 17, 4 (a.m.)	Dec. 16, 2 pp.m.	Dec. 15, 12:56 a.m.	Dec. 13, 11 (a.m.)	Dec. 12, 9 pp.m.

note. — I. The Sun takes 365.2422 days to travel the 360 degrees of the zodiac. But its speed is not uniform in the various signs. It oscillates between 29 days 4 hours (sign of Capricorn) and 31 days 11 hours (sign of Cancer). The number of degrees travelled in a sign does not therefore always correspond to an equal number of days. The difference, however, can only have an effect on dating with the last degrees. The duration of the journey (first column) is given, by rounding up to the nearest hour, according to the dates of the entry of the Sun into the zodiac signs indicated for the year 1955 by the *Yearbook of the Bureau des Longitudes (Yearbook for the year 1950, p. 587)*.

2. We have indicated here the hours without the lower fractions which, necessary in astronomy, have no bearing in history.

Can we also expect this table to make us find the year if we know the calendar of the month and the day of the week? If we have only these two data, it would be futile to try it, because, during the first fifteen centuries of the Christian era, such a meeting is possible 212 times, to which must be added 53 if the monthly date is in January or February (before the 29th). But if, in addition to the day of the week and the monthly date, we also know the century, the choice remains at 14 or 15 dates, depending on the given century. It is necessary to add 3 or 4, depending on the century, if it is a date of January or February (before the 29th). The search for these possible dates may be of interest. Here's how.

Let's take May 18, Thursday. What are the years when this is encountered, for example, in the xi^e century, namely, here, from 1000 (included) to 1100 (not included).

- a) Knowing the century, I look on its horizontal line, in table n° 2, the letter which is under J.C is E.
- b) I then look for this letter E in the same table in the vertical extension of May 18. It is in the sixth horizontal line. All the numbers in table 4 placed on this same horizontal line designate the years of the century in question having May 18 on a Thursday: 1004, 'or', 1021, etc.

Note. - If it is February 29 (leap year), the choice is limited to numbers divisible by 4.

V

LITURGICAL CALENDARS

I. — Byzantine liturgical calendar:

- a) Liturgical cycle of the Byzantine Church;
- b) List of saints in the Byzantine calendar;
- c) Other liturgical indications.

II. — Liturgical cycle and feasts of the Armenians.

III. — Coptic liturgical calendar:

- a) Sunday cycle;
- b) Holidays.

IV. — Liturgical calendar of the Syrian Jacobites:

- a) Sunday cycle;
- b) Holidays.

V. — Liturgical calendar of the Syrian Nestorians:

- a) Sunday cycle;
- b) Holidays.

VI. — Main Muslim holidays.

BYZANTINE LITURGICAL CALENDAR

references. — Liturgical books: Triodion, Pentekostarion, Evangelist, Menes. A. DMITRIEVSKIJ, *Typika* I, Kiev, 1895. H. DELEHAYE, *Synaxarium Ecclesiae Constantinopolitanae*, AASS, Propylaeum Novembris, Brussels, 1902. N. NILLES, *Kalendarium manuale uTriusch Ecclesiae II*, Innsbruck, 1897, p. 1-414. A. COUTURIER, *Courses of Greek-Melkite liturgy*, I, Paris, 1912, p. 115-170.

(A) LITURGICAL CYCLE OF THE BYZANTINE CHURCH

Table of mobile festivals

I imanches	Byzantine calendar	Latin calendar
	Triodion	
xe	Sunday of the Publican and the Pharisee (16th Sun. of Luke). Invited week (7,-pr.csytevi;cstpoç) or the Artzibourion.	Last Sunday after the Epiphany.
	Sunday of the Prodgal (Pr sun. of Luke). Monday of the Apokréo. Saturday of souls or Psychosabbaton.	D. de la Septuagésime : <i>Circumdederunt</i> (1).
Viii	Sunday of the Apokréo or the Second Avènement. Tyrophagy Monday. Tuesday of Tyrophagy: Day of Instruction (17:1,ç x.curr;zi,aecçç).	D. de la Sexagésime : <i>Exsurge</i> .
	Tyrophagy Week: Memory of holy ascetics.	
VII'	Sunday of Tyrophagy. First week of fasts (&-Uov.:kç zockpec). Monday: beginning of The Great Lent. Saturday: Memory of the miracle of the colybes performed by Saint Theodore Tiron.	D. de la Quinquagésime : <i>Esto mihi</i> . Ash Wednesday.
VI'	' First Sunday of fasts: Sunday of The Golden-thodoxy (previously: -7.(7)v 7por.7.-:4pww). Second week of fasting.	First Sunday of Lent: <i>Invocabit</i> . Wednesday, Friday, Saturday of the Fourth Time. Second Sunday of Lent: <i>Reïniscere</i> . Third Sunday of Lent: <i>Oculi</i> .
	Second Sunday of fasts. Third week of fasts.	
ive	Third Sunday of fasts: Sunday of the worship of the Cross (7'ic, rs':wiporpoazu-vipexoç). Fourth week of fasts. Wednesday: Middle of fasts. Fourth Sunday of fasts: memory of St. John Climaque. Fifth week of fasts. Thursday of the Grand Canon. Saturday of the Acathist Anthem.	Thursday: Mid-Lent. Fourth Sunday of Lent: <i>Laetare</i> .
II °	Fifth Sunday of fasts: Memory of St. Mary the Égyptian. Palm Week (-:(:);) ;37.tori). Saturday of Lazarus.	of Passion Sunday: <i>Judica</i> .
I e r	Palm Sunday. The holy and great week.	Palm Sunday: <i>Domine, does not run along</i> . Holy Week (Hebdomada major).

Beginning of the Introït, serving 1 designate sunday. Of ineme, for the following Sundays.

Sundays after Easter	Byzantine calendar	Latin calendar
	Pentekostarion	Paschal time
I	Easter Sunday. Renovation Week (έ6?3ovf.y.q, 8:Y.Z/L- vicscp.oç). Each of the six days is called &ocym.vipcv.oç or Tnç &xxxtvr,csi.t.Lou.	Easter Sunday (Dominica Re- surrectionis). Octava Paschae.
H e	Sunday -king'5 '. Avv.; ::cry _s .c(or Sunday of Thomas, also known as v;•cc zuptOE-4.	Sunday <i>in Albis</i> or Sunday of <i>Quasimodo</i> .
H i e	Second week after Easter. Third Sunday since Easter: Sun. some Myrophores.	Second Sunday after Easter: <i>Misericordia</i> .
I V	Third week since Easter. Fourth Sunday since Easter: Paralytic Sunday. Fourth week since Easter. Wednesday: r ₁ :lccsonZAPrilt0CSTI' or rer.aRri T-7ç Mscrcnrsv-rrixon~7;ç.	Third Sunday after Easter: <i>Jubilate</i> .
V o	Fifth Sunday since Easter: Sunday of the Samaritan. Fifth week since Easter.	Fourth Sunday after Easter: <i>Cantata</i> .
V I e	Sixth Sunday since Easter: Sunday of the blind. Sixth week since Easter: Ascension Week (Mhp2(g <i>civaisi,ckp.oç</i>). Wednesday: Easter Apodosis. Thursday: Ascension (â). 'A7jcPtc) by N. S.	Fifth Sunday after Easter: <i>Vocero jucunditatis</i> . Monday, Tuesday, Wednesday, Rogations (<i>litaniae minores</i>) .
7th	Seventh Sunday since Easter: feast of Fathers of the Council of Nicaea. Seventh week since Easter. Friday: Apodosis of ascension day. Saturday of the deceased faithful or 4)uxocs6fix-rov.	Thursday: Ascent of N. S. Sunday in the octave of the Ascen- sion: <i>Exaudi</i> . Thursday: Octave of Ascension.
8th	Pentecost Sunday. Week after Pentecost: I ^{re} week of Mathieu. Saturday: Apodosis of the feast of Pentecost.	Pentecost Sunday. Wednesday, Friday and Saturday of the Four Times.
9th	Sunday of All Saints: First Sunday by Mathieu. End of pentekostarion.	Sunday of the Most Holy Trinity.
	octocchos	
	Monday: beginning of the Lent of apôtres which ends on June 28th.	Thursday: Fête-Dieu (<i>Corpus Donzini</i>). Second Sunday after the Slope-coast.
xc	Mathieu's second Sunday. Sundays of Matthew, 3rd, 4th, etc., until the Sunday before the Exaltation of the Holy Cross exclusively. Maximum number, 17 (onlywhen Easter is 22 March).	Sundays after Pentecost, 3rd, 4th, etc., until Advent.
Before exaltation		
II	Mathieu's last Sunday.	
Ter	Sunday before the Exaltation. September 14: Exaltation of the Holy Cross. !	September 14: Exaltation of the Holy One. cross.

Sundays after exaltation	Byzantine calendar	Latin calendar
I ^{EL}	Sunday after the Exaltation. Luke's first week.	Third Sunday in September. Wednesday, Friday, Saturday of the Four Times.
I I H i e	Luke's first Sunday. Luke's second Sunday. Sundays of Luke 3rd, 4th, etc.	
worth Yod Iv ^e Third Ii ^e	Sunday of the ancestors of Christ.	the ^r Advent Sunday. 2nd Sunday of Advent. 3rd Sunday of Advent <i>Gaudete</i> . Wednesday, Friday, Saturday of Four-Stroke. 4th Sunday of Advent.
T ^{er}	Sunday before Christmas: Sunday of the elders just (*7c7r) ayicov 7. D:746(v). December 25 Christmas Island. Birth of J.-C. From Christmas to Epiphany: Dodekaëmeron or Dodekameron. January: Circumcision, Saint Basil	December 25: Christmas. Birth of J. -C.

(B) LIST OF SAINTS IN THE BYZANTINE CALENDAR

		Different dates among the Latins			Differen t dates among the Latins
Prophet Obadia	19 Nov.		Anastasja the Roman, v.m.	Oct. 29	25 Dec.
Aberkios of Hierapolis	22 Oct.		Anastasia Pharmacolytria . .	Dec. 22	
Abraham the Just	9 Oct.		Anatole, m.	23 Apr	
Abramios, év.	14 Feb.		Anatole of Constantinople .	July 3	
Abramios, monk	29 Oct.		Andrew, Apostle	Nov. 3	
Adrien and Nathalie	26 August	8 Sep.	Andrew of Crete	July 4	
Agapios, m.	20 seven.		André in Grisi	Oct. 17	
Agathange, m.	23 Jan.		André Salos	May 28	
Agathe, y. m.	5 Feb.		Andrew the Stratelate	August	
Agathonikos	22 August		Andronikos, ascetic	Oct. 9	
Haggai, proph.	16 Dec.		Andronikos and Probus, mm.	12 Oct.	
Agnes, y. m.	21 Jan.		Andronikos and Junia, apostles	17 May	
Agrippina, v.m.	23 June		Anne, mother of the T. S. V.	9 Sep.	
Akakios, m.	8 May		— design (active).	Dec. 9	
Akakios of Melitene	Marc		— dormition	July 26	July.
Akepsimas and others	3 ^h Nov		Anne the prophet.	25	
Akindynos and others	2 Nov.		Anthime of Nicomedia . .	3 Sep.	
Alexander, m.	22 Oct.		Anthusa	August	
Alexander of Constantinople	30 August		Antipas, m.	II Apr.	
Alexis, m.	16 June		Antony the Great	Jan. 17	
Alexios the man of God ..	17 March	July 17	Antoine Cauléas de Cons-		
Alypios, m.	27 May		tantinople	Feb. 12	
Alypius the Stylite	26 Nov		Anysia, m.	Dec. 3	
Ambrose of Milan	7 Dec.		Aphraat	Jan. 29	
Amos, proph.	15 June		Apollonios, m.	Dec. 14	
Amphilochios, m.	27 March		Apollo, apostle	Dec. 8	
Amphilochios of Iconium..	23 Nov.		Apostles, the Twelve	3 ^o June	
Ananias, apostle	1 Oct.		Apostles, the Seventy.	Jan. 4	
Anastasius the Persian, m.	22 Jan.		Aquilas, apostle	July 14	

		Different dates at The Latins			Different dates among the Latins
Aquilas (the same and Priscille)	Feb.		Clement of Ancyra	Jan. 23	
Aquilina, m	13		Clement of Rome	Nov. 24	23 Nov.
Archippos Apostle	June 13		Clement of Bulgaria	July 27	
Arethas and others	Feb.		1Pleopas, apostle	Oct. 3	
Arsene the Great	19		Codrat, Apostle	21 Sep	
Arsene of Corfu	Oct. 24		Codrat, m.	7 m	
Arteme, m	May 8		Como and Damien	Oct. 17	27 seven
Athanasius the Great	Jan. 18	2 May	Conon, m.	March 5	
— translation	May 2		Constantine and Hélène, emp.	May 21	
Athos athanasius	July 5		Cornelius the Centurion	13 Sep.	
Athenogen (st), m	July 16		Cornoutos, év. M.	12 Sep.	
Attalus, m	July 25		Crescent, Apostle	July 3	
Autonomos, m	12 Sep.		Crescent, m.	15 Apr	
Auxence of Bithynia	Feb. 14		Cross, exaltation	14	
Babylas, m	4 Sep.		— appearance	7 M ^{sept}	
Bacchos and Serge, mm.	Oct. 7		— procession	I	
Beard, y.m	Dec. 4		Cyprien and Justine, mm.	Oct. 2	26 seven
Barlaam	Oct. 19		Cyr and Jean, mm.	Jan. 31	
Barnabas, apostle	ii June		Cyriacè, y. m.	July 7	
Bartholomew, apostle	II June	24 August	Cyriakos, anach.	29 Sep.	
— translation . .	19, 24 August		Cyril of Alexandria	June 9	9 Feb.
Prophet Baruch	28 Sep.		Cyril of Jerusalem	1. 8 March'	
Basil the Great	Jan. 1	14 June	Cyril the Phileote	Dec. 2	
Basil, ascetic	Feb. 28		Dalmatian, monk	August 3	
Basil of Amasée	26 Apr		Daniel, prophet.	Dec. 17	
Basil, priest of Ancyra	March		'Daniel the Stylite	II Dec.	
Basil of Parion	12 Apr		David of Thessaloniki . .	June 26	
Basilides (st), m.	Jan. 20		Demetrios of Thessaloniki	Oct. 26	
Basiliskos (miscellaneous)	May 22		Dionysius the Areopagite	Oct.	3, Oct. 9
	Io Jan.		Dionysius of Alexandria	Oct. 3	
	July 29		Diodorus, m.	5 Apr	
Bassa and her sons, mm	August		Diomedes, m.	August 16	
Bassien	Io oct.		Dometianos of Melitene . .	Io Jan.	
Bassos	Jan. 20		Dometios, m.	August 7	
Benedict, Abbot	March 14	21 March	Domnikè or Domnina	Jan. 8	
Blaise de Sébaste	II Feb.	Feb. 3	Dorothea of Tyre, m.	June 5	
Boniface	1.9 Dec.	May 14	Eleuthera, m.	Dec. 15	
Boukolos of Smyrna	Feb. 6		— proph.	20	
Callinicos, m.	Dec. 14		Elisabeth the Thaumaturge .	24 Apr	
Callistrates	27 Sep.		Elisha, prophet.	June 14	
Carpos, apostle	May 26		Emilian, m.	July 18	
Carpos and Papylos, mm.	Oct. 13		Emilian of Cyzic	August 8	
Cassian the Roman	Feb. 29		Epaphrodite, apostle	Dec. 8	
Catherine, v.m	Nov. 25		Ephrem, m.	March 7	
Cécile, Tiburce, Valérien,			Ephrem the Syrian	28 Jan	18 June
mm.	Nov. 22		Epicharis (ste), m.	27 Sep.	
Charalampos	Iy Feb.		Epimachos, m.	Oct. 31	
Charitinè, m	Oct. 5		Epiphany of Cyprus	May 12	
Chariton Hegum	28 Sep.		Etienne, protomartyr	27 Dec	26 Dec.
Christine, v m.	July 24		Etienne le Jeune, m.	Nov. 28	
Christodoulos of Patmos . .	March 16			15 e ^{lu} III.	
Christophore, m.	May 9	25 July.	Etienne the Saba ïte		
Chrysanthos and Daria, mm.	March 19	25 Oct.	Eudocje, y. m.	Oct. 28	
Claude or Claudian and Dio-			Eudocimos	1 March	
dore, and others	5 Apr			July 31	

		Differen t dates among the Latins		Differen t dates among the Latins
Eugenie, v.m.	24 Dec.		Hierotheus of Athens	2461 Oct.
Eulampios and mm.	10 Oct.		Hilarion, Abbot	21 Oct.
Euloge of Alexandria	1 Feb.		Hilarion the Younger, hegum. Hilarion, hegum. of Pé-	June 6
Eumenios	18 Sept		lecete	March 28
Euphemia, y. m.	16 .		Hyacinth, m.	July 3
miracle at con-	seven		Hypace of Gangres	March 31
Cile of Chalcedon	li .		Ignatius of Antioch the	20 Dec. i Feb.
Euphrosyne, y.	25		Theo-	29 Jan.
Euplos, deacon, m.	li July.		phore	23 Oct.
Eusebius of Samosate	22 sept.		translation	Dec. 29, Dec. 28
Eusignios	5 !		Ignatius of Constantinople	May 5
Eustathe			Innocents, Saints -	23 August 28
companions,			Irene, y.m.	June
and	20 Sept.		Irénée of Lyon	3 ⁰ May
Eustathe of Antioch	21 ' Feb		Isaac, hegum.	9 May
Eustolia	9 Nov		Isaiah, proph.	17 June
Eustratios	13 Dec.		Isauros and companions, mm	May 14
Eutyches of Melitene	8 May			4 Feb.
Eutyches, ap. and m.	24 Aug		Isidore of Chios	9 Oct.
Eutychios of Constantino-	ust		Isidore of Peluse	3 ⁰ Apr 25 July
ple	6 Apr.		Jacques Alphée, apostle.	23 Oct. i May
Fausta and companions, mm.	6 Feb.		Jacques, brother of Jean ...	March 21
Faustos, ascetic	3		James, brother of the Lord.	Nov. 27
Faustos and Basil, mm.	August		James the Confessor	
Febronia, v. and m.	t 6		James the Persian, m.	21 Apr 19 Sep
Floros and Lauros, mm. . .	Feb		January and her	29 Apr
	25 June		Gien	May 8
Galaction, m.	18			and 27 Dec.
Georges, m.	August		John the	26 Sep'
George of Amastris	5 Nov.		Chaplain	Nov. 12
George the Chozebite	23 Apr		John Chrysostom	Jan. 15
George of Maleus	21 Feb.		translation	Nov. 13 ' Jan. 27
George of Nicomedia	8 Jan.		Jean Climaque	27 Jan.
Gerasimos, Abbot	4 Apr		John Damascene	30 Mar'
Germain of Constantinople	29 Dec		John the Decapolilite	4 Dec. March
Gerontios, m.	4 Mar		John the Forerunner	27
Glyceria, m.	12 May		conception	18 Apr
Golindouch (ste), m.	1 Apr.		birth	Jan. 7
Gordios, m.			take-off	23 Sep.
Gourias, Samonas,	15 Nov.		invention of the chef . •	24 June
Abibos,	23 Nov.		Jeremiah, prophet.	29 August
mm.	20 Nov.		Joachim and Anne	Feb. 24
Gregory of Agrigento	30 Sept.			May 25
Gregory the Decapolite	25 Jan.	May 9		I May
Gregory the Illuminator	10 Jan		Joannikios, abbot	9 sep. Joachim
Gregory of Nazianze	17 Nov.		Joasaph and Barlaam	16 Aug
Gregory of Nysse	2 Nov.		Job the Just	Nov. 4
Gregory the Thaumaturge	27 Dec.		Joel, proph.	August 26
Habakkuk (Avvakum), proph.	18 May		Jonah, prophet.	May 6
Helladios, m.	31 May		Joseph the Hymnographer . .	Oct. 19
Heraclios, m.	10 May		Joseph of Thessalonica	21 Sep.
Hermeios, m.	26 Dec.		Jude, Apostle	3 Apr
Hermogenes, m.	13 Jum.		Julien, m.	July 14
Hermolaos, m.	2 j		another	19 June 28 Oct
Hermilos and Stratonikos,	2 anv.			
mm.	30 May			

		Differen t dates among the Latins			Differen t dates among the Latins
Julienne, v.m.	21 Dec.	16 Feb	Matron (from Thessaloniki)	27 March,	
Justin the philosopher, M.	June 14		Maura and Timothy, m.	3 May	
Justine and Cyprien, mm.	1 Oct.	April	Maximus the Confessor, m.	21 Jan.	
Lazarus the Galesiot	7 Nov.	26 Sep.	— translation	13	
Lazarus the Risen, Saturday before the Palms.	17 Oct.		Melanie the Roman	Aug. 31 Dec.	
— translation	10 Aug		Meletios of Antioch	Feb. 12	
Laurent, deacon, m.	20 Oct.		Memnon	28 Apr	
Leo of Catania	18 Feb.		Mena the Athenian	10 Dec.	
Leo of Rome	18 June	II April	Mena the Egyptian, m.	II Nov.	
Leontios, m.	16 Oct.		Menodore, Nymphodorus and Metrodorus, vv. mm.	10 Sept.	
Longin the Centurion	18 Oct.		Mercury, m.	25 Nov.	
Luke, evangelist	7 Feb.		Constantinople method	June 14	
Luke the Steirist.	11 Dec.		Patara's Method	June 20	
Luke the Stylite	13 Oct.		Metrophane of Constanti- nople	4 June	
Lucie, y. m.	15 June		14		
Lucian of Antioch	3 Aug		Micah, proph.	8 NOV.	29 Sep.
Lucillien, m.	23 Oct.		Michel and Gabriel		
Luppos, m.	19 Jan.		Chones	6 Sept.	
Macarius the Egyptian	1 Aug		Michel de Synades	23 May	
Stiffs	19 Oct.		Modestos of Jerusalem .	Dec. 16	
Macrine, sister of S. Basile ...	3 July		Moses, prophet .	4 Sep.	
Malachi, proph.	2 Jan.		Moses the Ethiopian August	28	
Marnas, m.	16 Sept		Mokios, m.	1 May	
Mandilion of Christ			Myron, m.	17 Aug.	
mm.	June 17		Nahum, proph.	Dec.	
Mark the Evangelist	25 Apr.		Neophyte, d.	21 Jan.	
Marcel the Acemète	29 Dec.		Nestor, d.	Oct. 27	
Marcel d'Apamée	14 August		Nikephoros, m.	Feb. 9	
Marcellin, m.	18 dec.		Nikephoros of Constantino- Ple	2 June	
Marcian and Martyrius, no- thepresidents, mm. Oct.	25 ,		— translation	13 March	
Marcian, priest of Constan- tinople	10 Jan.		Niketas, m.	15 Sep.	
Mary the Egyptian I	Apr.		Niketas of Medikion	3 Apr.	
Marie Théotokos	26 Dec.		Nicolas de Myres	6 Dec.	
— design	9 Dec. ' 8 Dec.		Nicon and disciples, mm	23 March	
— birth	8 Sept.		Nicon "Metanoïte"	26 Nov.	
— entrance to the temple ..	Nov. 21		Olympiad(ste)	25 July	
— annunciation	25 March		Feb. 15		
— dormition	August 15		Onésime	and	
— garment of the Virgin ..	2 July		Nov. 22		
— Belt of the Virgin August	31		Onesiphore and Porphyry, mm.	Nov. 9	
Mary	Magdalene 22		Onuphre	12 June	
July			Oréozèle, m.	July 26	
Marine, y.m.	17 July		Orestes, m.	ro nov.	
Martin of Rome	13 Apr. 12 Nov.		Hosea, prophet.	Oct. 17	
Martinianos	Feb. 13		Pashôme the Great	15 May	
Martyrs, Forty	9 March ro March		Pamphile, m.	Feb. 16	
Martyrs, Forty-two of A- morium	6		Pancharios, m.	25 May	
March Martyrs, Ten thousand of Nico- medite	28 Dec.		Pankratios of Tauromenium, d .	J u l y 9	
Mathias, apostle	9 August 24 or Feb. 25		Pantéléimon, m.	27 July 1	

		Difference nt dates among the Latins		I >ates different among the Latins
Paramonos.....	29 Nov.		Silas, Silvanus, Crescent,	
Paraskevè.....	26 July.		Epainetos, Andronikos, apô-	
Parthenios of Lampsacus .	7 Feb.		Very	30
Patapios.....	8 Dec. I		Silvestre of Rome	Jan. 2 31 Dec.
Paul, Apostle (with S. Peter)	29 June j		Simon the Zealot, apostle....	Io may 28 Oct.
Paul of Constantinople, conf.	6 Nov.		Sisoe the Great	July 6
Paul, hermit	15 Jan.		Sophie, Pistis, Elpis, Agape	17 Sep.
Pelagie, v. m.	4 May		Sophonias, prophet	3 Dec.
Pelagia, penitent	8 Oct.		Sophrone of Jerusalem	II
Pétrone and Charitinè, mm. ..	4 Sept.		Sozon, m.	7 Sep.
Phanourios	27 August		Spyridon of Trimithonte	12 Dec.
Philemon	22 Nov.		Stachys, apostle	II Oct.
Philip, Apostle	14 Nov.	I May	Stylian	Nov. 26
Philip, Deacon	II Oct.		Suzanne, y. m.	Dec. 15
Philogone of Antioch	20 Dec.		Symeon and Anne, proph.	Feb. 3
Philotheos	15 Sept.		Symeon, Bishop of Jerusalem-	
Philuménos, m.	29 Nov.		Lem	27 Apr 18 Feb.
Phocas of Sinope	22 Sept.		Symeon the Persian, m.	March 17
— translation.....	23 July		Symeon Salos.....	21 July
Photine.....	26 Feb.		Symeon Stylite	1 Sept.
Photios of Constantinople	6 Feb.		Symeon Stylite the Younger .	May 24
Photios and Anicet, mm.	12 August		Syncletica.....	Jan. 5
Peter (and Paul)	29 June		Tarasios of Constantinople	25 Feb.
— Chain of s. Pierre	16 Jan. I Aug		Tatiana, v.m.	12 Jan.
Peter of Alexandria	24 Nov.		Terence and Neonilla, mm.	28 Oct.
Peter of Argos	3 May		Terence and Pompey, mm.	June 19
Peter the Athonite.....	12 June		Thaddée Jude, apostle . .	May 20 28 Oct.
Pionios of Smyrna	II March		Thallelaïos, m.	24 Sep.
Plato of Ancyra	18 Nov.		Thecle, y. m.	3
Plato the Studite	4 Apr		Theoctist.....	Sep.
Poemen	27 August		another	Jan. 4
Smyrna polycarp, m	23 Feb. 26 Jan		Theodora of Alexandria, m.	II Sept.
Polychronios, m.	7 Oct.		Theodora, Empress	II Feb.
Polyeucte, m.	9 Jan.		Theodora of Thessaloniki	5 Apr
Porphyrios the mime, m	4 Nov.		Theodore Graptos.....	Dec. 27
Porphyrios of Gaza.....	26 Feb.		Theodore of Edessa	July
Priscilla and Aquila, apostles.	13 Feb.		Theodore the Stratelate	19
Priskos and Nicolas, mm.	7 Dec.		translation	Feb. 8
Probos and Andronikos, mm. .	12 Oct.		Theodore Studite	June 8
Prochoros, Nicanor, Timo-			Theodore Syceote	II Nov.
thee and Parmenas,deacons .	28 July.		Theodore Tiron, 1 ^{er} Saturday	22 Apr
Prokla, Pilate's wife. .	27 Oct.		of Lent and.....	Feb. 17
Proklos and Hilarion, mm. .	12 July.		Theodore Trichinas, ascetic.	20 Apr
Proklos of Constantinople .	20 Nov.		Theodosius the Cenobiarque .	II Jan.
Romain, m.	18 Nov.		Theodosia, v.m.	May 29
Romanus the Melod	1 Oct.		Theodotè.....	July 29
Sabas the Goth	24 Apr		Theodotos of Ancyra	June 7
Sabas the Sanctified	5 Dec.		Theodule, m.	4 Apr
Sabinos, m	16 March		Theopemptos and Theonas,	
Samson the Hospitable	27 June		mm.....	Jan. 5
Samuel, prophet.	20 August		Theophanes Graptos	II Oct.
Sébastien, m.	18 Dec.	20 Jan.	Theophanes of Sigriane . .	12 March
Seven-Dormants of Ephesus .	4 August		Theophanô, Empress ...	Dec. 16
Sévérien, m.	22 Oct.		Theophylact of Nicomedia	March
	9 seven..		Theraponte, m.	May 26

		Different dates among the Latins			Different dates among the Latins
Timothy, apostle	Jan. 22	Jan. 24	Vincent, deacon, m.	Jan. 22	
Timothy and Maura, mm. .	May 3		Xeno.....	Jan. 24	
Titus, apostle.....	August	Feb. 6	Xenophon, m.	Jan. 26	
Titus the thaumaturge	2 Apr		Zechariah, father of the	5 Sep.	
Trophime, m.....	19 Sep.		Zechariah, prophet.	Feb. 8	
Tryphon, m.	Feb.		Zenai, m.	June 6	
Tychon of Amathonte	June 16		Zeno, monk	Iy Feb.	
Varos.....	Oct. 19		Zoe and Hesperos, m.	May 2	
victor, m			Zosimus, m.	June 20	

II Nov

(C) OTHER LITURGICAL INDICATIONS

Acathist: feast of the Acathist, 3rd Saturday before Easter.

Anargyres: SS. Como and Damien; SS. Cyr and Jean.

Easter Apodosis: Wednesday before Ascension.

Epiphany, 9th day, January 14.

the Dormition of the Theotocos, 9th day, August 23.

The Hypapantè, 8th day, February 9.

— The Transfiguration, 8th day, August 13.

The Exaltation of the Holy Cross, Day 8, September 21.

Christmas, Day 7, December 31.

— Pentecost, 7th day, Saturday after the feast.

the entrance of the Virgin to the temple, 5th day, November 25.

Asomates (intangible): SS. Michael and Gabriel and all the angels.

Axion estin", celebrates the II of June.

Councils (feasts of the years):

Nicaea (I), Constantinople (I), Ephesus, Chalcedon: July 16;

2° First Council of Nicaea: Sunday after Ascension (other dates: 7, 26, 26, 29 May);

3° Constantinople (I): May 22 (other dates: May 3, 4);

4° Ephesus: September 9.

5th Council of Chalcedon: II July (miracle of Saint Euphemia for the definition). In addition, it is mainly considered in the feast of July 16;

6' Fifth Council: July 25. Originally the feast concerned only the Council of S36; it was then extended to that of 553

7' Second Council of Constantinople: September 18 (other dates: Sept. 14, Sept. 15);

8" Second Council of Nicaea: I I October (var. 9 Oct.) or Sunday after I I October;

9th Council of the Union (from 920): Sunday between 6 and 12 July.

Diakainèsimos: Eastermaine.

Dodekahemon: the days from Christmas to the Epiphany.

Indiction (beginning of the year): feast day: I er September.

Fasts in addition to the great Lent:

Fasting of the SS. Apostles: I er day: Monday that silits **All Saints' Day** (Sunday after Pentecost).— of the Dormition: I^{er} day: I^{er} August.

— of Christmas or Philip: I er day: November 14 (feast of St. Philip the Apostle).

Notaries (Saints): Marcian and Martyrius.

Orthodoxy (feast of I'): first Sunday of Lent.

Ii

LITURGICAL CYCLE AND FESTIVALS OF ARMENIANS

references. - Mainly. N. NILLES, *Kalendarium manuale utriusque Ecclesiae*, II, Innsbruck, 1897, 556-630. See also Ambr. STAVRINOS, [p-text6Tcc--Dv](#), [xxi.ai](#) crùupovot ?,scToupyi.m., II, Constantinople, 1922, 74-92; N. ADONTZ, The Feasts and Saints of the Armenian Church, in *ROC, XXVI, 1927-1928, 74-104, 225-278* (unfinished work); C. TONDINI DI QUARENGHI, Etude sur le calendrier liturgique de la nation arménien, Rome, 1906 (extrait du *Bessarione*, année X, série II, vol. X, 1906); V. BOLOTOV, Ob armjanskom cerkovnom godé, *Christianskij Vostok*, I, 1912, 267-276.

FIXED

January 6, Theophany (Jan. 5, vigil; 7-13, octave).
 February 14, Purification of the T. S. Virgo.
 April 7, Annunciation.
 September 8, Nativity of the T. S. Virgo.
 November 21, Entry of the T. S. Virgin into the temple.
 December 9, Design of the T. S. Virgo.

Around a fixed day:

Sunday falling on August 15 or the closest to this date (August 12-18): Assumption of the T. S. Virgin.

Sunday falling on September 14 or the closest to this date (II-17 Sept.): Exaltation of the Holy Cross.

ALL OTHER FESTIVALS ARE MOBILE, dependent either on the feast of Easter or on the feasts of Theophany, the Assumption and the Exaltation of the Holy Cross. Because of these various festivals, the liturgical year is divided into eight sections.

Note. - Feasts of saints are excluded on Wednesdays, Fridays and Sundays.

First section: Theophany

January 6: Theophany.

January 13 : Octavian of Theophany.

First free day after the Octave. Birth of S. Jean-Baptiste. Then, in the order of free days, the following saints: Peter of Alexandria; Antony hermit; Emperor Theodosius and the Seven Sleepers of Ephesus; Cyriaque and Julitte; Vahan of Golthan; Alexander, Athanasius and Cyril, Patriarchs of Alexandria; Gregory the Theologian; Tryphon; Blaise and Onésime the disciple of Saint Paul; Silvestre pape and memory of Constantine; Gordian, Polyeucte and Gregory; Eugenie virgin, her father Philippe, her mother Claudine and her brothers Serge and Abdon; Cornelius the Centurion, Symeon's parent of Christ, Polycarp of Smyrna and the Eastern martyrs; Maruthas bishop; Eugene, Macarius, Valerius, Candide and Aquila.

Sundays after Theophany: number varies according to the incidence of the Easter festival.

Antepenultimate: Sunday of the Arachavor. Corresponds to the last Sunday after the Epiphany of the Latins.

Week of the Arachavor, prior fasting, kind of preparation for the great Lent.

Week also known as St. Sergius.

Friday, memory of Jonah's preaching.

Saturday, S. Serge.

Penultimate (Septuagesime of the Latins).

Monday, Feast of the ss. Atomians (s. Atom Grouni and his companions), martyrs.
 Tuesday, Feast of the ss. Souchiasites (s. Soukias and his companions), martyrs.
 Thursday, Feast of the ss. Oskians (s. Oski and his companions), martyrs.
 Saturday, s. Isaac the Great, catholicos of the Armenians.

Last (Sexagesime of the Latins).

Monday, S. Pionius; Mark of Arethusa; Cyril the deacon; Abdas bishop, Hormisdas, Saën, Benjamin, martyrs in Persia.
 Tuesday, ss. Leontians (s. Leontus and his companions), mm.
 Thursday, ss. Vardanians (s. Vardan and companions), martyrs in the number of 36.
 Saturday, the 15th Fathers of the Council of Constantinople.

Second section: Lent

Sunday:

Ier Pun-Parengetan (Creation of Man). Corresponds to the Quinquagésime.
 Monday, Beginning of fasting. Same day as the Greeks.
 Saturday, s. Théodore Tiron.

IIi Fall of Man.

Saturday, s. Cyril of Jerusalem.

IIIe The prodigal son.

Saturday, s. John of Jerusalem.

IV° The infidel bursar.

Saturday, the Forty Martyrs of Sebaste.

Ve The judge.

Saturday, Descent of s. Gregory the Illuminator in the pit.

Sixth The advent for judgment.

Friday, the last day of Lent.

Saturday, Resurrection of Lazarus.

Palm Sunday, said from a Greek word *Eulougoumene*. Popular name: Fête des flowers.

Monday, Memory of the Creation of the World.

Tuesday, the Ten Virgins.

Holy Thursday, Friday, Saturday.

Third section: Easter fifties (Hinounk)

Sunday:

I Sunday of the Resurrection: Easter (Zadig).

Monday, day of the deceased.

Saturday, Decollation of His. John the Baptist.

II Sunday again. The call of nations to faith.

IIIe Green Sunday. Last Supper of the First Church. Feast of the Universal Church.

IV Red Sunday.

Fifth Appearance of the Cross in Jerusalem under Patriarch Cyril.

Sixth Thursday. Ascension of N. S. Jesus Christ.

Seventh Other Palm Sunday (Entry of the Lord into heaven according to the vision of His. Gregory the Illuminator).

Saturday, End of Easter time.

Section Four: Pentecost: Advent of the Holy Spirit

Sunday. Variable number.

IC¹ Sunday of Pentecost. Descent of the Holy Spirit on the Apostles.

II Sunday of Pentecost.

Monday: Feast of the holy Rhipsimites (ste Rhipsimè and companions), martyrs.

Tuesday: Feast of the Holy Gaianites (St. Gaïanè and companions), martyrs.

Thursday: s. John the Baptist and S. Athenogene.

Saturday: Exit from the pit of S. Gregory the Illuminator.

IIIe Feast of the Church of Etchmiadzin.

Monday: ss. Innocents and s. Acace.

Tuesday: Stes Nunie and Mania.

Thursday: ss. Serge and Bacchus; Isaac and Joseph, Armenian martyrs.

Saturday: s. Mocius and s. Codrat.

Iv Sunday of Pentecost.

Monday: s. Epiphany of Cyprus.

Tuesday: ss. Constantine and Helena, emperors.

Thursday: ss. Theodotus the Galatians, Thalelea and Seven Virgin Martyrs of Ancyra.

Saturday: Invention of the relics of S. Gregory the Illuminator.

Fifth Sunday of Pentecost.

Monday: ss. Narses, patriarch, and Khad, bishop.

Tuesday: Daniel and the three children in the furnace.

Thursday: ss. Interpreters Isaac and Mesrob.

Saturday: the prophet Zechariah and His. Onuphre.

Sixth Sunday of Pentecost.

Monday: ss. Tiridat, king, Ashenia son wife and Chosroidoucht his sister.

Tuesday: The sons and nephews of s. Gregory the Illuminator, Aristarchus, Verthan, Hesychius, Gregory and Daniel.

Thursday: The Prophet Elisha.

Saturday: The Twelve Apostles and their Princes Peter and Paul.

Seventh Sunday of Pentecost.

Saturday: Feast of the Ark of God (Ark of the Covenant).

Section Five: Transfiguration

Sunday. Variable number: up to seven (1).

(EIGHTH) Ter Transfiguration of N. S. J.-Ch. — Memory of the appearance of the rainbow.

Monday and Tuesday: Festival of roses.

Thursday: the prophet Isaiah.

Saturday: s. Thaddée apostle and st. Sandushe virgin.

(IX') II Sunday of the Transfiguration.

Monday: St. Suzanne, daughter of the great Vardan.

Tuesday: ss. Cyprien and Justine.

Thursday: Forty-five martyrs and the virgin stes Euphemia and Christina.

Saturday: holy patriarchs Adam, Abel, Seth, Enos, Henoch, Noah, etc.

(Xe) III' Sunday of the Transfiguration.

Monday: ss. Isaac and Joseph, martyrs.

Tuesday: The Twelve Prophets (Minors).

Thursday: s. Athenogene, his ten disciples and five others, martyrs.

Saturday: ss. Antonin and Théophile, Anicet and Photin.

(XIe) Fourth Sunday of the Transfiguration.

Monday: ss. Macchabées, Eleazar, the seven brothers and their mother Samona.

Tuesday: Stes Sophie, Pistis, Elpis, Agape.

Thursday: S. Christophe.

Saturday: the Two Hundred Fathers of the Council of Ephesus.

(x) Last Sunday of the Transfiguration.

Saturday: Dedication of the Church of Etchmiadzin.

Sixth section: Assumption of the T. S. V.

I Sunday. Feast of the Assumption of the T. S. V. (varies 12-18 August).

Tuesday: ss. Joachim and Anne.

Thursday: S. Babylas and his three disciples.

Saturday: the prophet Jeremiah.

II Sunday:

Monday: ss. Priscus, Etienne d'Uln and Abdelmessih.

Tuesday: s. André le Stratélate, s. Callinique and s. Diomedes.

Thursday: ss. Adrien and Natalie, s. Theodore the Stratelate and S. Thyrese.

Saturday: S. Thomas apostle.

(i) When this period has more than four weeks, the feasts of the saints are taken, observing their order, in the period of the Epiphany of the same year. I, the festivals thus transferred are those that could not be celebrated because of the date too close to the Easter festival.

III° Sunday: Monday: the ss. interpreters Mesrob, Elisha, Moses, David, Gregory of Narek, Narses of Romcla, Narses of Lampron.
 Tuesday: the prophets Ezekiel, Ezra and Zechariah father of His John the Baptist.
 Thursday: s. John the Baptist and memory of Job the Just.
 Saturday: the 318 Fathers of the Council of Nicaea.

IV° Sunday: Saturday: Dedication of the Anastasis of Jerusalem.

Section Seven: Exaltation of the Cross

I^{er} Sunday: Feast of the Exaltation of the Holy Cross (varies: II-17 Sept.).

II Sunday: Monday: ss. Marnas and Philectimon and s. Symeon Stylite.
 Tuesday: Stes Febronia and Marina.
 Thursday: ss. Anthime and Irénée bishops.
 Saturday: S. George martyr.

III° Sunday: Appearance of the Holy Cross at Mount Varag.
 Monday: s. David de Dvin et sen. Eulampius and Eulampia.
 Tuesday: ss. Eustace and Theopist and their two sons; stes Hermione and Catherine.
 Thursday: Feast of the Armenian princes Isaac and Hamazasp.

IV° Sunday: Monday: ss. Phocas and Irénée successors of the apostles.
 Tuesday: Stes Thècle and Barbe.
 Thursday: s. Pantaleon, Hermolaus and Euphrasia.
 Saturday: s. Callistrates and his 49 fellow martyrs and S. Lucien.

Ve Sunday: Monday: Invention of the relics of s. Gregory patriarch of the Aghovans and various other saints.
 Tuesday: ss. Ananias, Mathias, Barnabas, Philip, John, Silas and Silvanus.
 Thursday: ss. Dionysius the Areopagite, Timothy and Titus.
 Saturday: ss. Evangelists Mathieu, Marc, Luc and Jean.

VI° Sunday: Monday: s. Longin the Centurion; s. Joseph, husband of the Virgin; Joseph of Arimathea Lazarus and his sisters Marie and Marthe.
 Tuesday: s. Théodore, m.; ss. Zeno and Macarius; Eudoxius and Romulus.
 Thursday: ss. Arethites (Arethas and comp.), mm.; s. Arteme.
 Hismedi: s. Thessaloniki demeter; s. Basilisk, priest m.

VII" Sunday: Invention of the Holy Cross.
 Monday: ss. Anastasius and Varus; Ste Theodota and his sons.
 Tuesday: ss. Hypericites (Hiperic and comp.), mm.
 Thursday: s. Severian of Sebaste; s. Babylas and his 84 disciples.
 Saturday: S. Barlaam of Antioch and the Seven Sleepers of Ephesus.

VIII° Sunday: Monday: s. Etienne év. of Rome and his companions, mm.
 Tuesday: ss. Acepsimas, Joseph, Aithalas, Plato, mm.
 Thursday: ss. Metrophanes, Alexander, Paul, év.; the ss. notaries Marcian and Martyrius.
 Saturday: ss. Michael and Gabriel, and the whole heavenly army.

IX' Sunday: Monday: ss. Melèce of Antioch, Menas the Egyptian and others.
 Tuesday: S. Jean Chrysostome.
 Thursday: ss. Gourias, Samonas, Abibos.
 Saturday: S. Philip, Apostle.

X° Sunday. This Sunday may be missed.
 Monday: Feast of Angels and Archangels.
 Tuesday: Feast of All Prophets.
 Wednesday: Feast of All apostles.
 Saturday: Feast of all old and new saints, known and unknown.

Eighth Section: Advent

- I Sunday (Nov. 15-21). Entrance to Advent or Entrance to the Fifties. Saturday: s. Gregory the Thaumaturge; s. Myron, év.
- II Sunday:
 Monday: Stes Julienne and Basilissa.
 Tuesday: ss. James and Simon, apostles.
 Thursday: ss. Clement of Ancyra and Pancrace of Tauromenium.
 Saturday: S. Andrew, Apostle.
- III Sunday:
 Monday: s. January; s. Mercury.
 Tuesday: ss. James and Themistocles.
 Thursday: the ss. Egyptian fathers Paul, Paul (another), Macarius, Evagre, etc.
 Saturday: s. Nicolas de Myres.
- Iv Sunday:
 Monday: ss. Menas, Hermogenes, Eugraphos; **the poor** volunteers Jean and Alexis.
 Tuesday: ss. Bartholomew and Jude, apostles.
 Thursday: ss. Eustrates, Auxence, Eugene, Orestes, Mardarios.
 Saturday: ss. Jacques de Nisibe; Marug, ascetic; Melèce év.
- Ve Sunday:
 Monday: s. Ignatius the Theophorus.
 Tuesday: ss. Theopemptus and Theonas; Bassus, Eusebius, Eutychius, Basilides.
 Thursday: S. Addée, apostle.
 Saturday: ss. Indes and Domna, Glycerus **and** 20,000 martyrs in Nicomedia.
- Sixth Sunday:
 Monday: ss. Abraham and Choren; Como and Damien.
 Tuesday: s. Iasbust (i. e. Déodat) m.

The last four days before the abstinence of Theophany (which is observed the seven days before the feast) are occupied by the following feasts, in order: 1) The prophet David and s. James, brother of the Lord; 2) s. Etienne, protomartyr; 3) The apostles Peter and Paul; 4) The apostles ss. Jacques and Jean, son of thunder.

Seventh Sunday.

VIII Sunday (sometimes lacks).

The Saturday that is in the days of abstinence is celebrated the feast of s. Basil, from s. Gregory of Nysse, his brother, of S. Sylvestre, Pope of Rome, and of His Excellency Ephrem the Syrian.

The liturgical ordinance described here was already in use in the half century, from après ADONTZ, *op. cit.*, p. 102. There are witnesses of another distribution of feasts where the saints were celebrated on specific days, here according to the Julian months, there according to the Armenian months; cf. F.C. CONYBEARE, *Rituale Armenorum*, Oxford, 1905, app. II, 507-532, and the article cited by Adontz. As for the *Synaxaire* (so called) of *Ter Israel* (xme century) (PO, tt. 5, 6, 15, 16, 18, 19, 21), it represents a writing in accordance with the Roman calendar, composed that it was at a **time of religious union of Cilician Armenia with the Roman Church** (first third of the xive s.); cf. P. PEETERS, Pour l'histoire du synaxaire arménien, *AB*, 30, 1911, 5-26; N. ADONTZ, Note sur les synaxaires arméniens, *ROC*, 24, 1924, 211-218; see Sirarpie DER NERSESSIAN, Le synaxaire arménien de Grégoire VII d'Anazarbe, *Mélanges Peeters*, II, 261-285, **composite synaxaria where are** marked, with the Armenian saints, the Greek saints and the Latin saints.

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COPTIC LITURGICAL CALENDAR

references. - VILLECOURT, *Le Muséon*, 1923, 1924, 1925; N. NILLES, *Kalendarium manuale utriusque Ecclesiae*, II, Innsbruck, 1897, 692-724; *PO*, X; MAY, *SVNC*, IV, 14-34; A. BASSET, Le synaxaire arabe jacobite, in *PO*, tt. I, III, XI, XVI, XVII, XX; E. TISSERANT, Le calendrier d'Abou'l-Barakât, in *PO*, t. X.

A) SUNDAY CYCLE

The Coptic liturgy knows no other Sunday cycle than the one that rolls around Easter; it begins with Lent and ends at Pentecost. The other Sundays of the year are related to the months: 1^{er}, 2nd, 3rd, 4th **Sunday** of thot; 1, 2nd, 3rd, 4th Sunday of paopi, etc.

In the following description of the Paschal Sunday cycle, we include the fasting days of the Ninivites and the week of Heraclius, the date of which depends on the approach of Lent.

Sundays before Easter

Xe Sunday before Easter (= Sunday before the Septuagesime).

Monday, Tuesday, Wednesday: fasting of the Ninivites.

Thursday: Passover of the Ninivites.

Ninth Sunday before Easter (= Septuagesime).

VIII Sunday before Easter (= Sexagesime). Sunday of the Apocréo.

Week of fasting of Heraclius. This week is sometimes also considered the first week of Lent. *Le Muséon* 39, 1925, 262; MAY, *SVNC*, IV, 24-25.

1^{er} Sunday of Lent (= Quinquagésime).

Monday: beginning of the great fast.

II e-Ve Sundays of Lent.

Sixth Sunday: Sunday of baptism.

Saturday of Lazarus.

Seventh Sunday. Palm Festival; feast of the Olive Tree.

Passion Week.

Great Thursday: the new alliance.

Great Friday.

Saturday of joy.

Easter Sunday. Feast of the Resurrection.

Sundays after Easter

1^{er} Sunday. Octave of Easter. Thomas Sunday. First Sunday of the fifties. Sunday of Sundays.

Second-Fifth Sundays after Easter, said Sundays before Pentecost.

Ascension Thursday.

Sixth Sunday after Easter, before Pentecost.

Sunday of Pentecost.

Monday: beginning of the fast of the Apostles which must end at their feast on June 29.

Some start this fast on the Monday of the following week.

Fasting of Our Lady, from 1^{er} Ines Ori (July 25) to 22 Illés Oni (August 15).

B) FESTIVALS

Fixed Feasts of the Lord

Annunciation: 29 phamenot (March 25).
 Nativity of Our Lord 29 koiak (December 25).
 Circumcision of Our Lord: 6 tobi (1^{er} January).
 Epiphany of N. S. - Baptism of N. S.: II tobi (January 6).
 Entry of N. S. to the Temple: 8 méchir (February 2).
 Transfiguration of N. S.: 13 mesoli (August 6).
 Feasts of the Cross: 17 thot (September 14) and Io phamenot (March 6).
 Entry of N. S. in Egypt: 24 pachons (May 19).

Feasts of the Blessed Virgin

Conception by Anne: 13 koiak (December 9).
 Nativity: Io thot (September 7).
 Entrance to the Temple: 3 koiak (November 29).
 Annunciation: 29 phamenot (March 25).
 Dormition: 22 meson (August 15). Alias, 16 mesori (August 9), 21 tobi (January 16).
 Brief: 21 tobi (January 16).
 Feast of the beginning of the year: Naurouz I thot (August 29)
 Beginning of the prayer of the waters 12 paoni (June 6)
 End of the prayer of the waters 8 paopi (October 5)

Saints

Abraham the Patriarch	28 mesoli (August 21)
Haggai, prophet	20 koiak (Dec. 2)
Andrew, Apostle	4 koiak (Nov. 3)
Anne, mother of the S. V.	I mesori (July 25)
Antony the Great	22 tobi (Jan. 16)
Athanasius of Alexandria	7 pachons (May 2)
Bacchus and Serge	Io paopi (Oct. 7)
Beard (ste)	8 koiak (Dec. 4)
Barnabas, ap.	21 koiak (Dec. 17)
Barsauma the Syrian	9 méchir (Feb. 3)
Barthélemy, ap.	1 thot (August 29)
Basil of Caesarea	6 tobi (1 ^{er} Janv.)
Basilides	II Thot (Sept. 8)
Cleophas	1 athor (Oct. 28)
Como and Damien	22 athor (Nov. 18)
Cornelius the Centurion	23 athor (Nov. 19)
Cyril of Jerusalem	22 Phamenot (March 18)
Cyril of Alexandria	3rd (June 27)
Daniel prophet	23 phamenot (March 19)
Prophet	David 3o koiak (Dec. 26)
	1 2 a o p i
Alexandrian demetrius	^p 12 phameno ⁹ t(8 ^h March)
Demetrius of Thessaloniki	29 paopi (Oct. 26)
Dionysius of Alexandria	3 thot (August 31)
Dionysius the Areopagite	23 paopi (Oct. 20)
Alexandria dioscore	7 th (Sept. 4)
Elijah prophet	6 tobi (1 ^{er} Jan.)
Elisha prophet	20 paoni (June 14)
Ephrem the Syrian	7 tobi (Jan. 2)
Epiphany of Cyprus	17 pachons (12 May)
Etienne, protomartyr	I tobi (Dec. 27)
— invention	15 thot (Sept. 12)

Euphemia	19th (Sept. 16)
Ezekiel, prophet	5 pharmuti (March 31)
Gabriel, archangel	22 koiak (Dec. 18)
Georges	23 pharmuti (18 April)
Gregory of Nysse	17 paopi (Oct. 14)
Gregory the Thaumaturge	21 athor (Nov. 17)
Gregory the Theologian	24th (Sept. 21)
Habakkuk, prophet	24 pachons (May 19)
Enoch (assumption of)	24 epip (July 18)
Hilarion	24 paopi (Oct. 21) or 11 pachons (May 6)
Apa Hor	3 pachons (April 28)
Ignatius of Antioch	24 koiak (Dec. 2)
Isaiah, prophet	6th th (Sept. 3)
Jacques, son of Zebedee, ap.	5 pachons (April 3)
James, brother of the Lord	26 paopi (Oct. 23)
James, Patriarch of Antioch	10 paopi (Oct. 7)
James the Intercessor	27 athor (Nov. 23)
John, ap. and evo	4 tobi (Dec. 3)
John the Chaplain	16 pachons (May 11)
Jean-Baptiste, design	14 paopi (Oct. 11)
nativity	26 th (Sept. 23)
take-off	30 paoni (June 24)
invention of the chef	2 thot (August 29)
invention of the body	30 méchir (Feb. 24)
John Chrysostom	2 paoni (May 27)
John of Jerusalem	12 pachons (May 7)
Jeremiah, prophet	17 Athor (Nov. 13)
Job the Just	3 pharmuti (March 29)
Prophet Joel	5 pachons (April 30)
Jonah, prophet	2 pachons (April 27)
Joshua	21 paopi (Oct. 18)
Jude, Apostle	25 th (Sept. 22)
Julian, martyr	4th th (1 st Sept.) and 26th peacock (2nd June)
Lazarus the Resurrected	25 paoni (June 19)
Longin	23 pachons (May 18)
Luke, evangelist	27 pachons (May 22)
Macarius the Great	23 epip (July 17)
Mark, evangelist	22 paopi (Oct. 19)
Madeleine	27 phamenot (March 23)
Mathias, apostle	30 pharmuti (April 25)
Matthew, apostle and evangelist	28 epip (July 22)
Mena	8 phamenot (March 4)
mercury	12 paopi (Oct. 9)
Michael, archangel	15 athor (Nov. 11)
Moses, prophet	25 athor (Nov. 21)
Nahum, prophet	12 athor (Nov. 8)
Nicholas	8th th (Sept. 5)
Onuphre	5 koiak (1 st Dec.)
Hosea, prophet	10 koiak (Dec. 6)
Pashome the Great	16 paoni (10 June)
Paul the Anchor	27 koiak (Dec. 23) and 26 méchir (Feb. 2)
Paul of Constantinople	14 pachons (May 9)
Fathers (318) (of Nicaea)	2 méchir (Jan. 27)
Philip, Apostle	5 paopi (Oct. 2)
Philip the Deacon	9 athor (Nov. 5)
Peter of Alexandria	18 athor (Nov. 14)
Peter the Iberian	14 paopi (1 st Oct.)
Pionius	29 athor (Nov. 25)
	koiak (Nov. 27)
	2 phamenot (Feb. 26)

Poemen	koiaak (Nov. 27); zte
Polycarp	amaze. méchir (Feb. 23)
Procopius	mesoliri (August 7)
Rhipsimè and his companions	thot (Sept. 26)
Schenoudiarchimandrite	and 23 epip (July) ¹ and 17)
Serge and Bacchus	paopi (Oct. 7)
Severus of Antioch	méchir (Feb. 8)
Symeon Stylite	pachons (May 24)
Symeon the Old Man	Méchir (Feb. 2)
Sisinnius, martyr	pharmuti (April 21)
Thaddeus apostle	epip (June 26)
Thecle	8 koiak (Dec. 4) and 25 (July 19).
Empress, Theodora	16 Mèchir (Feb. 10)
Theodore the Great, martyr	20 epip (July 14)
Emperor Theodosius	23 Tobi (Jan. 17)
Theophilus of Alexandria	18 paopi (Oct. 15)
Thomas, Apostle	26 pachons (May 21)
Timothy of Alexandria	18 thot (Sept. 15)
Timothy Apostle	26 pharmuti (1 ^{er} April)
Zechariah, father of S. J.-B.	7mesori (July 31)
"The Forty Martyrs of" Sebaste	23 •and 27 Tobi (Jan. 18 and 8 22)
"The Three Children in the Io	23 thot (Sept. 5)
The Seven Stiffs	Furnace athor (Nov. 19)
The Seven Young Men of Ephesus (Seven Sleepers)	8 Mesoliri (August 1)
The Holy innocent Children	24 pharmuti (19 April); 20 mesoli (August 13)
The Four Intangible Animals of Revelation	3 Tobi (Dec. 29)
	8 athor (Nov. 4)

For more information, see synaxes, menologies, Consult tables, PO, calendar, published in *Po.* X, 230-242, 279-286, and XX, 750-789.

Note. - In the years following an intercalary year, the transcription of Roman dates must be carried to the next day, from August 29 to February 29. E.g.: the 19thth of the year 696 of the year of the martyrs is 17 September 981 instead of the 16th, and the 14th méchir is 9th February 982 instead of the 8th (the year of the era of martyrs begins on 29th August, common year; 30 August, year following the intercalary year).

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LITURGICAL CALENDAR OF THE JACOBITE SYRIANS

references. - Synaxes in *PO*, X; Evangelists: MAI, *SVNC*, IV, Part 2, 61-71; N. NILLES, *Kalendarium manuale utriusque Ecclesiae*, II, Innsbruck, 1897, 642-644; A. BAUMSTARK, *Festbrevier und Kirchenjahr der syrischen Jakobiten*, *passim*.

A) SUNDAY CYCLE

I. Sunday cycle dependent on Christmas

Eight Sundays before Christmas, the first of which, to ensure this number, must undoubtedly, as in the Nestorians, be the Sunday occurring from *October 30 to November 5*, and not, as Nilles says, the Sunday closest to November.

Originally, selon all probability, these eight Sundays were distributed in:

- I—IV Sundays of the Dedication, and
- I—IV Sundays of the Annunciation.

In the following, there were three Sundays of the Dedication and five of the Annunciation:

- I—III Sundays of the Dedication;
- I of the Annunciation. Announcement to Zechariah;
- II⁰ Sunday: Announcement to Mary;
- Ille dimanche : Visitation of Mary to Elisabeth ;
- Ive Sunday: Birth of s. John the Baptist;
- Fifth Sunday: Revelation to His. Joseph.

This is the state given by most manuscripts.

Later, the Sundays of the Dedication were reduced to two, and the Sundays of the Annunciation were raised to six. The sixth Sunday was devoted to the Expectation of the birth of the T. S. Virgin. This is the state indicated by Nilles and *PO*, X, 98, 102.

- December 25th: Christmas.
- December 26: The Mother of God.
- December 27: s. Etienne.
- December 28: the ss. Apostles.
- December 29: The Holy Innocent Children.
- December 31: The Holy Himyarite Martyrs.
- Ler Jan.: the Holy Fathers Ignatius, Basil, Gregory.
- Jan. 6: Epiphany of N.-S.

The three days after the Epiphany: fasting of the Virgins.

- Jan. 7: s. John the Baptist.

Sundays after the Epiphany. At least three, eight at most.

- Wednesday before antepenultimate Sunday, the three holy ecumenical councils (*PO*, X, 38).

Antepenultimate Sunday after the Epiphany.

- Monday, Tuesday, Wednesday: fasting and rogation of the Ninivites or fasting of indiction.

- Friday: memory of the deceased priests.

Penultimate Sunday after the Epiphany (= Septuagesimus).

- Friday: memory of all the faithful deceased.

Last Sunday after the Epiphany.

- Friday: memory of the faithful who died abroad.

Variant in *PO*, X, 125, for these last three Sundays:

1. Memory of the Mother of God, the saints and the deceased;
2. Memory of the holy priests;
3. Memory of all the faithful deceased from Adam to today.

2. Sunday cycle dependent on Easter

- Ter Sunday of Lent (= Quinquagésime): Wedding of Cana.
 Monday: fasting begins.
 Saturday: s. Ephrem; s. Théodore Tiron.
- Second Sunday of Lent: healing of the leper.
- Third Sunday of Lent: healing of the paralytic.
- Fourth Sunday of Lent: healing of the servant of the centurion.
 Variants: the Chananean (*PO*, X, 126, and Baumstark, 222); healing of the deaf-mute (Baumstark, 222).
 Wednesday: mid-Lent: Exaltation of the Sainte-Croix.
- Fifth Sunday of Lent: resurrection of the son of Naïm's widow. Variant: the man who descended from Jerusalem to Jericho.
 Saturday: the Forty Martyrs (in some places).
- VI th Sunday of Lent: the blind-born.
 Friday of the Forty Martyrs (in some places). Friday of the end of the fast. temptation of N. S.
- Palm Sunday. It is also called the Passover.
 Week of the Passion of the Lord.
 Thursday: Passover of the Holy Mysteries.
 Great Friday of the crucifixion.
 Saturday of the Annunciation.
- Resurrection Sunday.
 White week. Egg Week.
 Friday: feast of the confessors.
- Sunday again. Sunday of white clothes. First Sunday after the Resurrection.
 Thursday: S. Jacques the Interpreter.
- Second, III th, Iv Sundays after the Resurrection.
 Wednesday: Mesopotecôte.
- Fifth Sunday after the Resurrection.
 Thursday: Ascension of Our Lord.
- VIS Sunday after the Resurrection. Memory of all Orthodox Fathers.
 Thursday: memory of Mar Barsôma.
 Saturday: the deceased faithful.
 Pentecost Sunday. Beginning of the week (weeks) of the Apostles.
 Monday: beginning of the fasting of the Apostles; S. Mar Aaron.
 Gold Friday.
- Sunday of all saints. First Sunday after Pentecost.
- III-Fifth Sundays after Pentecost.
 Friday of the seventh week after Pentecost: Feast of the Holy Apostles, end of their fasting.
- I—Sixth Sundays after the Week of the Apostles.
- I Sunday of the fast of Ananias (Bet-Anania, enigmatic designation).
 Monday: beginning of the fast of Ananias.
- II ('-SEVENTH) Sundays of the fast of Ananias. The Sundays of the fast of Ananias take the name of
 Sundays after the Cross, starting with the Feast of the Cross, September 14. The latter are at number of 6 or 7.
- I—Sixth (SEVENTH) Sundays after the Cross.

Note. — In some manuscripts, the fasting of the Apostles ends with the feast of the Apostles on June 29; we also meet the fasting of the Assumption from ter to August 15.

B) FESTIVALS

Fixed Feasts of the Lord

Annunciation to Mary	March 25
Christmas	25 Dec.
Epiphany	Jan. 6
Meeting of the old man Simeon	2 Feb.
Transfiguration	August 6
Cross (Apparition of the)	6 May
— (Discovery of the)	May 22, Sept. 13.
— (Exaltation of the)	14 Sep.

Fetes of the Blessed Virgin

Entrance to the temple	21 Nov.
Annunciation	25 March
Nativity	8 Sept.
Death of the Blessed Virgin	15 August
Memory of the Holy Mother of God	26 Dec. 15 Jan.
	May 15, Sept. 15

Saints

Abgar	May 14
Abraham(Patriarch)	August 21 or 22
Addai, Apostle of Edessa	May 14
Aggai, apostle of Edessa	10 Jan.
Alexander of Alexandria	27 April
Andrew, Apostle	May 16, June 3
Anthime of Constantinople	20 July.
Antony, abbot	Jan. 17
Athanasius of Alexandria	Ter May, 11 Sept.
Babylas of Antioch	Jan. 23, Sept. 22
Bacchus and Serge	3 mai, 1 ^{er} sept.
	Oct. 7
Beard (ste)	4 Dec.
Barthélemy April	2, 11 June
Basil	1st Jan.
Bassa and her children	28 August
	21 May 1 ^{er} August
	Nov. 3
Constantin	April 6, June 16
	14 August, Oct. 12
Como and Damien	Cyriaque and Julitte 15
	July.
Cyril and Timothy, patr. of Alexandria	30 July.
Damien, see Como	
Daniel and the Three Children	June 3, August 22
Demetrioanos	10 nov.
Dionysius the Areopagite	Oct. 3, Dec. 3
Alexandria Dioscore	30 July, Sept. 4
Dometios	July 5, Sept. 7
Elijah, prophet	April 3, July 20.
Elisha, prophet	14 and 27 June
Ephrem, Syrian doctor	1 Feb.
Epiphany of Cyprus	12 May
Etienne	27 or 28 Dec.
Euphemia (ste)	16 Sept.
Eusebius of Samosate	22 June
Flavian of Antioch	14 Nov.
Gratian, Emperor	Nov. 14
Gregory the Thaumaturge	30 June, 27 Sept.
Gregory the Theologian	25 Jan.
Helena, Empress	on August
Honorius, Emperor	10 nov.
Ignatius of Antioch	1 ^{er} Jan., 17 Oct.
James, brother of the Lord June	20, Dec. 28.
James and John, Brothers, Apostles	May 7
Jacques d'Edesse, Baradeus	31 July.
Jacques d'Edesse, the Interpreter	31 May
James l'Intercis	27 Nov.
Jacques de Nisibe	May 13, August 14
Jacques de Saroug	29 Nov.
John and James, brothers, apostles	May 7
John of Antioch	17 Dec.

John the Baptist	Dec. 15, Jan. 7
— (birth)	June 24
— (decollation)	August 29
— (invention of the chief)	Oct. 26
John Chrysostom	Jan. 27, Sept. 13.
Jean de Qenneshré	13 Jan.
Jean de Tella	6 Feb.
Job the Patriarch	9 August
Julian, martyr	21 June
Julian, Patriarch	8 July.
Justine (ste)	June 15
Leontius	18 June
Lucien, martyr	24 Oct.
Macchabées	ter August
Mark, Evangelist	April 25
Marouta of Tagrit	2 May
Martyrs (Forty)	on Saturday March 7-14
Himyarite Martyrs	31 Dec.
Méléce of Antioch	22 Sept.
Mena	22 Oct.
Patriarchs Abraham, Isaac, Jacob	August 21 or 22
Paul, apostle	ii Jan.
Pelagia (ste)	8 Oct.
Fathers (the 150) and Theodosius, emperor	18 Jan.
Fathers (the 318) and Constantine	3 Nov.
Philip and Bartholomew, Apostles	April 2
Philoxene of Mabboug	16 August
Peter and Paul	June 29, Sept. 7.
peter of Alexandria May	Nov. 22
Stone of Callinicé patr. of Antioch	29, Nov. 25
peter " The Iberian "	22 April
Polycarp	27 Nov
Porphyry of Antioch	3 Dec.
Proclus of Constantinople	one ^r Dec.
Procopius	22 Dec.
Rabboula of Edessa	8 July
Romanus	8 August
Samona, Gouria and Abib	Nov. 18
Serge and Bacchus	15 Nov
Severus of Antioch	May 3, 1 ^{er} sept.
Shabi	Feb 8
Simon, Apostle	August 24
Symeon, Stylite	Io May, June 30
Thecle(ste)	July 27, Sept. 2.
Theodore of Samosate	23 or 24 Sept.
Theodosius of Alexandria	ii sept.
Theodosius the Great	20 July.
Theodosius the Younger	18 Jan.
Thomas, Apostle	30 July.
Zechariah, prophet	July 3
Zechariah and Elisabeth	July 9, Sept. 25.
Zacchaeus the Publican	16 Dec.
	25 August

For more information on the saints of the Jacobite Syrian Church, see the Synaxarias published in *PO*, X, by consulting the alphabetical table, *ibid.*, 135-151.

V

LITURGICAL CALENDAR OF THE NESTORIAN SYRIANS

references. - ELIE de Nisibe, *Opus chronologicum*, ed. Chabot, *pars posterior (versio)*, 151-152 and painting; N. NILLES, *Kalendarium manuale utriusque Ecclesiae*, II, Innsbruck, 684-688. N. PIGOULEWSKI, Leningrad Biblical Syriac Manuscripts, *Rev. biblica*, 46 (1937) and 47 (1938) see mss. XVIII, XIX, XXI, XXII, where are indicated in detail the scriptural readings of the liturgical cycle.

A) SUNDAY CYCLE

The liturgical cycle includes a double Sunday cycle: one dependent on Christmas, the other dependent on Easter. The latter continues by overlapping on most of the previous one.

t. *Sunday cycle dependent on Christmas*

I^{er}-IV^e Sundays of **the Entrance** or *Dedication*. The first Sunday is the one that falls from October 3 to 5 November.

I^{er}—IV^e Sundays of **the Annunciation**. Following the previous ones.

Christmas: December 25.

Epiphany: January 6.

Sundays after the Epiphany: 3 at least, 8 at most.

Antepenultimate Sunday after the Epiphany, called *Sunday before the fasting of the Ninivites* Sunday before the Septuagésime).

Monday, Tuesday, Wednesday: fasting of the Ninivites.

Thursday: Thanksgiving.

Sunday penultimate after the Epiphany (= Septuagesime).

Last Sunday after the Epiphany (= Quinquagésime).

2. *Sunday cycle dependent on Easter*

This cycle is characterized by a distribution of seven sets of seven weeks! each: Lent, Easter time, fasting of the Apostles, summer, fasting of Elijah, autumn, fasting of Moses. As we see, fasting and non-fasting times are alternative.

I^{er} dimanche du jeûne or Dimanche de l'entrée du jeûne (= Quinquagésime).

Monday: fasting begins.

Second-Sixth Sundays of fasting.

Hosanna Sunday.

Easter Thursday.

Friday of the Passion and mystery of Easter.

Great Saturday.

* *

Easter Sunday. Resurrection Sunday.

Second-Seventh Sundays of the Resurrection.

ascension.

Sunday after Ascension.

*

* *

Pentecost Sunday. First Sunday of the Apostles.
Monday: beginning of the fast of the Apostles (7 weeks).
Gold Friday.

II^e-VII^e Sundays of the Apostles.

Seventh Week of the Apostles.

Friday of the end of the Week of the Apostles. Memory of the 72 disciples.

*

Sunday of the completion of the Week of the Apostles. Feast of the 12 Apostles.

This Sunday is called Nosardil (= new year). First Sunday of the summer.

Friday of the beginning of the summer week. s. Jacques de Nisibe.

II^e-V^e Summer Sundays.

Fifth Friday of summer: S. Samonas and his sons martyrs.

Sixth Sunday of summer.

Sixth Friday of summer: S. Raban Moses of Beth-Sajara; S. Simeon Barsabae and the

Fathers crowned with him.

Seventh Sunday of summer.

Seventh Friday of summer: S. Kardagh, martyr.

*

I^{er} Sunday of Elijah. Sunday of the entrance to Elijah's fast (7 weeks).

Friday: s. Bab, catholicos.

Second-VIIth Sundays of Elijah. After the feast of the Invention of the Cross, Sundays are also called

Sundays of invention or Sundays after the Cross and are counted I, II...

*

I^{er}-VIIth Autumn Sundays (I call them so for lack of having met another name).

*

I-VII Sundays of Moses, which, depending on the occurrence, take mainly the name of Sundays of the Dedication, of the Annunciation, of Sundays after Christmas, Sundays after the Epiphany.

Fasting of Moses (in principle 7 weeks, but that of Advent in timent place).

The extreme dates of the last Sunday of Moses are 10 January and 11 February.

*

The weeks, in varying numbers, that are between the last Sunday of Moses and the Sunday of the entrance to the fast are called *Banana* (name of uncertain meaning).

Note. — In the description of Nilles, the septenary of The Sundays of Moses is carried over to the previous septenary; this certainly represents a later stage.

B) FESTIVALS

Fixed Feasts of the Lord

25 kânûn I (December 25): Nativity of Our Lord.

6 kânûn II (January 6): Epiphany.

2 Shebât (February 2): N. S. enters the temple.

6 ab (August 6): Transfiguration of N. S. on Mount Thabor.

13th Ilûl (September 13): Feast of the Cross.

Fixed Feasts of Saints

teshrin I (10th October): s. Serge.

4 kânûn II (December 4): St. Barbara.

7 adâr (March 7): the Forty-Martyrs.

24 nisan (April 24): s. Georges.

15 iyâr (May 15): N.D. Marie who protects the ears.

3 tammfîz (July 3): S. Thomas, apostle.

15 tammûz (July 15): s. Cyriaque.

15 ah (August 15): Notre-Dame Marie.

^{2nd} Sunday of teshrin I: s. Photi or Phétion (in Nilles, Oct. 25).

^{3⁰} Sunday of ticino I: s. Simeon.

Friday after the Nativity of N. S.: Our Lady Mary.

er Friday after the Epiphany: S. Jean-Baptiste.

ter Monday after the Epiphany: Rogation of the Virgins (or fasting of the Virgins).

Fridays after the Epiphany are reserved for the commemoration of the main saints. *The ordo* varies according to the greater or lesser number of Fridays preceding Lent.

If there are four, we celebrate in the first: S. John the Baptist, S. Etienne and Mar Abba; in the second, S. Peter and S. Paul and the Evangelists; in the third, the Greek and Syrian doctors; in the fourth, the sons of Adam (that is to say, the memorial of all the deceased faithful).

If there are five, we celebrate in the first: S. John the Baptist; in the second, S. Peter and S. Paul and the Evangelists; in the third, S. Etienne and Mar Abba; in the fourth, the Greek and Syrian doctors; in the fifth, the sons of Adam.

If there are six, we celebrate in the first s. John the Baptist; in the second, s. Peter and S. Paul and the Evangelists; in the third, s. Etienne; in the fourth, the Greek and Syrian doctors; in the fifth, Mar Abba; in the sixth, the sons of Adam.

If there are seven, the first, S. John the Baptist, is celebrated; in the second, S. Peter and S. Paul; in the third, the Evangelists; in the fourth, S. Etienne; in the fifth, the Greek and Syrian doctors; in the sixth, Mar Abba; in the seventh, the sons of Adam.

If there are eight, we celebrate in the first, S. John the Baptist; in the second, S. Peter and S. Paul; in the third, the Evangelists; in the fourth, s. Etienne; in the fifth, the Greek doctors; in the sixth, the Syrian doctors; in the seventh, Mar Abba; in the eighth, the sons of Adam.

If there are nine, it's the same series for the first seven Fridays. In the eighth, the Forty Martyrs are celebrated, and in the ninth, the sons of Adam.

Vi

MAIN MUSLIM HOLIDAYS

i Moharrem	New Year
10 — Murder of Hussein	
II Rebi I Holy	Night
12 -	Birth of the Prophet
23 —	Death of the Prophet
8 Djumada I Birth of	Ali
15 — Ali's death	
20 -	Capture of Constantinople
i Djumada .II Appearance of Gabriel to	Mohammed
2 - Death of Abu Bekr	
9 — Birth of Abu Bekr	
20 - Birth of Fatima	
t Redjeb	Construction of the Ark
5 —	Night of the Prophet's Conception
27 —	Night of his ascent to heaven
3 Shaban	Birth of Hussein
15 —	Night of the test
Ramadhan	Fasting Month
19 — Conquest of Mecca	
27 —	Night of Power
1-3 Shawwal	Sheker Bairam, end of fasting
4 Dju-l-kade The Seven.....	Sleepers
10-13 Dju-l-hidje	Kourban Bairam

HISTORICAL LISTS

(A) BYZANTIUM

- I. — The Consuls.
- II. — Roman emperors.
- III. — Greek emperors.
- III *bis*. — Byzantine dynasties.
- IV. - Prefects of the Praetorian Court.
- V. — Greek Emperors of Trebizond.
- VI. — Greek emperors and despots of Thessaloniki.
- VII.— Greek despots of Epirus.
- VIII.— Dukes of Neopatras of the angel family.
- IX. — Greek despots of Morea (Mistra).

LES CONSULS

Since Gaius Calligula (year 37), emperors, even when they have already assumed it once or several times, take the consulate at their advent, either in the same year in which they come to power, or most often in the following year, rarely in the second **year following the** advent.

Since Maximinus (in 236), it can be seen that the emperors regularly take the consulate **on January 1 after the** accession (except Julian, who was already consul the same year he became emperor).

Since Diocletian, consuls have had only honours, the main one being to give their name to the year for which they were elected. That is why we soon see the consulate conferred on imperial children. This took place for the first time for Jovian's son, then in infancy.

In the list below, we note, from 532, a double way of dating the post-consulates: the old style (*modus marcellinianus*), **where the first year p.c.** is the one following the year of the consulate; the new style (*modus victorinus*), **where the first year p.c.** is the same year of the consulate.

We stop the lists when Justinien dies.

For the following years until the disappearance of the consulate, one will consult the study of E. Stein, *Post-consulate* and *L'Épigraphique* opE.:iv., Mélanges Bidez, 1933-1934, 869-912, and the list of post-consulates drawn up by Degraisi up to 613.

Under Emperor Justin II (November 15, 565-Oct. 5, 578), dating by post-consulates was practiced in various ways. Justin II took consulat in 566, and a second time in 568. According to the sources, post-consulates are counted sometimes from the first consulate for the whole reign, sometimes starting again from the second consulate. And, in both cases, they are counted, either in the old style, or in the new style. Yet another dating can be seen during Justin's reign. Because of the proximity of its advent to the 1 of January, some dataires have united and confused the year of the reign with that of the consulate, considering it as an imperial dignity renewing itself every year, like the *tribuniciana potestas* of the High Empire: hence the formula: (30cm. Xsta.ç za). 1:); -cy.7E.-iy.t: or *imp. and cons.*

Under Tiberius Constantine (6 October 578-14 August 582), this last formula appears in isolation: in 580 (r4G.."). zci.; xx; :177.0Czziog). In the other testimonies, it is the post-consulate that is counted and the computation knows both styles, old and new.

Under Mauritius (14 August 582-23 Nov. 602), the duality of style remains. It seems, however, that this emperor sought to make it disappear. He did not assume his consulate of accession on 1 January⁵⁸³, but only at the end of that year on December 25. In this way, this end of the year was to be valid for his year of consulate, and the following year 584 from 1 January **became the first post consulateum**. Unification was not done completely, because, instead of counting 584 for the first year of consulate, we see dissents of two kinds, one where the year 584 is the second year *after consulate*, others where it is taken for the very year of the consulate. Mauritius

took the consulate a second time on 6 July 602, prescribing for the end of the year the dating: *et consulatu eiusdem piissimi domini nostri secundo*. On November 22 of the same year 602, he fled before the insurrection of Phocas.

Phocas (23 Nov. 602-5 Oct. 610) followed Mauritius' example by celebrating its consulate, not on January 603, but in December 603. The known consular datings of this reign, namely, from the years 604, 605, 608, uniformly apply the style of Mauritius, based on the ancient style. They are respectively designated I, 2nd and 5th years of the consulate or post-consulate of Phocas.

Heraclius (5 Oct. 610-11 Feb. 641) had at heart, in his turn, to ensure this uniformity. He ordered the year 611 to be counted as the year of his consulate, and after having his son Heraclius-le-Nouveau-Constantin crowned as co-emperor, he ordered on 22 January 613 to mention in the dating, next to himself, his young colleague, renewing the years of the latter on that day, each year, starting with the year 616 which he designated in the edict as the third of his reign, the second after his consulate and the first (of the reign) of Heraclius-le-Nouveau-Constantine.

On January 1, 632, Heraclius the New Constantine assumed the consulate and proclaimed Caesar his half-brother Heraclonas. The consulate here takes on the meaning of an entry into the fullness of imperial power: what Pope Honorius seems to hear when he counts the year 634 as the 23rd *post-consulium* year of Heraclius, according to the old style, and as the third *consulateus* of Heraclius-the-New Constantine, according to the new style.

The last emperor to assume the consulate at his accession was Constantius II (Sept. 641-Sept. 668). In the *typus autocephaliae* of the church of Ravenna, promulgated on March 1 666, this year is counted as the 24th year *post consulate* of Constantius II.

From Constantine IV (Sept. 668-Sept. 685), the so-called post-consular years of the emperors are nothing more than the years of their effective government, as it appears in the Acts of the Sixth Ecumenical Council (Nov. 7, 680-16 Sept. 681) where the imperial years of Constantine IV only, and not those of his brothers crowned in 659, are said to be post-consular.

This usage, with the meaning thus given to effective seizure of power, persisted until the beginning of the ninth century. It then disappears, this last meaning being carried over to theoc?yroxpoc-r.opiy,. The change was made at the advent of Staurakios (end of July 811). The latter had already been emperor since 25 December 803, but he had to be solemnly proclaimed in order to acquire real power. :v')-.-oz,-2/.7wp. It was probably his father Nikephoros who introduced this distinction between (3cho-cXsi-y.ir.-ozpd'-.76.) p and ,r-i'xrs!,Xsli); nominal.

The title of consul, which the emperors no longer held, was granted to high-ranking officials or high-ranking officials, until it was finally abrogated by a novella of Leo VI. See Chr. COURTOIS, Ex-consul. Observations sur l'histoire du consulat à l'époque byzantine, *Byzantion*, 19, 1949, 37-58. This category of consuls is no longer interested in chronology.

LIST OF CONSULS

FROM THE ADVENT OF DIOCLETIAN TO THE DEATH OF JUSTINIAN (after W. LIEBENAM (1) and A. DEGRASSI (2))

- 285 Imp. Diocletianus II. — M. Aurelius Aristobulus.
- 286 M. Iunius Maximus II. — Vettius Aquilinus.
- 287 Imp. Diocletianus III. - Imp. Maximianus
- 288 Imp. Maximianus II. — Pomponius Ianuarianus.
- 289 Mr Magrius Bassus. — L. Ragonius Quintianus

(r) *Fasti consulares imperii romani von 30 v. Chr. bis 565 n. Chr. mit Kaiserliste und Anhang*, Bonn, 1909.

(2) *I fasti consolari dell'impero romano dal 30 avanti Cristo al 613 dopo Cristo*, Roma, 1952.

- 290 Imp. Diocletianus IV. - Imp. Maximianus III.
 291 C. Iunius Tiberianus II. — Cassius Dio.
 292 Afranius Hannibalianus. - Iulius Asclepiodotus.
 293 Imp. Diocletianus V. - Imp. Maximianus IV.
 294 C. Flavius Valerius Constantius Caesar. — Galerius Valerianus Maximianus Caesar.
 295 Nummius Tuscus. — C. Annius Anullinus
 296 Imp. Diocletianus VI. — C. Flavius Valerius Constantius **Caesar II**.
 297 Imp. Maximianus V. — Galerius Valerius Maximianus II.
 298 M. Iunius Caesonius Nicomachus Anicius Faustus Paulinus II. - Virius Gallus.
 299 Imp. Diocletianus VII. - Imp. Maximianus VI.
 300 C. Flavius Valerius Constantius Caesar III. — Galerius Valerius Maximianus **Caesar III**.
 301 T. Flavius Postumius Titianus II. — Popilius Virius Nepotianus.
 302 C. Flavius Valerius Constantius Caesar IV. — Galerius Valerius Maximianus **Caesar IV**.
 303 Imp. Diocletianus VIII. - Imp. Maximianus VII.
 304 Imp. Diocletianus IX. - Imp. Maximianus VIII.
 305 C. Flavius Valerius Constantius Caesar V. — C. Galerius Valerius Maximianus **Caesar V**. Both Augustes since May.
 306 Imp. Constantius VI. - Imp. Maximianus Galerius VI.
 307 Occ.: Imp. Maximianus IX. — Flavius Valerius Constantinus Caesar.
 Rome according to the chron. of 354 : Maximianus IX. — Maximinus. From April, post sextum consulatum (Constantii and Maximiani).
 East: Imp. Severus. — Maximinus Caesar.
 308 Imp. Diocletianus X. - Imp. Maximianus Galerius VII.
 Rome (since 20 April): Imp. Maxentius. — Mr Valerius Romulus.
 309 Occ.: p.c. Diocletiani Aug. X and Maximiani VII.
 Rome: Imp. Maxentius II. — M. Valerius Romulus II.
 East: Imp. Licinius. — Flavius Valerius Constantinus Caesar.
 310 Occ.: anno II p.c. Diocletiani Aug. X and Maximiani VII.
 Rome: Imp. Maxentius III.
 East: Tatius Andronicus. — Pompeius Probus (1).
 311 Imp. Galerius Maximianus VIII. - Imp. Maximinus II.
 Rome: Eusebius. — C. Caecionius Rufius Volusianus (sept.).
 312 Imp. Constantinus II. - Imp. Licinius II.
 Rome: Imp. Maxentius IV (until 28 Oct.).
 313 Imp. Constantinus III. - Imp. Licinius III.
 Rome: Imp. Constantinus III. - Imp. Maximinus III (until May?).
 314 C. Caecionius Rufius Volusianus II. — Petronius Annianus.
 315 Imp. Constantinus IV. - Imp. Licinius IV.
 316 Antonius Caecina ? Sabinus. — Vettius Rufinus.
 317 Ovinus Gallicanus. - Iunius Bassus.
 318 Imp. Licinius V. — Flavius Crispus Caesar.
 319 Imp. Constantinus V. — Valerius Licinianus Licinius Caesar.
 320 Imp. Constantinus VI. — Flavius Claudius Constantinus Caesar.
 321 Occ.: Flavius Crispus **Caesar II**. — Flavius Claudius Constantinus **Caesar II**. East:
 Licinius VI. — Licinius Caesar II (2).
 322 Occ.: Petronius Probianus. — Amnius Anicius Iulianus.
 323 Acilius Severus. — C. Vettius Rufinus
 324 Flavius Crispus Caesar III. — Flavius Claudius Constantinus **Caesar III**.
 325 Sex. Anicius (Faustus) Paulinus II. — P. Caecionius Iulianus
 326 Imp. Constantinus VII. — Flavius Constantius Caesar.
 327 Flavius Constantius. — Valerius Maximus.
 328 Flavius Ianuarinus. — Vettius Iustus.
 329 Imp. Constantinus VIII. — Flavius Claudius Constantinus **Caesar IV**.
 330 Flavius Gallicanus. — Valerius Tullianus Symmachus.
 331 Annius Bassus. — Flavius Ablabius.
 332 Fabius Pacatianus. — Maecilius Hilarianus.
 333 Flavius Iulius Dalmatius. — Zenofilus.
 334 Flavius Optatus (3). — Anicius Paulinus iunior.

(X) Sicorius Probus (Liebenam).

(2) This double consulate (Imp. Licinius VI and Licinius Caesar II) was placed in 322 by Liebenam and Seeck.

(3) Proculus Optatus (Liebenam).

- 335 Flavius Iulius Constantius. — Caeionius Rufius Albinus.
 336 Flavius Virrius Nepotianus Constantinus. — Tettius Facundus.
 337 Flavius Felicianus. — Fabius Titianus j j p.c. Nepotiani and Facundi.
 338 Flavius Ursus. — Flavius Polemius.
 339 Imp. Constantius II. — Imp. Constans.
 340 Septimius Acindynus. — L. Aradius Valerius(?) Proculus Populonium
 341 Antonius Marcellinus. — Petronius Probinus.
 342 Imp. Constantius III. — Constans II.
 343 M. Maecius Memmius Furius Baburius Caecilianus Placidus. — Flavius Pisidius Romulus.
 344 Flavius Domitius Leontius. — Flavius Sallustius Bonosus.
 345 Flavius (t) Amantius. — Rufius Albinus.
 346 Imp. Constantius IV. — Imp. Constans III.
 Rome: p.c. Amanti and Albini.
 347 Vulcacius Rufinus. — Flavius Eusebius.
 348 Flavius Philippus. — Flavius Salia (or Sallia).
 349 (Ulpian) Limenius. — Fabius Aco Catullinus Philomathius.
 350 Flavius Anicius Sergius. — Flavius Nigrinianus. j j p.c. Limenii and Catullini.
 351 Occ.: Imp. Magnentius. — Gaiso.
 East: p.c. Sergii and Nigriniani.
 352 East: Imp. Constantius V. — Flavius Claudius Constantius Gallus Caesar.
 Occ.: Imp. Flavius Magnus Decentius Caesar. — Paulus.
 353 East: Imp. Constantius VI. — Flavius Claudius Constantius Gallus Caesar II.
 Occ.: Imp. Magnentius II. — Flavius Magnus Decentius Caesar II.
 354 Imp. Constantius VII. — Claudius Constantius Gallus Caesar III.
 355 Flavius Arbitio. — Q. Flavius Maesius Egnatius Lollianus Mavortius.
 356 Imp. Constantius VIII. — Flavius Claudius Iulianus Caesar.
 357 Imp. Constantius IX. — Flavius Claudius Iulianus Caesar II.
 358 Datianus. — Naeratus Cerealis.
 359 Flavius Eusebius. — Flavius Hypatius.
 360 Imp. Constantius X. — Flavius Claudius Iulianus Caesar III j j p.c. Eusebii and Hypatii.
 361 Flavius Palladius Rutilius Taurus Aemilianus. — Flavius Florentius.
 362 Claudius Mamertinus. — Flavius Nevitta (Nebitta, Nebidda, Nebietta).
 363 Imp. Iulianus IV. — Flavius Sallustius.
 364 Imp. Iovianus — Flavius Varronianus.
 365 Imp. Valentinianus. — Imp. Valens.
 366 Flavius Gratianus. — Dagalaifus j j p.c. Valentiniani and Valentis.
 367 Flavius Lupicinus. — Flavius Iovinus j j p.c. Gratiani and Dagalaifi.
 368 Imp. Valentinianus II. — Imp. Valens II j j p.c. Lupicini and Iovini.
 369 Flavius Valentinianus. — Flavius Victor.
 370 Imp. Valentinianus III. — Imp. Valens III.
 371 Imp. Gratianus II. — Sex. (Anicius) Flavius Petronius Probus.
 372 Flavius Domitius Modestus. — Flavius Arintheus (or Arintheus) j j p.c. Gratiani II and Probi.
 373 Imp. Valentinianus IV. — Imp. Valens IV.
 374 Imp. Gratianus III. — Flavius Equitius.
 375 p.c. Gratiani III and Equitii.
 376 Imp. Valens V. — Imp. Valentinianus iunior.
 377 Imp. Gratianus IV. — Flavius Merobaudes j j p.c. Valentis V and Valentiniani.
 378 Imp. Valens VI. — Imp. Valentinianus iunior II j j p.c. Gratiani and Merobaudis.
 379 Decimus Magnus Ausonius. — Q. Clodius Hermogenianus Olybrius.
 380 Imp. Gratianus V. — Imp. Theodosius j j p.c. Ausonii and Olybrii.
 381 Flavius Syagrius. — Flavius Eucherius.
 382 Flavius Claudius Antonius. — Flavius Afranius Syagrius j j p.c. Syagrii and Eucherii.
 383 Flavius Merobaudes II. — Flavius Saturninus j j p.v. Antonii and Saturnini Syagrii.
 384 Flavius Ricomer. — Flavius Clearchus ! j p.c. Merobaudis and Saturnini.
 In Gaul: Flavius Magnus Maximus Aug.
 385 Imp. Arcadius. — Flavius Bauto j j p.c. Ricomeris and Clearchi.
 Vettius Agorius Praetextatus, consul-designate, died before taking office in autumn 384.
 386 Flavius Honorius. — Flavius Evodius j j p.c. Arcadii and Bautonis.
 387 Imp. Valentinianus iunior III. — Eutropius I j p.c. Honorii and Evodii.
 388 East: Imp. Theodosius II. — Maternus Cynegius j j p.c. Valentiniani III.
 Rome: Imp. Magnus Maximus II. — Flavius Merobaudes III.

(i) IIIIIIIIS iI,iebenam).

- 389 Flavius Timasius. — Flavius Promotus.
 390 Imp. Valentinianus IV. — Flavius Neoterius I I p.c. Timasii and Promoti.
 391 Flavius Tatianus. — Q. Flavius Aurelius Symmachus.
 392 Imp. Arcadius II. — Flavius Rufinus I I p.c. Tatiani and Symmachi.
 393 East: Imp. Theodosius III. — Flavius Abundantius.
 Occ.: Imp. Theodosius III. - Imp. Eugenius (this one alone already from October 25, inscr. of
 Capua CIL X L492.
 (p.c. Arcadi and Rufini.
 394 East: Imp. Arcadius III.
 Occ.: Imp. Honorius II. - Virius Nicomachus Flavianus **appointed by the** usurper Eugene.
 395 Anicius Hermogenianus Olybrius. — Flavius Anicius Probinus I I p.c. Arcadi III and Honorii II.
 396 East: Imp. Arcadius IV.
 Occ.: Imp. Honorius III.
 397 Flavius Caesarius. — Flavius Nonius Atticus Maximus.
 398 Imp. Honorius IV. — Flavius Eutychianus.
 399 East: Eutropius.
 Occ.: Flavius Mallius Theodorus p.c. Honorii and Eutychiani.
 400 Occ.: Flavius Stilicho.
 gold.: Aurelianus I I p.c. Theodori.
 401 Occ.: Flavius Vincentius.
 East: Flavius Fravitus I I p.c. Stilichonis and Aureliani.
 402 East: Imp. Arcadius V.
 Occ.: Imp. Honorius V I I p.c. Vincentii and Fraviti.
 403 East: Imp. Theodosius iunior.
 Occ.: Flavius Rumoridus.
 404 Occ. Imp. Honorius VI.
 East: Aristaenetus.
 405 Occ.: Flavius Stilicho II.
 East: Flavius Anthemius I p.c. Honorii VI.
 406 Orient Imp. Arcadius VI.
 Occ.: Anicius Flavius Petronius Probus I I p.c. Stilichonis II.
 407 Occ. Imp. Honorius VII. - Imp. Theodosius iunior II.
 408 Occ. Flavius Anicius Auchenius Bassus.
 East: Flavius Philippus I p.c. Honorii VII and Theodosii II.
 409 Occ.: Imp. Honorius VIII. — Gaul, Spain, Brittany: Imp. Flavius Claudius Constantinus. East: Imp. Theodosius iunior III I I p.c. Bassi.
 410 Orient: Varanes (Barnes).
 Rome: Tertullus I I p.c. Honorii VIII and Theodosii III.
 411 East: Imp. Theodosius iunior IV.
 Occ.: p.c. Varanis iterum p.c. Honorii VIII and Theodosii III.
 412 Occ.: Imp. Honorius IX.
 East: Imp. Theodosius iunior V.
 413 Occ.: Heraclianus, **then** p.c. Honorii IX and Theodosii V.
 East: Lucius.
 414 Occ.: Flavius Constantius.
 East: Constans I p.c. Lucii.
 415 Occ.: Imp. Honorius X.
 East: Imp. Theodosius iunior VI.
 416 East: Imp. Theodosius iunior VII.
 Occ.: Flavius Iunius Quartus Palladius.
 417 Occ.: Imp. Honorius XI. — Flavius Constantius II I I p.c. Theodosii VII and Iuni Quarti Palladi.
 418 Occ.: Imp. Honorius XII.
 East: Imp. Theodosius iunior VIII I j p.c. Honorii XI and Constanti II.
 419 Occ.: Flavius Monaxius.
 East: Plinta.
 420 Orient: Imp. Theodosius iunior IX.
 Occ.: Imp. Flavius Constantius III I I p.c. Monaxi and Plintae.
 421 Occ.: Agricola.
 East: Flavius Eustathius.
 422 Occ. Imp. Honorius XIII.
 East: Imp. Theodosius iunior X.
 423 Occ.: Flavius Avitus Marinianus.
 East: Asclepiodotus I I p.c. Honorii XIII and Theodosii X.

- 424 Occ.: Flavius Castinus.
East: Victor I I p.c. Asclepiodoti.
- 425 East: Imp. Theodosius iunior XI. — Flavius Placidus Valentinianus Caesar. Occ.:
Imp. Ioannes j p.c. Castini.
- 426 East: Imp. Theodosius iunior XII.
Occ.: Imp. Valentinianus II.
- 427 East: Flavius Hierius. — Flavius Ardabur (published together throughout the Empire).
- 428 Occ.: Flavius Constantius Felix.
East: Flavius Taurus.
- 429 East: Florentius. — Dionysius (published together and unknown in the West until May) p.c. Felicis
and Tauri.
- 430 East: Imp. Theodosius iunior XIII.
Occ.: Imp. Valentinianus III.
- 431 Occ.: Flavius Anicius Bassus.
East: Flavius Antiochus.
(p.c. Theodosii XIII; (p.c. Theodosii XIII and Valentiniani III.
- 432 Occ.: Flavius Aetius Gaudentii f.
East: Valerius Leontii f. H p.c. Bassi and Antiochi.
- 433 East: Imp. Theodosius iunior XIV.
Occ.: Flavius Petronius Maximus.
- 434 Occ.: Flavius Ardabur Aspar Ardaburis f.
East: Flavius Areobindus j j [0Mo]csiou...-: y.D!;. (IG XIV 455).
- 435 East: Imp. Theodosius iunior XV.
Occ.: Imp. Valentinianus IV j j j p.c. Asparis and Areobindi.
- 436 Orient: Flavius Anthemius Isidorus Theophilus. — Flavius Senator (published together and
late in Occ.) j I p.c. Theodosii XV and Placidi Valentiniani IV.
- 437 Occ.: Flavius Aetius Gaudentii f. II. — Flavius Sigisvultus (published together for the whole
Empire I I p.c. Isidori and Senatoris.
- 438 East: Imp. Theodosius iunior XVI.
Occ.: Anicius Acilius Glabrio Faustus.
- 439 East: Imp. Theodosius iunior XVII.
Occ.: Rufius Postumius Festus j I p.c. Theodosii XVI and Fausti.
- 440 Occ.: Imp. Placidus Valentinianus V.
East: Anatolius.
- 441 East: Constantius Cyrus.
Occ.: p.c. Valentiniani V and Anatolii.
- 442 Occ.: Flavius Dioscorus.
East: Flavius Eudoxius.
- 443 Occ.: Flavius Petronius Maximus II. — Flavius Paterius (reconnus also in the East).
- 444 East: Imp. Theodosius iunior XVIII.
Occ.: Flavius Albinus j j p.c. Petroni Maximi.
- 445 Occ.: Imp. Valentinianus VI.
East: Nomus.
- 446 Occ.: Flavius Aetius Gaudentii f. III — Aurelius Symmachus (recognized in the East).
- 447 Occ.: Calepius (Callepius, Calypius, Kalipius ; Alypius *pap.*)
East: Ardabur Asparis f. I I p.c. Aeti III and Symmachi.
- 448 Occ.: Flavius Rufius Praetextatus Postumianus.
East: Flavius Zeno.
- 449 Occ.: Flavius Astyrius (Astyrius).
East: Protogenes j j p.c. Zenonis post cons. Zenonis and Postumiani (Councils of Tyre
and
Beirut 449, Mansi, VII, 197 and 212).
- 450 Occ.: Imp. Placidus Valentinianus VII. — Gennadius Avienus (recognized in the East) j j
p.c. Astyri
and Protogenis.
- 451 East: Imp. Flavius Marcianus.
Occ.: Flavius Adelfius.
- 452 Occ.: Flavius Bassus Herculanus.
East: Sporacius.
- 453 Occ.: Flavius Venantius Rufius Opilio.
East: Flavius Ioannes Vincomalus I j p.c. Herculani.
- 454 Orient: Flavius Aetius Gaudentii f. IV. - Studius (published in Rome in the middle of May) j I p.c.
Opilionis (p.c. Vincomalli.
- 455 Occ.: Imp. Flavius Placidus Valentinianus VIII.
East: Procopius Anthemius Procopii f. j j p.c. Aeti and Studi; p.c. Aeti Iohannes.

- 456 East: Iohannes. — Varanes.
Occ.: Imp. M. Maecilius Flavius Eparchus Avitus (until early Nov.).
- 457 Orient: Flavius Constantinus. — Rufus (published in Rome between 2 and 8 April) I I p.c.
Iohannis and Varanis.
- 458 Occ.: Imp. Maiorianus
East: Imp. Flavius Novus Leo.
- 459 Occ. Flavius Ricimer
Orient: Flavius Patricius Asparis f. ! p.c. Leonis.
- 460 Occ.: Magnus.
East: Apollonius (published in the West in Sept. or Oct.). I j p.c. Ricimeris and Patrici.
- 461 Occ.: Flavius Severinus.
East: Flavius Dagalaifus I I p.c. Magni.
- 462 Occ.: Imp. Libius Severus j I p.c. Severini; p.c. Dagalaifi.
East: Imp. Leo II.
- 463 Occ.: Flavius Caecina Decius Maximus Basilius.
East: Flavius Vibianus.
- 464 East: Flavius Rusticius (Rusticus). — Anicius Olybrius (published in the West in March). Occ.:
p.c. Basilii.
- 465 Occ.: Hermenericus (Herminericus, Ermenericus).
East: Flavius Basiliscus.
- 466 East: Imp. Leo III.
Occ.: Tatianus (not known in the East) I p.c. Hermenerici and Basilisci.!
- 467 Orient: Flavius Illustrius Puseus (Poseus).- Iohannes (published throughout Italy from the
beginning of the year) I I p.c. III Leonis.
- 468 Occ.: Imp. Procopius Anthemius II.
- 469 Occ.: Flavius Marcianus.
East: Flavius Zeno.
- 470 Occ.: Flavius Messius Phoebus Severus.
East: Iordanes.
- 471 Orient: Imp. Leo IV (published in Occident after September).
Occ. - Caecilius Aeonius Probianus (Probinianus).
- 472 Occ.: Flavius Festus.
East: Marcianus j I p.c. Leonis IV.
- 473 East: Imp. Leo V (alone for the entire Empire).
Occ.: beginning of the year; p.c. Festi.
- 474 East: Imp. Flavius Leo iunior.
- 475 East: Imp. Zeno II (not published in the West).
Occ.: p.c. Leonis iunioris
- 476 Orient: Imp. Basiliscus II. — Armatas (published together).
- 477 East: p.c. Armati.
Occ.: p.c. Basilisci II and Armati.
- 478 Orient: Illus (Ellus) (published in Rome in March).
Occ.: p.c. iterum Armati
- 479 East: Imp. Zeno III I I p.c. Illi.
- 480 Occ.: Flavius Caecina Decius Maximus Basilius iunior.
East: p.c. Zenonis.
- 481 Occ.: Flavius Rufius Placidus.
- 482 Occ.: Severinus iunior (unknown in the East).
Orient: Flavius Trocondus (published in Rome at the end of the year).
- 483 Occ.: (Anicius Acilius) Aginatus (Aginantius) Faustus iunior.
East: p.c. Trocondi.
- 484 Occ.: Venantius j , p.c. Fausti.
East: Theodoricus (Theodericus).
- 485 Occ.: Q. Aurelius Memmius Symmachus iunior.
East: p.c. Venanti; (p.c. Theodorici).
- 486 Occ.: Caecina Mavortius Basilius Decius iunior j j p.c. Symmachi.
East: Flavius Longinus.
- 487 Occ.: Flavius Boethius I I p.c. Deci; iterum p.c. Symmachi.
East: p.c. Longini.
- 488 Occ.: Claudius Iulius Ecclesius Dynamius. -Rufus Acilius (Achilius) Sividius I I p.c. Boethi.
East: p.c. II Longini.
- 489 Occ.: Petronius Probinus.
East: Eusebius.

- 490 Occ.: Flavius Probus Faustus iunior (not published in the East).
East: Flavius Longinus II.
- 491 East: Flavius Anicius Olybrius junior.
Occ.: p.c. Longini II and Fausti; p.c. Fausti.
- 492 East: Imp. Flavius Anastasius. — Flavius Rufus.
- 493 Occ.: Faustus Albinus junior (unpublished in Orient) I I p.c. Anastasi and Rufi.
East: Eusebius II.
- 494 Occ.: Flavius Turcius Rufius Apronianus Asterius. — Flavius Praesidius.
- 495 Occ.: Flavius Viator I p.c. Asteri and Praesidi.
- 496 East: Flavius Paulus (not published in the West).
Occ.: p.c. Viatoris.
- 497 East: Imp. Anastasius II (not published in the West).
Occ.: iterum p.c. Viatoris.
- 498 Occ.: Flavius Paulinus.
East: Iohannes Scythia (not published in the West) I I p.c. Anastasi Aug.
- 499 East: Iohannes Gibbus (not published in the West). — Asclepius (?).
Occ.: p.c. Paulini.
- so Orient: Patricius. — Hypatius.
Occ.: iterum p.c. Paulini.
- 501 Occ.: Rufius Magnus Faustus Avienus.
East: Pompeius.
- 502 Occ.: Flavius Avienus junior.
East: Probus.
- 503 Occ.: Volusianus I p.c. Avienii iunioris.
East: Dexicrates (not published in the West).
- 504 Occ.: Flavius Rufius Petronius Nicomachus Cethegus (Cytheus).
- 505 Occ.: Flavius Theodorus II p.c. Cethegi.
East: Flavius Sabinianus.
- 506 Occ.: Flavius Ennodius Messala I j p.c. Sabiniani and Theodori.
East: Flavius Areobindus Dagalaifus Areobindus Dagalaifi f.
- 507 East: Imp. Anastasius III.
Occ.: Venantius Liberii f.
- 508 Occ.: Decius Marius Basilus Venantius iunior j I p.c. Anastasi and Venanti; p.c. Venanti; (p.c. iterum Messalae; p.c. Anastasi. •
East: Celer.
- 509 Occ.: Flavius Inportunus (Oportunus) jj p.c. Venanti.
- 510 Occ.: Anicius Mansius Severinus Boethius iunior I I p.c. Inportuni.
- 511 Occ.: Flavius Felix.
East: Flavius Secundinus (Secundianus) (not published in the West).
- 512 East: Flavius Paulus. — Muschianus (Moschianus) (not published in the West).
Occ.: p.c. Felicis
- 513 Occ.: Flavius Probus.
East: Flavius Taurus Clementinus Armonius (Clementinus) I I p.c. Pauli and Muschiani.
- 514 Occ.: Flavius Magnus Aurelius Cassiodorus Senator I I p.c. Probi.
- 515 Occ.: Florentius.
East: Anthemius.
- 516 Occ.: Flavius Petrus I I p.c. Florenti and Anthemi.
- 517 Occ.: Flavius Agapitus (unpublished in The East) I I p.c. Petri.
East: Flavius Anastasius Paulus Probus Sahinianus Pompeius Anastasius (unpublished in West).
- 518 Occ.: p.c. Agapiti (p.c. Agapiti and Anastasii).
East: Flavius Anastasius Paulus Probus Moschianus Probus Magnus.
- 519 Occ.: Flavius Eutharicus (Eutericus) Cillica (Cilliga) I I p.c. iterum Agapiti.
East: Imp. Flavius Iustinus.
- 520 Occ.: Flavius Rusticius (Rusticianus).
East: Flavius Vitalianus.
- 521 East: Flavianus Iustinianus.
Occ.: Flavius Valerius (not published in the East).
- 522 Occ.: Flavius Symmachus. — Flavius Boethius.
- 523 Occ.: Flavius Anicius Maximus I I p.c. Symmachi and Boethi.
- 524 Occ.: Flavius Rufius Opilio (Opilianus) iterum p.c. Symmachi.
East: Imp. Iustinus II.

- 525 Occ.: Flavius Probus iunior (unpublished in Orient) I p.c. Iustini and Opilionis; (p.c. Opilionis.
East: Flavius Theodorus Filoxenus Sotericus Filoxenus (not published in the West).
- 526 Occ.: Flavius Anicius Olybrius iunior.
East: p.c. Filoxeni.
- 527 Occ.: Flavius Vettius Agorius Basilius Mavortius (Maburtius) Ip.c. Olybrii
528 East: Imp. Iustinianus II (not published in the West).
Occ.: p.c. Mavorti.
- 529 Occ.: Flavius Decius. (Decitius) iunior I I iterum p.c. Mavorti.
- 530 Occ.: Flavius Lampadius. —Flavius Rufius Gennadius Probus Orestes I! p.c. Deci iunioris.
- 531 Occ.: p.c. Lampadi and Orestis.
- 532 Occ.: iterum p.c. Lampadi and Orestis; p.c. Lampadi and Orestis a. II (I).
- 533 East: Imp. Iustinianus III.
Occ.: and iterum p.c. Lampadi and Orestis.
- 534 East: Imp. Iustinianus IV.
Occ.: Flavius Decius Paulinus iunior (the last consul of the West).
- 535 East: Flavius Belisarius (Vilisarius).
Occ.: p.c. Paulini iunioris.
- 536 Orient: p.c. Belisari.
Occ.: p.c. Paulini iunioris a. II; iterum p.c. Paulini iunioris.
- 537 Orient: iterum p.c. Belisari.
Occ.: p.c. Paulini iunioris a. III; p.c. Belisari a. II.
- 538 East: Flavius Iohannes Orientalis.
Occ.: p.c. Paulini iunioris a. IV I I iterum p.c. Belisari.
- 539 East: Fl. Strategius Appion.
Gaul: p.c. Iohannis.
Occ.: p.c. Paulini iunioris a. V.
- 540 Orient: Flavius Mar. Petrus Theodorus Valent. Rust. Boraïd. Germanus Iustinus iunior
Occ.: p.c. Paulini iunioris a. VI; iterum p.c. Iohannis.
- 541 East: Flavius Anicius Faustus Albinus Basilius iunior I I p.c. Paulini iunioris a. VII; p.c. Iustini.
542 a. Basili iunioris a. I a. Basili iunioris a. VIII a. Iustini a. II
a. III.
- 544 P. c. Basili a. III; and iterum p.c. Basili; (p.c. Basili a. IV; p.c. Paulini iunioris a. X; p.c. Iustini a. IV; sexies (septies) p.c. Iohannis.
- 545 P- c. Basili a. IV p.c. Basili a. W
p. c. Paulini iunioris a. XI; p.c. Iustini
- 546 a. V. VI
pp. c. Basili a. Vp.c. Basili p.c. Paulini iunioris a. XII; p.c. Iustini
- 547 P. a. VII; novies p.c. Iohannis.
- | | | | |
|----------|-----------------|------------------------|------------------------|
| 548 p c. | Basili a. VII | p.c. Basili a. VIII | P.c. Iustini a. |
| 549 . c. | Basili a. VIII | P.c. Basili, a. IX | P.c. Iustini VIII. |
| 550 p c. | Basili a. IX | P.c. Basili a. X | P.c. Iustini a. IX |
| 551 . c. | Basili a. X | P.c. Basili a. XI | P.c. Iustini a. X. |
| 552 p c. | Basili a. XI | P.c. Basili a. XII | P.c. Iustini a. XI. |
| 553 . c. | Basili a. XII | P.c. Basili a. XIII | P.c. Iustini a. XII. . |
| 554 p c. | Basili a. XIII | P.c. Basili a. XIV | P.c. Iustini a. XIII. |
| 555 . c. | Basili a. XIV | P.c. Basili a. XV | P.c. Iustini a. XIV. |
| 556 p c. | Basili a. XV | P.c. Basili a. XVI | P.c. Iustini a. XV. |
| 557 . c. | Basili a. XVI | P.c. Basili a. XVII | P.c. Iustini a. XVI. |
| 558 p c. | Basili a. XVII | P.c. Basili a. XVIII | P.c. Iustini a. XVII. |
| 559 . c. | Basili a. XVIII | P.c. Basili a. XIX | P.c. Iustini a. |
| 560 p c. | Basili a. XIX | P.c. Basili a. XX | P.c. Iustini XVIII. |
| 561 . c. | Basili a. XX | P.c. Basili a. XXI | P.c. Iustini a. XIX. |
| 562 p c. | Basili a. XXI | P.c. Basili a. XXII | P.c. Iustini a. XX. |
| 563 . c. | Basili a. XXII | P.c. Basili a. XXIII | P.c. Iustini a. XXI. |
| 564 p c. | Basili a. XXIII | P.c. Basili a. XXIV | P.c. Iustini a. XXII. |
| 565 . c. | Basili a. XXIV | P.c. Basili a. XXV (2) | P.c. Iustini a. XXIII. |

(s) auno tertio (Liebenam).

(2) The number of postconsulates in this column is that of *modus victorianus*. Indicated by Liebenatn, it is abandoned by Degraasi.

ii

ROMAN EMPERORS

Diocletianus, 17 or 20 Nov. (or 17 Sept.) (1) 284-I^{and} **May** 305 (abdic.), died 316.
 Maximianus (West) (Caesar perhaps **on** March 286), late 286-I May 305, returns Feb. 307-April 308, killed 310.
 Constantius (Chlorus) (I) (West) (Caesar I^e March 293), **may** 305-25 July. p. 306.
 Galerius (Caesar I **March** 293) (East), 1 **May** 305-5 May 311:
 *Carausius (in Brittany) 286-293
 *Allectus (in Brittany), 293-296.
 Flavius Severus (West) (Caesar **may** 305), 25 July 306, dethroned April 307.
 Maximinus Daia (East) (Caesar Cr May 305), 309 or 310-summer 313.

Constantinus (I) (West), 25 July 306-18 Sept. 324.
 Maxentius (West) (Caesar 28 Oct. 306), 28 Oct. 307-28 Oct. 312.
 *Alexander (in Africa), June 308-311.
 Licinius (Orient), 11 Nov. 308-18 Sept. 324, died 325.
 Constantinus (I) (only emperor), 18 Sept. 324-22 May 337.
 Constantinus (II) (West), 9 Sept. 337-March-April 340.
 Constantius (II) (East), 9 Sept. 337-3 Nov. 361. From 18 Jan. 350, only emperor.
 Constants (I) (Illyricum **and**, from March-April 340, all the West), 9 Sept. 337-18 Jan. 350:
 *Magnentius, 18 Jan. 350-10 August 353.
 Julianus (usurper in Gaul, Feb. 360), 3 Nov. 361-26 June 363.

Iovianus, 27 June 363-16 Feb. 364.



Valentinianus (I), 26 Feb.-28 March 364, only emperor.
 (West), 28 March 364-17 Nov. 375.
 Valens (Orient), 28 March 364-9 August 378.
 Gratianus (Augustus, 24 August 367) (West), 17 Nov. 375-25 August 383. He governed until his death on *pars* of Valentinian II as a child.
 Valentinianus (II) (West, part or all, depending on the events), 22 Nov. 375-15 May 392. Emperor effective around August-Sept. (before 16) 384.

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Theodosius (I) (East), 19 Jan. 379; only emperor, 6 Sept. 394-17 Jan. 395.
 *Maximus (Brittany, autumn 382) (Gauls), 25 August 383-28 August 388. Recognized by Theodosius and Valentinian II in 384.
 *Flavius Victor (son of Maximus), Augustus, 384-autumn 388.
 *Eugenius (West), 22 **August** 392-6 Sept. 394.

r) Problem discusses, see W. ENssr.J.N, *Zum dies imperii des Kaisers I)iokletians*, *Aegyphr*, t. Z., 1-148, 17 * 1-0. This author concludes on November 20, date of Lactanco.

Emperors of the West

Honorius (Augustus, 23 Jan. 393), 17 Jan. 395-15 Aug. 423:
 *Constantinus (III), 407-18 Sept. 411;
 *Attalus 409-415.
 Constantius (III), co-emperor, 8 Feb. 421-21 Sept. 421.
 Iohannes, Dec. 423-May 425, not recognized in the East.
 Valentinianus (III), Oct. 23, 425-March 16, 455
 *Petronius Maximus, March 17, 455-May 31, 455.

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Avitus, July 9 455-17 Oct. 456.
 Maiorianus (Caesar, 1 April 457), 28 Dec. 457-
 2 August 461.
 Livius Severus, 19 Nov. 461-14 Nov. 465.
 Anthemius (Caesar, 25 March 467), 12 April 467-
 11 July :
 *Olybrius, April 472-2 Nov. 472.
 Glycerius, 3 March 473-19 or 24 June 474.
 Iulius Nepos, 19 or 24 June 474-28 August 475.
 Romulus Augustus/Augustus, 31 Oct.

Emperors of the East

Arcadius (Augustus, 19 Jan. 383), 17 Jan. 395-1^{CI} May 408.
 Theodosius (II) (Augustus, 10 Jan. 40)²), 1^{er} May 408-28 July 450.

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Marcianus, 25 August 450-26 Jan. 457.

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Leon (I), 7 Feb. 457-18 Jan. 474.
 Leo (II), 18 Jan. 474-end Nov. 474.
 Zeno, co-emperor, 9 Feb. 474-late Nov. 474
 Only Emperor, late Nov. 474-9 Jan. 475
 Basiliscus, Jan. 9, 475-late August 476.
 Zeno (2nd time), late August 476-

III

GREEK EMPERORS

Anastasios (I), 11 April 491-10 July. p. 518.

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Ioustinos (I), 10 July 518-1 August 527.
 Ioustinianos (I), (Augustus, April 527), August 527-Nov. 15, 565.
 Ioustinos (II), Nov. 15, 565-Oct. 5, 578;
 Co-reigners: Sophia since Nov. 573
 Tiberios Caesar, Dec. 7, 574; Basileus, 26 Sept. 578.
 Tiberios Oct. 6 578-Aug. 14, 582;
 Co-reigning: Maurikios (Caesar, 6 August 582), Basileus, 13 August 582.
 Maurikios 14 Aug. 582-Nov. 23, 602;
 Co-reigning: his son Theodosius, crowned on March 26, 590.
 Phokas, Nov. 23, 602-Oct. 5, 610.
 Herakleios Oct. 5, 610-Feb. 11, 641;
 Co-reigners: Herakleios Novus Constantinus, since 22 Jan. 613
 Herakleios Heraklonas since 638.
 Herakleios Novus Constantinus (III), 11 Feb. 641-24 May 641.
 Herakleios Heraklonas, 25 May 641-end Sept. 641.
 Co-reigners: Martine since May 25;
 Konstas since Sept. 641;
 David, about the same date.

Konstas (II) (Pogonatos) **late** Sept. 641-Sept. 668;
 Co-reigning: Konstantinos (IV), crowned between 5 and 26 April 654, probably at Easter, April 13;
 Herakleios and Tiberios since 659, between 26 [Apr. and](#) 9 August.
 Konstantinos (IV), Sept. 668-early Sept. 685;
 Co-reigners: Herakleios and Tiberios until 681 (between 16 [Sept. and](#) 23 Dec.)
 since 681 (between Sept. 16 [and](#) Dec. 23); crowned ; Ioustinianos (II),
 in 685.
 Ioustinianos (II), Sept. 685-late 695.
 Leontios, late 695-late 698.
 Tiberius (III) Apsimaros, **late** 698-middle 705.
 Ioustinianos (II), c. 705-c. 11 Dec. 711;
 Co-reigning: Tiberios since the end of 705.

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Philippikos Bardanes, c. 11 Dec. 711-3 June 713.
 Anastasios (II) (Artemios), **June** 4, 713-late August 715.
 Theodosios (III), late 715-18 April 716.
 Leo (III) (Isauros), 18 April 716 (proclamation) (coronation, 25 March 717)-18 June 740;
 Co-reigning: Konstantinos (V), since 31 March 720.
 Konstantinos (V), 19 June 740-23 Sept. 775;
 Co-reigning: Leon (IV), since 17 May 750;
 *Artabasdos, July 741-Nov. 2, 742.
 Leo (IV), 24 Sept. 775-8 Sept. 780.
 Konstantinos (VI), 9 Sept. 780-print. 790 ;
 Co-reignant: Eirènè, the same time.
 Eirènè (alone), from spring to Dec. 790.
 Konstantinos (VI), Dec. 790-15 Aug. 797;
 Co-reignant: Eirènè, the same time.
 Eirènè (alone), 15 August 797-31 Oct. 802.

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Niképhoros (I), 1 Nov. 802-25 July 811.
 Staurakios, 26 July 811-2 Oct. 811.
 Michael (I), 2 Oct. 811-10 July 813.
 Leo (V), 10 July 813-24 Dec. 820.

*

Michael (II), 25 Dec. 82-Oct. 829 ;
 Co-reigning: Theophilos, since May 12, 821.
 Theophilos, Oct. 829-20 Jan. 842.
 Theodora, 21 Jan. 842-15 March 856.
 Michael (III), Jan. 21, 842-Sept. 23, 867;
 Co-reignors: Bardas, 862-May 866;
 Basileios, since May 26, 866.

. * *

Basileios (I), 23 Sept. 867-29 Aug. 886;
 Co-reignors: Konstantinos, 869-3 Sept. 879 (1);
 Leo, since 870;
 Alexandros, shortly after 871.
 Leo (VI), 30 August 886-11 May 912;
 Co-reigning: Alexandros all this time;
 Konstantinos (VII), since 9 June 911.
 Alexandros, 11 May 912-6 June 913.
 Konstantinos (VII), 7 June 913-17 Dec. 920.

(r) Cf. Fr. } IALKIN in I3yz., 24, 1954 (published in 1915), 14-17.

Romanos (I), Dec. 17, 920-Dec. 16, 944;
 Co-reignors: Konstantinos (VII), same time;
 Christophoros, 20 May 921-Aug 931;
 Stephanos, since 25 Dec. 924;
 Konstantinos, since the same date.
 Konstantinos (VII), 16 Dec. 944-9 Nov. 959;
 Co-reignors: Stephanos and Konstantinos, 16 Dec. 944-27 Jan. 945
 Romanos (II), since spring 948 at the latest.
 Romanos (II), Nov. 10, 959-Mar. 15, 963;
 Co-reigning: Basileios (II) since 22 Apr. 960 and Konstantinos (VIII), since 961.
 Basileios (II), 16 March 963-16 August 963;
 Co-reigning: Konstantinos (VIII).
 Nikephoros (II), Phokas (proclaimed 3 July), 16 August 963-10 Dec. 969;
 Co-reignors: Basileios (II) and Konstantinos (VIII), same time.
 Iohannes (I) Tzimiskes, 12 Dec. 969-10 Jan. 976;
 Co-reignors: Basileios (II) and Konstantinos (VIII), same time;
 *Bardas Phokas, 971.
 Basileios (II), 12 Jan. 976-15 Dec. 1025;
 Co-reigning: Konstantinos (VIII), same time;
 *Bardas Phokas, 15 August 987-989.
 Konstantinos (VIII), 16 Dec. 1025-11 Nov. 1028.
 Romanos (III) Argyros, 12 Nov. 1028-11 April 1034.
 Michael (IV) Paphlagon, 12 April 1034-10 Dec. 1041.
 Michael (V) Kalaphates, 10 Dec. 1041-21 Apr. 1042.
 Zoe, 21 Apr. 1042-12 June 1042;
 Co-reigning: Theodora, same time.
 Konstantinos (IX), Monomachos, 12 June 1042-12 Jan. 1055
 *Maniakès, oct. 1045.
 Theodora, 12 Jan. 1055-21 August 1056.

*

Michael (VI) Stratiotikos, 21 August 1056-31 August 1057.
 Isaakios (I) Komnènos (proclaimed 8 June), ^{ter} Sept. 1057-25 Dec. 1059.

*

Konstantinos (X) Doukas, 25 Dec. 1059-21 May 1067.
 Co-reigning: Michael (VII) Doukas, since about 1060.
 Eudokia Doukaina, 21 May 1067-31 Dec. 1067;
 Co-reignors: his sons Michael (VII), Andronikos, Konstantinos, same time.
 Romanos (IV), ¹ Jan. 1068-19 August 1071.
 Eudokia, 19 August 1071-24 Oct. 1071.
 Michael (VII), Doukas Parapinakes, 24 Oct. 1071-7 Jan. 1078.
 *Iohannes Doukas, 1072.
 *Niképhoros Bryennios, 3 Oct. 1077-April 1078;
 *Niképhoros Botoneiatès, since 10 Oct. 1077.

*

Niképhoros (III) Botoneiatès, 7 Jan. 1078-^{1er} April 1081.

*

Alexios (I) Komnènos, 1 April 1081-15 August 1118;
 Co-reignors: Konstantinos Doukas, 1081-c. 1090;
 Iohannes Komnènos, since 1092 (sept. ?).
 Iohannes (II) Komnènos, 16 August 1113-8 April 1143.
 Manouel (I) Komnènos, 8 Apr. 1143-24 Sept. 1180;
 Co-reigning: Alexios (II), since 1172.
 Alexios (II) Komnenos, 24 Sept. 1180-Sept. 1183;
 Co-reigning: Andronikos (I) Komnènos, since 16 May 1182.
 Andronikos (I) Komnènos, Sept. 1183-12 Sept. 1185;
 Co-reigning: Alexios (II) until about Oct. 1183.

Isaakios (II) Angelos, 12 Sept. 1185-8 Apr. 1195.
 Alexios (III) Angelos, 8 Apr. 1195-18 August 1203.
 Isaakios (II) Agarios, 18 Aug. 1203-28 Jan. 1204;
 Co-reigning: Alexios (IV), his son, at the same time;
 *Nikolaos Kanabos, 25 Jan. 1204-28 Jan. 1204.
 *Alexios (V) Mourtzouphlos, 28 Jan. (crowned 5 Feb. 1204-13 April 1204).
 Konstantinos (XI) Laskaris, crowned on the night of 12 to 13 April 1204.

GREEK EMPERORS DENIED

Konstantinos (XI), 1204.
 Theodore (I) Laskaris, spring 1204, crowned at Nicaea between 30 March and 5 Apr. 1208, t early 1222.
 Iohannes (III) Doukas Batatzes, early 1222-30 Oct. 1254
 Co-reigning: Theodore (II) Laskaris, since 1241 (?).
 Theodore (II) Laskaris, 30 Oct. 1254-August 1258.
 Iohannes (IV) Doukas, August 1258-1 dec. 1258.
 Michael (VIII) Palaiologos, te^r Dec. 1258 (1st coronation 25 Dec. 1258) -July 25 1261.

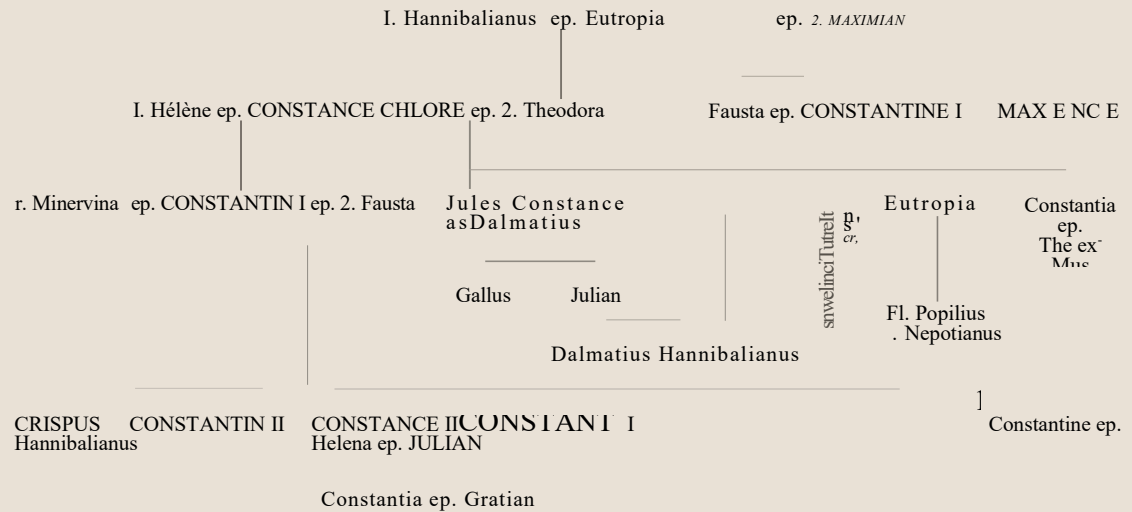
GREEK EMPERORS IN CONSTANTINOPLE

Michael (VIII) Palaiologos, 25 July 1261 (2nd coronation 15 August 1261)-~~II~~Dec. 1282.
 Co-reignors: Andronikos (II), since 8 Nov. 1272;
 Michael (IX), since shortly after June 1281.
 Andronikos (II), II Dec. 1282-abd. 24 May 1328.
 Co-reignors: Michael (IX), 1294 (crowned 21 May 1295)-12 Oct. 1320;
 Andronikos (III), June 1321 (crowned 2 Feb. 1325).
 Andronikos (III), 24 May 1328-15 June 1341.
 Iohannes (V), 15 June 1341 (crowned 19 Nov.)-1354
 Co-reigning : Iohannes (VI) Kantakouzènos (first usurper, 26 Oct. 1341), 8 February 1347
 (crowned 13 May).
 Iohannes (VI) Kantakouzènos, 1354 (after March)-abd. Jan. 1355
 Co-reigning: Matthaios Kantakouzènos, 1354 (after March)-1357.
 Iohannes (V), Jan. 1355-12 August 1376.
 Andronikos (IV), 12 August 1376 (crowned 1 Oct.)-I^{er} Jul. 1379
 Iohannes (V), 'e l' July 1379-16 Feb. 1391.
 *John (VII), usurper from 14 April to 17 September 1390.
 Manouël (II), shortly after 16 Feb. 1391-21 July 1425;
 Co-reignors: Iohannes (VII), Dec. 1399 (before the 10th)-13 Sept. 1402;
 Iohannes (VIII), since 19 Jan. 1421 (coronation), effectively governs.
 Iohannes (VIII), 21 July 1425-31 Oct. 1448.
 Konstantinos (XII) Dragasses (crowned at Mistra), 6 Jan. 1449-29 May 1453, date of the capture of Constantinople by the Turks and the end of the Byzantine Empire.

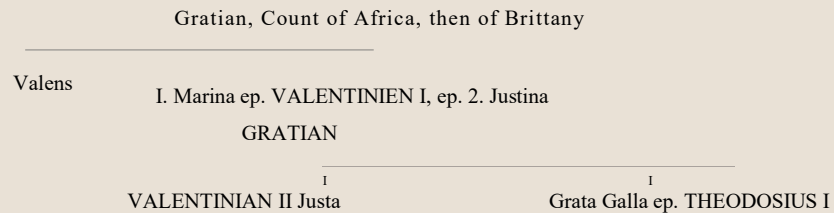
Iii *encore*

BYZANTINE DYNASTIES

I. - CONSTANTINE DYNASTY



II. - VALENTINIAN DYNASTY



The chart illustrates the genealogy of the Constantinian dynasty. At the top, Honorius (?) and Thermantia are the parents of Theodosius the Elder and Eucharius (Cons. 381). Theodosius the Elder is married to Maria (ep. honorius) and has three children: 1. Flacilla (ep. THEODOSIUS I), 2. Galla, and a Daughter (ep. Syagrius). Flacilla is married to THEODOSIUS I, and they have three children: I. ARCADIVS Pulcheria, I. honorius, and I. ep. Eudoxia. Galla is married to 1. Ataulf (ep. Oromo) and 2. CONSTANCE III. The Daughter is married to Placidia (ep. 2. CONSTANCE III). The chart also shows the lineage of the Constantinian dynasty, including Eucharius, Maria, Thermantia, Flacilla, Pulcheria, Arcadia, TRÉonosE II, Marina, VALENTINIEN III, and Honoria.

```

graph TD
    H["Honorius (?) ep. Thermantia"] --> T["Theodosius the Elder"]
    H --> E["Eucharius Cons. 381"]
    T --> M["Maria ep. honorius"]
    T --> F["1. Flacilla ep. THEODOSIUS I"]
    T --> G["2. Galla"]
    T --> D["Daughter ep. Syagrius"]
    M --> TS["Thermantia Serena ep. Stilicon"]
    F --> AP["I. ARCADIVS Pulcheria"]
    F --> H1["I. honorius"]
    F --> E1["I. ep. Eudoxia"]
    G --> AO["1. Ataulf ep. Oromo"]
    G --> C3["2. CONSTANCE III"]
    D --> P["Placidia ep. 2. CONSTANCE III"]
    AO --> T1["Theodosius"]
    P --> C3
    E --> EU["Eucharius"]
    M --> MA["Maria"]
    TS --> TM["Thermantia"]
    AP --> FL["Flacilla"]
    H1 --> PU["Pulcheria"]
    E1 --> AR["Arcadia"]
    T1 --> TR["TRÉonosE II"]
    C3 --> MA2["Marina"]
    P --> V["VALENTINIEN III"]
    C3 --> HO["Honoria"]
  
```

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graph TD
    A[LEO I ep. Verina, sister of BASILISCUS] --> B[N. wires]
    A --> C[I. ZENENT ep. Ariadna]
    A --> D[ep. 2. ANASTASIUS I]
    A --> E[Leontia ep. a son of Anthemus Emp. of the West]
    D --> F[LEO II]
  
```

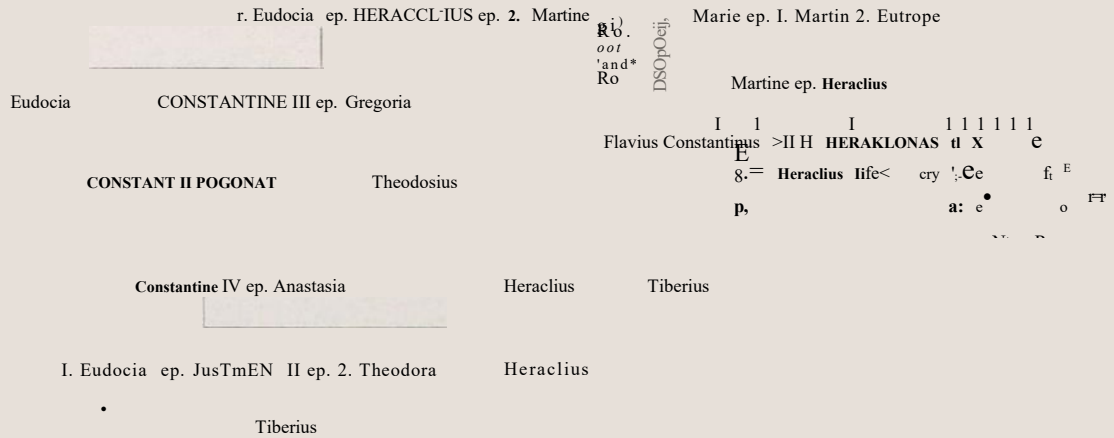
Justin I ep. Euphemia (Lupicina) married Vigilantia ep. Sabbatius. Justin I and Vigilantia have a daughter, Theodora, who is married to Justinian. Justinian and Theodora have a son, Tiberius II (Aelia Anastasia, Paul). Tiberius II has four children: Charito, Constantina (Mauritius), Stone, and Gordia (Theophilippus). The chart also shows the marriages of these children: Charito to Germain, Constantina to Paul, Stone to Justinian, and Gordia to Theophilippus.

```

graph TD
    JustinI[Justin I ep. Euphemia (Lupicina)] --- Vigilantia[Vigilantia ep. Sabbatius]
    JustinI --- Theodora[Justinian ep. Theodora]
    Theodora --- Justinian[Justinian]
    Justinian --- TiberiusII[Tiberius II Ep. Aelia Anastasia Paul]
    TiberiusII --- Charito[Germain ep. Charito]
    TiberiusII --- Constantina[Constantina ep. Mauritius]
    TiberiusII --- Stone[Stone]
    TiberiusII --- Gordia[Gordia ep. Theophilippus]
    Charito --- Germain[Germain]
    Constantina --- Paul[Paul]
    Stone --- Justinian2[Justinian]
    Gordia --- Theophilippus[Theophilippus]
  
```

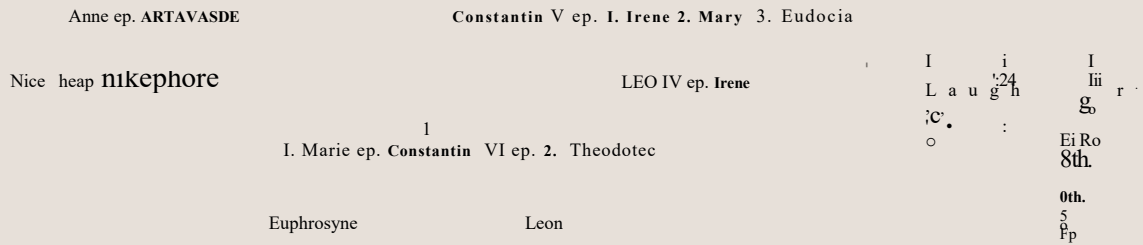

VI. - DYNASTY OF HERACLIUS

. Heraclius the patrice ep. Epiphauia

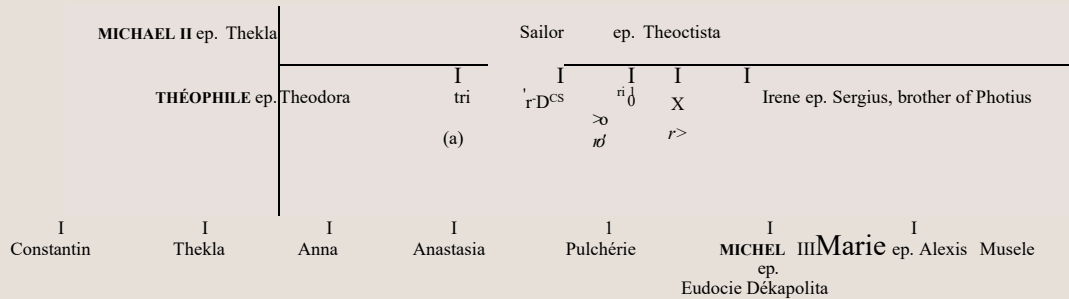


VII. - ISAURIAN DYNASTY

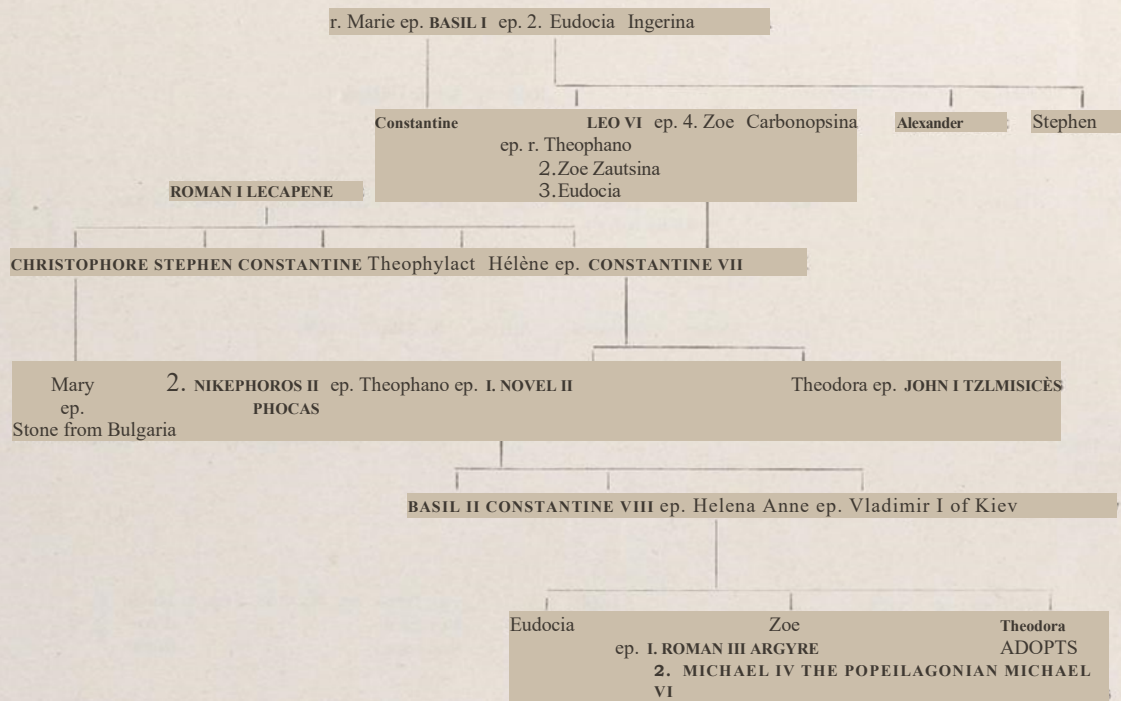
I.Ecnv III ep. Mary



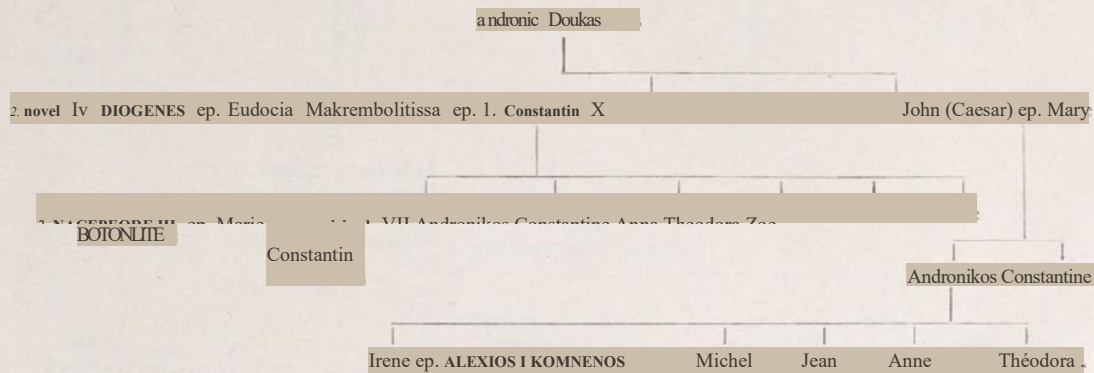
VIII. - AMORIAN DYNASTY



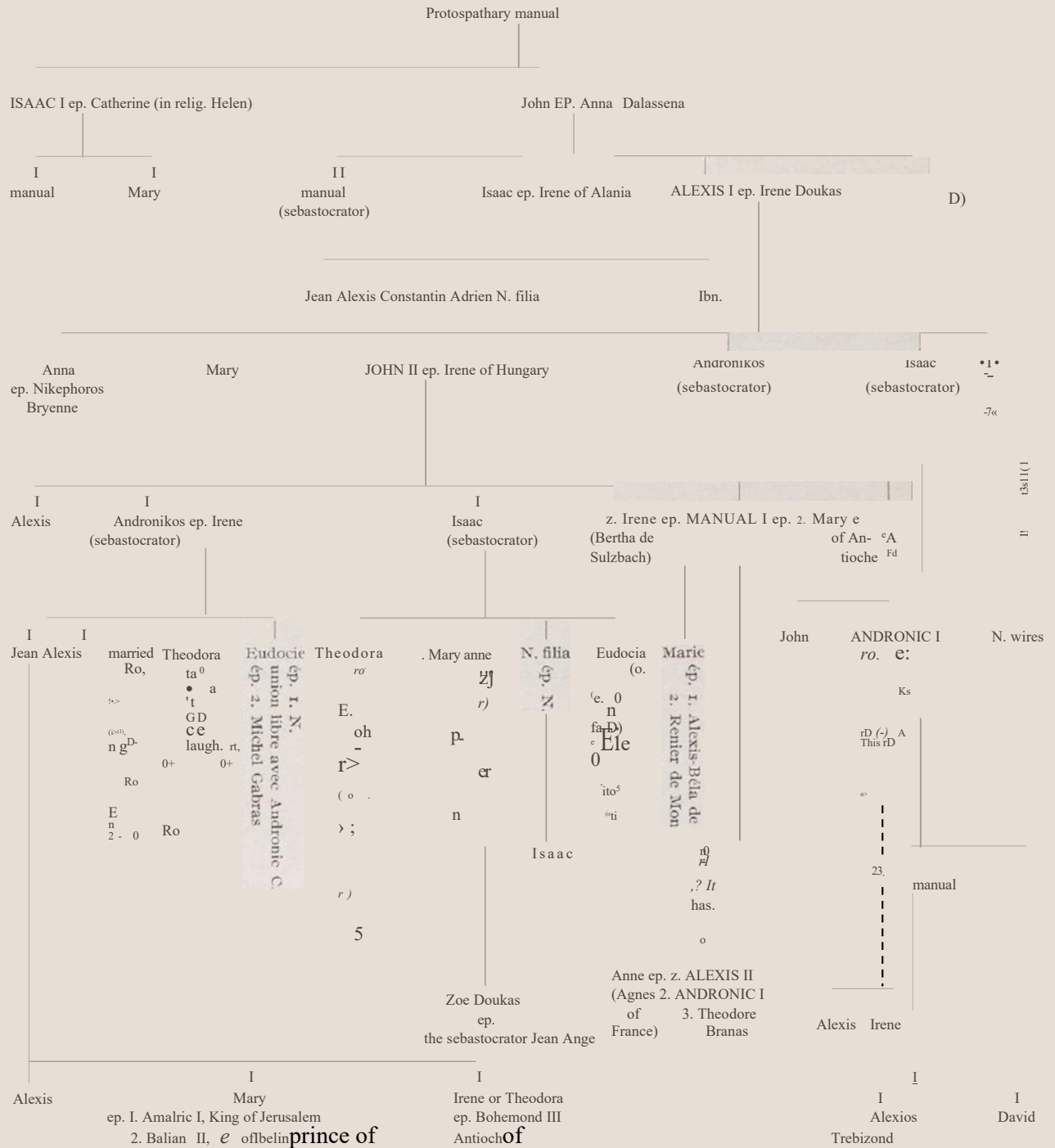
IX. - MACEDONIAN DYNASTY



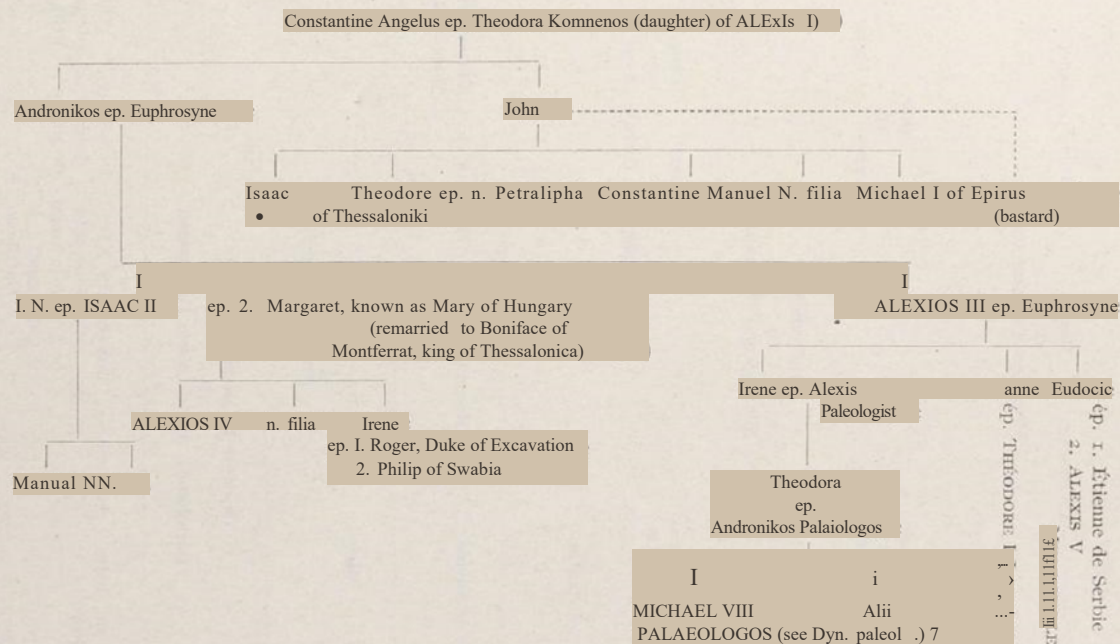
X. - DOUKA DYNASTY



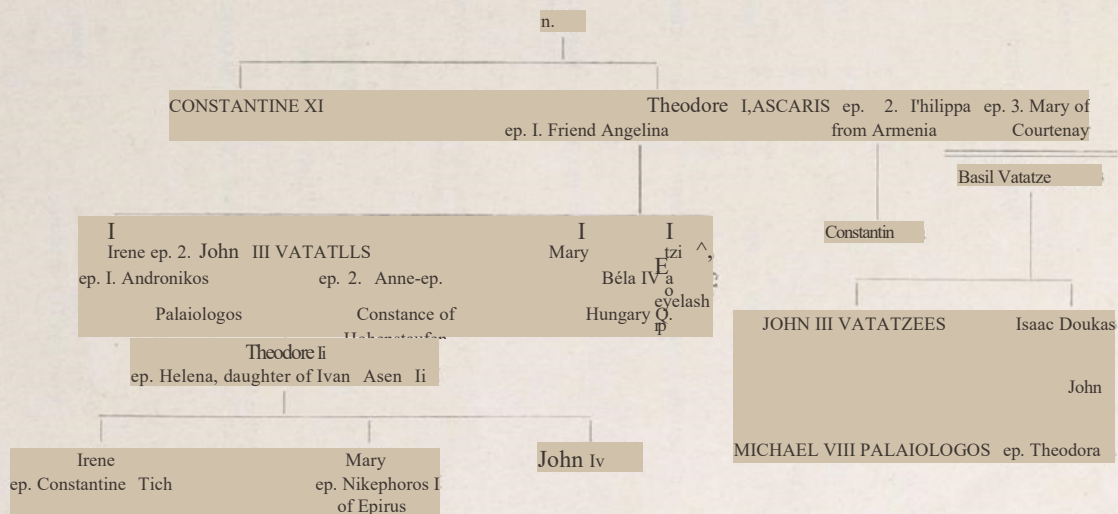
XI. - DYNASTY OF THE KOMNENOS



XII. - DYNASTY OF ANGELS

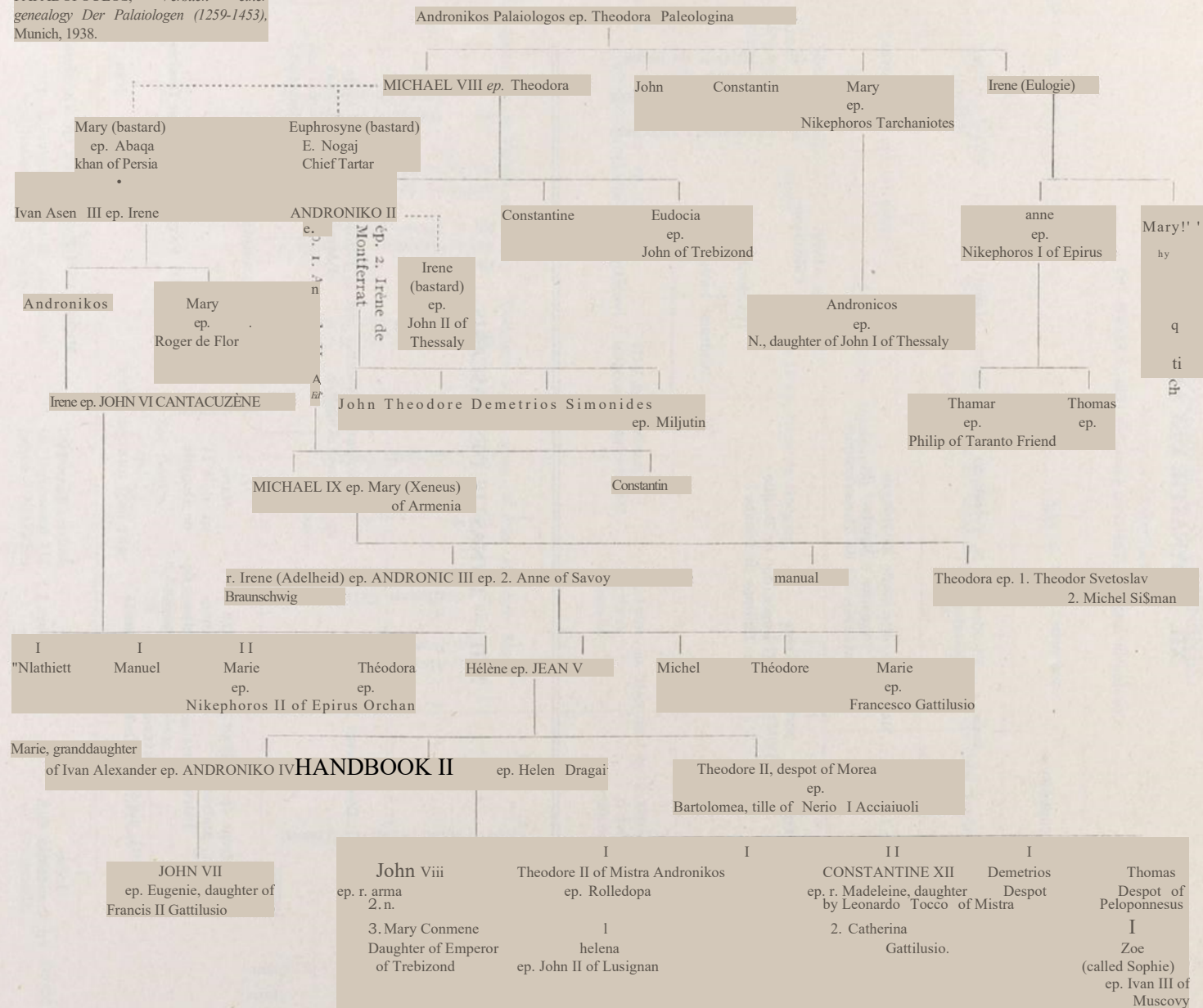


XIII. - LASCARIS DYNASTY



More detailed table in Aver-kios Th. PAPADOPOULOS, *Versuch einer genealogy Der Palaiologen (1259-1453)*, Munich, 1938.

XIV. - DYNASTY OF PALEOLOGISTS



I v

PRAETORIAN PREFECTS

(A) PREFECTS OF THE PRAETORIAN COURT OF THE EAST

(W. ENSSLIN, Praefectus praetorio Orientis, *RE, XXII*, 2, CO]. 2499-2501)

Constantius.....	16 Dec. 324 - 24 June 327
Euagrius	3 Feb 326 - 22 August 336
Flavius Ablabius	18 Sep. 329 - May 337
Domitius Leontius	18 Oct. 338 - 1 I Oct. 340
Septimius Acyndinus	27 Dec. 338 - 14 Aug 340
Domitius Leontius alone	11 May 342 - 6 July 344
Flavius Philippus	28 June 346 - 20 Sept. 349
Thalassius.....	15 March 351 - early 354
Domitianus.....	354
Strategius Niusoninus	25 July 354 - 7 June 357
Hermogenes	August 358 - 28 May 359
Helpidius	4 Feb. 360 - 29 May 361
Secundus Salutius	1 March 362 - 30 July 365
Nebridius.....	August - Sept. 365
(Araxius under Procopius 365-366)	
Secundus Salutius (2nd faiths)	2 Nov. 365 - summer 367
Auxonius	1 Sept. 367 - 29 Dec. 369
Modestus	370 (Jan. 16, 371)-Nov. 2 377
Aburgius under Valens and Theodosius I with Olybrius	379
Neoterius	15 Jan. 380 - 16 Jan. 381
Eutropius	6 Jan. 380 - 28 Sept. 381
Florus	30 July 381 - 5 March 383
Postumianus	6 Apr. - 3 Dec. 383
Cynegius	18 Jan 384 - 14 March 388
Tatianus	16 June 388-before 10 Sept. 392
Rufinus.....	10 Sept. 392 - Nov. 27, 395
Caesarius	30 Nov. 395 - 26 June 398
Eutychianus.....	24 Feb 396 - 28 Dec 399
Aurelianus.....	17 August 397 - summer 400
Caesarius (2nd time)	8 Dec. 400 - 3 Feb. 401
Aurelianus (2nd time)	6 Oct. 402
Eutychianus (2nd time)	3 Feb. 404 - 11 June 405
Anthemius.....	10 juill. 405 - 18 Apr. 414
Aurelianus (3rd time)	30 Dec. 414 - 10 May 416
Monaxius.....	26 August 416 - 27 May 420
Eustathius.....	18 Sept. 420 - 19 June 422
Asclepiodotus.....	14 Feb. 423 - 1 Feb. 425
Aetius	5 May 425
Hierius.....	22 Sept. 425 - 20 Feb. 428
Florentius.....	21 Apr 428 - 11 Feb 430
Antiochus	31 Dec. 430 - 23 March 431
Hierius	23 March 432
Taurus	22 Apr 433 - 15 Dec 434
Isidorus.....	29 Jan. 435 - 4 August 436
Darius	28 August 436 - 16 March 437
Florentinus	31 Jan 438 - 26 Nov 439

cyrus
 Thomas
 Apollonius
 Zoilus
 Hermocrats
 Taurus (2nd time)
 Eutychianus
 Constantinus
 Flavius Romanus Protegenes
 Hormisdas
 Eugarus (Antiochus?)
 Trypho
 Parmasius
 Palladius
 Constantinus (2nd time)
 Vibianus
 Pusaeus
 Eritrea
 Nicostratus
 Armasius
 Constantinus (3rd time)
 Eritrea (2nd time)
 Dioscorus
 Pusaeus (2nd time)
 Sebastianus
 Dionysius
 Aelianus
 Sebastianus (2nd time)
 Arcadius
 Basilius
 Dioscorus
 Matronianus
 Arcadius under Anastasius (491-518)
 Leontius under Anastasius
 Hierius
 Euphemius
 Armenius under Anastasius
 Theodorus (?)
 Polycarpus
 Aspar Alypius Constantinus
 Leontius
 (Apion pr. pr. extraord. 503)
 (Calliopius pr. pr. extraord. 504)
 Alypius Constantinus (2nd time)
 Eustathius
 Zoticus
 Marinus
 Sergius
 Apion
 Marius
 Demosthenes
 Archelaus
 Basilides
 Atarbuis
 Menas
 Demosthenes
 Iulianus
 Iohannes Cappadox
 (interruption from 25 Jan. to mid-53²)
 Oct
 Theodotus
 Petrus Barsyms
 Theodotus

Dec. 6 439 - 18 August 441
 25 Feb. 442
 21 Augus 44² -22 May 443
 26 Feb. 444 -20 July 444
 29 Nov. 444
 17 Feb. 445
 " 445 -447
 toward 447
 16 Feb 44⁸ - 9 Jan. 449
 Apr. 449
 end 449 - 3 Apr 450
 448
 before Oct. 451
 before Oct. 451
 End 450 - " I 455
 August " 459
 25 March 456 - 3 460
 March
 17 Sep. 459 - I Feb.
 8 Feb. 468 - I Sept. 468
 8 March 469 - end of 470
 7 August 471
 I Jan. 472 - July 472
 Summer 472 - 29 Apr 473
 17 Dec. 476 - I May 480
 480
 27 Dec. 4⁸⁰
 13 Apr 484
 31 May 486
 I July. 486
 Iseven. 4⁸⁹
 I July. 49¹ - July 3,491
 13 Feb 496
 I Apr. 496 - 21 August 496
 15 Feb 491
 I Apr. 498
 15 Feb 502 - I jllili. 502
 between 502,504 and 510
 I Jan. 505
 19 Apr 505 - 20 Nov. 506
 511/12
 512
 I Apr. 517 - 1 Dec. 517
 Dec. 518
 before 9 Nov 519
 I June 521
 Nov. 19, 524 - 1 Dec. 525 (527 ?)
 before
 March 528,
 528 - 7 Apr 529
 17 Sep 529 - Oct. 30 529
 18 March 530 - Feb. 20 531
 31 Apr 531 - May 7 541
 I June 541 - Dec. 18 542
 July 16 543 - I May 546
 I Apr. 547

Bassus	Spring - mid-Sept. 548
Eugenius.....	15 or 17 Sep. 548-late
Addaeus	550
Hephaetus.....	June 15 - fall 551
Areobindus.....	before fall 552 before the
	8 Feb 553 - 15 Apr 554
Petrus Barsyms (2nd time).....	1 June 555 - 27 Dec. 559
	and May 562
Diomedes	18 May 572
Gregorius.....	577 ^{7s}
Georgius.....	593
Theodorus	605
Olympius.....	• 615
Alexander	626

(B) PREFECTS OF THE COURT OF ITALY, ILLYRICUM AND AFRICA

(W. ENSSLIN, *Pr. pr. Italiae, Illyrici and Africae, re XXII, 2, col. 2498-2499*)

Euagrius	August 339 - 22 Sep. 340
Antonius Marcellinus.....	29 Apr. 340 - before June 24, 341
Aconius Catullinus.....	24 June 341 - before 6 July 342
Placidius.....	28 May 344
Vulcacius Rufinus.....	8 March 346 - 28 Dec 349
Ulpus Limenius.....	12 June 347 - 8 Apr. 349
Hermogenes	19 May 349 - 26 Feb. 350
(Anicetus Under Magnentius : 350-352. Vulcacius	
Rufinus, perhaps only pr. pr. of Illyria under	
Vetranio.)	
Vulcacius Rufinus.....	26 Feb 352 - 12 May 352
Flavius Philippus.....	9 June 353 - 3 Nov 353
Maecilius Hilarianus	before January 354
Volusianus Lampadius.....	Jan. 355 - July 29, 355
Taurus (from Italy and Africa).....	6 Apr 355 - 2 Sep 356
Lollianus Mavortius.....	July 25 356 - winter 356
Mamertinus	22 Feb 362 - 26 Apr 365
Vulcacius Rufinus (2nd time).....	before 21 June 365-19 May 376
s. Petronius Probus.....	18 June 367 - after 17 Nov 375
Antonius	6 June 377 - 12 Jan 378
Hesperius	21 Jan. 378 - (then pr. pr. of Gauls
	and Italy)
Syagrius	Summer 382
Severus	25 March 382 - after 30 August 382
Hypatius.....	9 Dec. 382 - 28 May 383
s. Petronius Probus (2nd time).....	19 Jan 383 - 26 Oct. 384
Atticus	13 March 384
Praetextatus.....	21 May 384 - 9 Sep 384
Neoterius.....	Feb. 385 - July 26, 385
Principius	13 Feb 385 - 3 Nov 386
Eusignius.....	23 Jan 386 - 19 May 387
s. Petronius Probus (3rd time).....	summer 387
Trifolius	14 June 388 - 19 Jan 389
Polemios.....	16 Jan 390 - 22 June 390
Nicomachus Flavianus	18 August 390 - 9 June 391
Apodemius	15 Feb 392 - 9 June 393
(Nicomachus Flavianus Under Eugenius)	393 - 5 Sep 394
Dexter	18 March 395 - 1 Nov. 395
Eusebius	19 Dec 395 - 23 Dec 396
Hilarius.....	19 March 396 - 28 Dec 396
Mallius Theodorus	31 Jan 397 - 20 Jan 399
Valerius Messala	16 Feb 399 - 27 Nov 400

Rufius Synesius Hadrianus.....	27 Feb 401 - 5 Oct. 405
Longinianus.....	Jan 406 - 13 August 408
Curtius.....	7 Apr. 407 - 3 Feb. 408
Theodorus.....	13 Sep. 408 - 15 Jan 409
Caecilianus.....	21 Jan 409 - i Feb. 409 i
Iovius.....	Apr. 409 - 26 June 409 26
Liberius.....	Nov 409
Lampadius.....	End 409, 410
Faustinus.....	6 Jan 410 - 15 August 410
Melitus.....	16 Nov 410 - 19 March 412
Johannes.....	8 May 412 - 12 June 413
Synesius Hadrianus.....	3 August 413 - 3 March 414
Seleucus.....	3 Apr. 414 - i Dec. 415
It.....	7 Jan. 416 - 28 July 421
Iunius Quartus Palladius.....	11 Kim. 422
Johannes.....	3 Nov 422
Marinianus.....	9 March 423
Venantius.....	18 May 423
Proculus.....	6 March 426 - 7 Apr 426
Bassus.....	after 426
Protogenesis.....	26 Feb 428 - i i June 429
Volusianus.....	15 Feb. 430 - 18 Dec. 430
Theodosius.....	430 18 Dec. 430
Decius Acinacius Albinus.....	29 Apr 431 - 24 March 432
Flavianus.....	between 433 and 437
Petronius Maximus.....	3 August 435
Flavius Bassus.....	July 8, 438
Faustus.....	28 Apr. 439 - 20 Feb. 441 13
Petronius Maximus (2nd time).....	August 442
Faustus.....	27 Sep 442
Paterius.....	25 May 443
Quadratianus.....	17 August 443 - Apr. 449
Albinus.....	before 452
Trygetius.....	17 June 449 - 29 June 452
Firminus.....	until 21 Sep 454
Boethius.....	
Storacius.....	
Basilus.....	
Aconius Probianus Under Libius Severus.....	
Basilus.....	
Lupercianus.....	
Felix Himilco.....	

(C) PREFECTS OF THE COURTROOM OF AFRICA

(W. ENSSLIN, *Pr. pr. Africae, RE, XXII, 2, col. 2496*)

Menander.....	22 June 320 - 6 July 322
the. Aradius Valerius Proculus.....	to 330 ?
Felix.....	18 April 333 - 9 March 336
Gregorius.....	21 July 336 - 4 Feb 337
Nestorius Timonianus.....	between 22 May 337 and 9 Sep 337

The territory of Africa was after the death of Constantine in the administration of the attached to the praetorian court of Italy prefects

2. FROM THE RECONQUEST UNDER JUSTINIAN

Archelaus.....	534
Solomon.....	534 - 536
Symmachus.....	536
Solomon.....	539 - 543

Sergius	after	543
Athanasius		54 ⁶
Paulus		552
Boethius.....	between	555 and 56o
Iohannes.....		558
Thomas	between	565 and 570
Theodorus.....		569/7 ⁰
Thomas	between	S78 and 582
Theodorus.....		582
Iohannes.....	between	590 and 600
Pantaleon		594
Innocentius		600
Gregorius.....		627
Georgius		641

(D) PREFECTS OF THE COURT OF ITALY

from Justinian I

(W. ENSSLIN, Pr. pr. Italiae, RE, XXII, 2, col. 2498.)

Athanasius		54 ⁰
Maximinus.....	June	542
Theodorus		
Antiochus.....	circa	55 ² - 554
Pamphronius (Nov. Iust., Appendix		
VIII, E. STEIN, Studien, 106).....		
Longinus.....	circa	567 -572
Mamilius.....	before	591
Georgius		591
Gregorius.....		595
Iohannes.....	circa	598
Iohannes.....		600
Theodorus Calliopas	circa	642
Flavius Parsinus	before	68i

(E) PREFECTS OF THE COURT OF

ILLYRICUM (W. ENSSLIN, Pr. pr. Illyrici, RE,

XXII, 2, col. 2497)

Anatolius	357 -	36o
Florentius.....	36o -	361
S. Petronius Probus	3o Sept. 376	
Iulius Ausonius		378
Olybrius		37 ⁸ /79
Licinius	14 Sept. 385	
Clearchus.....	before the end of	396
Anatolius	7 June 397 - 12 Nov. 399	
Herculius	9 Apr. 407 - June 24, 410	
Leontius.....	17 August 413 - 16 Apr 413	
Strategius.....	31 Oct. 415	
Philippus.....	6 August 42o - 14 July 421	
Nestorius	29 Apr. 422	
I sidorus	1o oct. 423 - 22 Apr. 424	
Antiochus	14 Oct. 427	
Simplicius Reginus	29 Jan. 435 - 3 August 435	
Eubulus.....	3 Apr 436	
Thalassius	H August 439 - 7 Sept. 439	
Theodorus.....	29 Nov 444	
Salomo.....		Apr. 449
Eulogius.....	before	8 Oct. 451
Valentinianus.....	13 March 452 - 28 July 452	
Eusebius.....	20 Feb 463	
Callicrates	I Sept. 468 - March 28, 469	

Protadius	29 Apr. 473	
Paulus	16 March 474	
Thomas	Nov. 17, 500	
Iohannes under Zeno	479 -	480
Iohannes under Anastasius	517	
Spartiatius under Anastasius (491-518)		
N	519	
Archelaus	before	524
Stephanus	circa	529
Basilides		529
Domiņicus	15 Apr. 535 - 7 Apr. 540	
Elias	1 June 541 - 12/13 Dec 541	
n.	556 (Nov. Just., CXXIV)	
Iobinus	Nov. 591 -	Mar. 592

V

GREEK EMPERORS OF TREBIZOND

(GREAT KOMNENOS)

Alexios (I), April 1204-20 Feb. 1222.
 Andronikos (I) Gido, Feb. 1222-1235.
 Iohannes (I) Axush, 1235-1238.
 Manouël (I), 1238-March 1263.
 Andronikos (II), March 1263-4 March 1267.
 Georgios, March 1267-June 1280.
 Iohannes (II), June 1280-16 August 1297.
 Alexios (II), 16 August 1297-3 May 1330.
 Andronikos (III), 3 May 1330-8 Jan. 1332.
 Manouël (II), 8 Jan. 1332-Sept. 1332.
 Basileios, 22 Sept. 1332-6 April 1340.
 Eirènè Palaiologina, 6 April 1340-17 July. 1341.
 Anna Anachoutlou, 17 July 1341-30 July. 1341.
 Michaël, 30 July 1341-7 August 1341.
 Anna Anachoutlou, 7 August 1341-4 Sept. 1342.
 Iohannes (III), Sept. 4 (crowned Sept. 9) 1342-May 3, 1344.
 Michael (again), May 3 (crowned May 21) 1344-13 Dec. 1349.
 Iohannes Alexios III, 13 Dec. 1349 (crowned 21 May 1350)-20 March 1390.
 Manouël (III), 20 March 1390-5 March 1412.
 Alexios (IV), 5 March 1412-Sept./Oct. (before 28) 1429.
 Iohannes (IV) Kaloiohannēs (Kakoiohannes), 1429-1458.
 David, 1458-1461 (about mid-August, capture of Trebizond by the Turks, cf. Fr. BABINGER, *REB*, VII, 1949, 205-207).

Vi

GREEK EMPERORS AND DESPOTS OF THESSALONIKI

Theodore Angel Komnenos Doukas, despot of Epirus	1215 ? - 1224
Emperor in Thessaloniki	1224 - 1230
Manuel, brother of the above, despot of Epirus and Thessalonica	1230 - 1237-1238 (1)
John, son of Theodore, despot	circa 1238-1244
Demetrius, brother of the above, despot	1244 - 1246
In 1246, the Despotate of Thessalonica was reunited with the Empire of Nicaea.	

(1) Cf. Tommaso BERTELÈ, *Monete di Giovanni Comneno Duca imperatore di Salonicco (1237-1244)*, Estratto della Rivista *Numismatica*, N. 1-6. Gennaio-Dicembre 1950, p. 8.

Vii

GREEK DESPOTS OF EPIRUS

Michel I Angelo Komnenos Doukas	1205 ? - 1215 ?
Theodore, brother of the above, despot	1215 ? - 1224
Emperor in Thessaloniki.....	1224 - 1230
Manuel, brother of the preceding, despot	1230 - 1236 ?
Michael II, son of Michael I, despot	1236 ? - 1271 ?
Nikephoros I, son of Michael II	1271 ? - 1296 ?
Thomas, son of the above	1296 ? - 1318

Viii

DUKES OF NEOPATRAS OF THE FAMILY OF ANGELS

(W. MILLER-LAMPROS, 'IaTopi.or. (Dpexyzoxpy.-:Cog èv 'Enc3t (1204-1566)
Athens, 1909-1910, II, p. 44(2)

John I Angelus, Duke of Neoppatras.....	1271 - 1295
Constantine Angelus	1295 - 1303
John II Angelo	1303 - 1318
Then the duchy passed to that of Athens.	

I x

GREEK DESPOTS OF MOREA (MISTRA)

(D. A. ZAKYTHINOS, *Le despotat grec de Morée*, 2 vol., Paris, 1932-1953)

I. - UNDER THE CANTACUZÈNES

Manuel Cantacuzène, son of John VI	1348 - 1380
Mathieu Cantacuzène, brother of the above	1380 - 1383
Demetrius Cantacuzene, son of Mathieu	1383

. - UNDER PALEOLOGISTS

Theodore I, younger son of Emperor John V and Helena Cantacuzène	1383 - 1407
Theodore II, son of Manuel II Palaiologos	1407 - 1443
reigned alone	1407 - 1428
with his brothers Constantine and Thomas	1428 - 1443
Constantine and Thomas	1443 - 1449
Constantine in 1449 became emperor.	
Thomas and Demetrius, his brother	1,44 - 1460
1460 capture of Mistra by the Turks.	

• VI

HISTORICAL LISTS

(continued)

(B) PERSIA, CAUCASUS AND ISLAM

I. - Sassanid kings of Persia.

II. — Princes and Kings of Abkhazia and Georgia.

III. — Kings of Armenia:

- A) The Arsacids;
- B) The Bagratids;
- C) The Rubenians.

IV. - Muslim sovereigns:

- 1. The Caliphs;
- 2. Particular preseldju-kid dynasties:
 - A) Egypt and the Eastern Maghreb;
 - B) Spain;
 - C) Western Iran and Iraq;

) Azerbaijan and the-Armenian borders;

- A) Upper Mesopotamia;
- B) Upper Syria;

3. Seljuks (Iran, Mesopotamia, Syria);

4. Posteljuk dynasties:

- A) Zenghides
- B) Ayyûbides;
- C) Dynasties of Asia Minor(xie-xieiie centuries);
- D) Dynasties of Asia Minor(xive-xve centuries);

5. Early Ottomans.

I

SASSANID KINGS OF PERSIA

(After Th. NÜLDEKE, *Geschichte der Perser und Araber zur Zeit der Sassaniden*, Leiden, 1879; completed and corrected by V. F. BUCHNER, *Encyclopedia of Islam*, art. Sassanides, p. 185, Leiden-Paris, 1,934.)

Ardashîr I	226 - 241
Shapûr I	241 - 272
Hurmizd I	272 - 273 I year and 10 days
Bahrâm I	273 - 276
Bahrâm II	276 - 293
Bahrâm III	293 4 months
Narsai	293 - 303
Hurmizd II	303 - 310
Adharnarsai	310
Shapûr II	310 - 379 at the end of summer
Arashîr II	379 - 383
Shapûr III	383 - 388 (or 387; cf. <i>RE</i> ² , <i>II</i> 1, col. 2355)
Bahrâm IV	388 - 399
Yazdigird I	399 - 420
Bahrâm V	4 ²⁰ - 438
Yazdigird II	438 - 457
Hurmizd III	457 - 459
Firûz	459 - 484 start
Balâsh	484 - 488
Kawâdh I	488 - 531 13 Sep.
Khusraw I	13 Sep 531 - 579 February
Hurmizd IV	Feb 579 - 590 summer
Khusraw II	Summer 590 - 628 25 or 29 February
Kawâdh II	Feb. 628 - September
Arashîr III	Sept. 628 - 630 27 April
Several ephemeral regents (cf. JUSTI, <i>Geschichte des alten Per-siens</i> , Berlin, 1879)	
Yazdigird III	632 - 651

I i

PRINCES AND KINGS OF ABKHAZIA AND GEORGIA

(After C. TOUMANOFF, *Chronology of the Kings of Abasgia*, *Le Muséon*, 69, 1956, 77-82; A. MANVELICHVILI, *Histoire de Géorgie*, Paris, 1951, 145-147 et tableau de la p. 453 ; W. E. D. ALLEN, *A history of the Georgian people*, London, 1932.)

Kings of AbkhaziaTao-Klarjetia
(C. Tumanoff) (I)

Leo I.....	c. 736 - 76 ⁶ / ₇
Leo II, takes the title of king	766/7 - 810/1
Theodosius II	810/1 - 83 ⁶ / ₇
Demetrius II	836/7 - 871/2
George I	871/2 - 877/8
John	877/8 - c. 879 to
Adarnassé.....	879 - 887
Bagrat I	c. 887 - 899
Constantine III	899 - 915/6
George II	915/6 - 959/6 ⁰
Leo III	959/6 ⁰ - 968/9
Demetrius III	968/9 - 975/6
Theodosius III	975/ ⁶ 7 97 ⁸
Bagrat III (II of Abkhazia), heir of David the Great, also reaps the Success- zion of Theodosius III, blinded and also without children.....	978 - 1014
Regency of Gourguen, his Father	978 - ?

Princes and kings of Iberia
region
(A. Manvelishvili)

Ashot I Curopalate	786 - 830 (2)
Adarnassé	
Bagrat I Curopalate	876
David I Curopalate	876 - 881
Gourguen Curopalate	881 - 891
Adarnassé, King of Iberia	888 - 923
David, King of Iberia	9 ² 3 - 937
Ashot II Curopalate	m. in 954
Soumbath Curopalate	954 - 95 ⁸
Adarnassé Curopalate	958 - 961
" David the Great	961 - m. in 1001
Bagrat (grandson of Ba- Grat II of Khartlie)proclaimedheir to the throne by David the Great, childless, reigns under Ap- peeling of Bagrat Iii..	1001 - 1014

KINGS OF ABKHAZIANS AND GEORGIANS

(After W. E. D. ALLEN, *a history of the Georgian People* London, 1932)

The kingdom was constituted at the end of the tenth century by a member of the ruling family of Bagratides Bagrat III, died 1014.

Giorgi I.....	1014 - 1027	
Bagrat Iv	1027 - 1072	
Giorgi II	1072 - 1089	
David II	1089 - 1125	
dmitri	1125 - 1154	1156
Giorgi III..... towar	1155 - 1184	
Tamara Queen	1184-1212	
Giorgi IV	1212 - 1223	
Rusudan Queen	1223 -1,247	
David IV		
David V	1247 - 1269	
dmitri li	1269 - 1289	
Wakhtang li	1289 - 1291	
David VI		
Wakhtang Iii	1291 - 1299	
Giorgi V	1299 - 1346	
Giorgi VI	1310 - 1318	
David VII	1318 - 1360	
Bagrat V	1360 - 1395	
Giorgi VII	1395 - 1407	
Constantin.....	1407 - 1413	
Alexander	1413 -1,443	
Giorgi VIII.....	1443	

(1) Correct according to this new list and the observations of Toumanoffp. So-Si, nos. 599 and 609 of the *Regestes* of patr. of Constantinople.

(2) For the date of 830 instead of 826, date of J. Marquart, *Osteuropiische und ostasiatische Streilziigen*, 1903, 408, maintained by Manvelishvili, see Tumanoff, *The Museum*, 66, 1957, 83-S5.

Iii

KINGS OF ARMENIA

(K. J. Basmadjian, Timeline of the history of Armenia, *ROC, XIX* (1914), p. 292 sq.; René GROUSSET *History of Armenia*, Paris, 1947; N. AKINIAN, Die Reihenfolge some Bischöfe Armeniens of the 3. und 4. Jahrhunderts (219-439), *ab LXVII* (1949), p. 80; G. G. MIKAELIAN, *Istorzjakilikijskogo armjanskogo gosudarstva*, Yerevan, 1952.)

(a) ARSACIDS

Khosrov I	m. 216,217
Tiridates II	- 253,253 -
<i>interim</i> (Artavazdes)	272 282
Khosrov II	294 272 281
Tiran I	295 - 297
<i>interim</i>	298 - 338
Archak II	339 - 349 ³
Tiran II	333 476 80 ⁴⁹⁹
Archak III	380 333
Pap	768 4 48
Varazdat	338 845 :
<i>interim</i>	338 8 76 387 -
Archak IV	400 401
Khosrov III	410 410 -
<i>interim</i>	420 421 -
Vram-Chapouh	428 652 ⁴ -
Artashes	885- ⁶⁵² 5
Persian hegemony of the Sassanids (1).	
Arab hegemony (2)	

(b) BAGRATIDS

Ashot I	885 - 890
Sembat I	890 - 914
Ashot II	914- 928 or 929
Abas	929 - 952 953
Ashot III	gold
Sembat II	953 - 977
Gagik I	977 - 989
Hovhannes-Sembat (III)	989/990 - 1020
Ashot IV anti-king	1020 - 1040
Gagik II	1042 ? - ¹⁰ 45 (capture of Ani by the

Armenia was then divided into five kingdoms detached from the central government:

- 1) " The Kingdom of " *Kars* 962-1064 (cadet branch of the Bagratids);
- 2) " The Kingdom of " *Iory* or Albania, 980-1256?;
- 3) " The Kingdom of " *Kakhêth* 1039-1102;
- 4) " The Kingdom of " *Vaspourakan* 908-1021;
- 5) " The Kingdom of the *Siunids* circa 920-1166.

(1) See List of Governors in BASMADJIAN, art. cited, 293-294.

(2) See List of governors in J. LAURENT, *Armenia between Byzantium and Islam*, Paris, 1919, 336-347; from 750, R. VASMER, *Chronology der arabischen Statthalter :inter den A bbasiden...*, 750-887, Wien, 1931.

(c) RUBENIANS
 . (PRINCES AND KINGS OF LESSER ARMENIA)

First local lords in the central Taurus; expansion into Cilicia began around 1121.

Ruben I	1080 - 1095
Constantine I	1095 - 1099
Thoros I	1100 - 1129
Leo I	1129-1137, died in Constantinople, 1141
<i>Byzantine domination</i>	1137 - 1145 1145 - 1169
Thoros II	1170 - 1175 1175 - 1187
Meleh	1187 - 1219 (king of
Reuben II	1198 / 99 - 1219), first
Leo II (I)	king
Isabelle	1219 - 1252
Philip of Antioch, husband of	1222 - 1225
Isabella	1226 - 1270
Hetum I, second husband of Isabella	1270 - 1289
Leo III (II)	1289 - 1293
Hetum II	1296 - 1298, usurper
Sembat	1298 - 1299
Constantine II (I)	1299 - 1301
Hetum II	1301-1307 (according to Mikaelian : 1305-1307)
Leo IV (III)	1307 - 1320
Ochin	1320 - 1342
Leo V (IV)	1342 - (Jean de Lusignan, cousin of Léon V)
Constantine III (II)	1342-1344 (Guy de Lusignan, brother of the above)
	1345-1363, usurper
Constantine IV (III)	1365 -1375 : several kings
<i>period of anarchy</i>	1365-1369, King of Cyprus
Pierre de Lusignan	1365 - 1373
Constantine V (IV)	1365-1375, son of Constantine III, died in Paris in 1393
Leo VI (V)	

Destruction of the kingdom by the Saracens in 1375.

The title of King of Armenia, after 1393, was borne by the kings of Cyprus.

I v

MUSLIM RULERS

The lists concerning the Muslim East were drawn up by M. Cl. CAHEN according to: *L'encyclopédie de l'Islam*, Leiden-Paris, 1913-1938; E. DE ZAMBAUR, *Manuel de généalogie et de chronologie pour l'histoire de l'Islam*, Hanover, 1927; a number of special works, indicated in their place. The data were possibly supplemented or corrected by Mr Cl. Cahen from his personal research.

For the convenience of the reader, who, for further information, will refer above all to the *Encyclopedia of Islam*, the various transcriptions that share the Arabizers have been chosen; however, to avoid typographical complications, the following has been replaced:

par ç
 u must give its opinion or
 l'parq

The adopted transcription has the disadvantage of noting sh, which for the transcription of other languages is noted; but, if one had adopted s, logic would have to adopt also g for dj, g for

gh, n for kh, etc. The dots of the pointed letters were removed, thus confusing two different Arabic letters, but without great danger to the pronunciation or greek transcriptions.

Hegira (Muhammad in Medina)622 Death of Muhammad 11/632 (1 i June)

1. CALIPHS

(YEAR OF THE HEGIRA AND YEAR OF CHRIST) a)

"Orthodox"

Abu Bakr	11/632, in Medina	'Uthmân (Othman)	23/644, in Medina
'Umar (Omar)	13/634, —	'Ali	
.....	35/656, —		

(b) *Umayyads (Omayyads), in Damascus*

Muawiyah I	41/661	'Umar II.....	
Yazid I	60/680	Yazid II	
Muawiyah II	64/683	Hishâm	
Marwan I	64/684	Walid II	
Abdalmalik	65/685	Yazid III	
Walid I	86/705	Ibrâbîm	
Sulaimân.....	96/715	Marwan II	127/744

c) *'Abbâsides, in Baghdad from Mançûr, Samarra from Mu'tacim, Baghdad then*

Saffâh	132/750	Râdî.....	322/934
Mançûr	136/754	Muttaqî.....	329 /940
Mahdî	158/775	Mustakfi	333/944
Hâdî.....	169/785	Mutî '	334/946
Rashîd(Hârûn ar-)	170/786	Tâi.....	363 '974
Amin	193/809	Qâdir	381 991
Mamûn	198/813	Qâim	422:1031
Mu etacim	218/833	Muqtadî	467/1075
Wâthiq.....	227/842	Musta'hir.....	487/1094
Mutawakkil	232/847	Mustarshid	512/1118
Muntacir.....	247/861	Rashid.....	529/1135
Musta ' in	248/862	Muktafi	530:1136
Mu'tazz.....	252/866	Mustandjid.....	555'1160
Muhtadî.....	255/869	Mustadi.....	566/1170
Mu 'Tarnid.....	256/870	Nâcir	575 '1180
Mu'tadid	279/892	?,bitter.....	622/1225
Muktafi.....	289/902	Mustancir.....	623/1226
Muqtadir.....	295/908	Musta'cim	640/1242
Qâhir	320/932		

In 1258, the Caliphate of Baghdad was destroyed by the Mongols; a theoretical Caliphate was reconstituted in Cairo, which lasted until the Ottoman conquest.

2. PARTICULAR PRE-ESELJUK DYNASTIES

A) EGYPT AND THE EASTERN MAGHREB (TUNISIA)

a) *Pre-fascist Egypt: Tulunides (2541868-2921905)*

Ahmad b. Tûlûn, governor of E- gypt.....	254/ 868	Djaïsh abû'l- ' Asâkir	282/ 895
then autonomous.		Hârûn	283/ 896
Khumarawah	270/ 883	Shayban	292/ 905

(Same year, direct reannexion by the Caliphate)

Ikhshidides (327/939-358/969):

Muhammad b. Tughdj, ruler- Neur.....	321/ 933	Ali.....	349/ 960
then autonomous with the title of Ikhshid.....	327/ 939	Regency of the Eunuch Kâfûr 355/966).	
Anûdjûr.....	335/ 946	Ahmad	357/ 968

(In 969 Egypt was taken by the Fatimids)

(b) Pre-fatimide Eastern Maghreb (and Sicily). Aghlabides

Ibrâhîm I.....		Ziyâdatallah Ii	250/ 860
Abdallah Here	184/ 800		
	197/ 812	Muhammad Ii	250/ 860
Ziyâdatallah I	202/ 817	Ibrâhîm Ii	261/ 875
Abû 'I gal	223/ 838	'Abdallah Ii	289/ 902
226/ 841 Muhammad I		Ziyâdatallah III (expelled in 296/909) by the Fatimid army)	290/ 903
Ahmad	242/ 856		

(c) The Fatimids, Schismatic Caliphs (in the Maghreb, until 258/969, in Cairo since that date)

Mahdî Uba 'idallah.....	297/		487/1094
Qâim.....	934,910	Mu'izz	—
Mançûr.....	334/ 945	I:Îâfîz	1140
Mu 'izz	341/ 952	7âfir	113
•.....A	365/ 975	Fâiz	113
zîz.....	386/ 996	'Adid (dethroned in 567/1171 'Saladin).....	by 1154/901 555/1160
Zâhir.....			
Mustancîr	427/1034		

(B) SPAIN

Umayyads (emirs until 929, autonomous caliphs since that date)

•.....A	138/ 756	(= Nâcir since 317/929).	
bdarrahan I.....	172/ 788	Hakam II	349/ 261
Hishâm I	180/ 796	Hishâm Ii	365/ 976
•.....A	207/ 822	(Rege edces) of Ibn damaged 'Amir	
Muhammad I	238/ 852	Mançûr, 370/981 ; from Muzaf-	
Mundhir.....	273/ 886	Far392/1002; d"Abdarrahan	
•.....A	275/ 888	Sanchuelo, 398/1008)	
Abdarrahan Iii.....	299/ 912	Muhammad b. Hishâm	399/1009

Then anarchy and fragmentation

(C) WESTERN IRAN AND IRAQ

Bûyides (gold) Buwa'ihides)(main branch only) in Baghdad

mu "izz ad-daula.....	334/ 945	Çamçam ad-daula.....	372/ 983
•.....Iz	356/ 967	Bahâ ad-daula.....	380/ 990
"Adud ad-daula	367/ 977		

The decadent dynasty lasted until 447/1,055, when Baghdad was occupied by the Seljuks

(D) AZERBAIJAN AND ARMENIAN BORDERS

Sâdjides

(Abû Sâdj Dîwdâd, died In	266/880)	Yûsuf.....	288/901
Afshîn	276/889	Abû 'l-Musâfir Fath	315/927
(Dîwdâd Ii	288/901)		

318/930, Abbasid reconquest

Muslim lords of the Armenian borders (Qaïsites of Mantzikert, Shaïbanides of southern Armenia, etc.), cf. J. LAURENT, *L'Arménie entre Byzance et l'Islam*, p. 320-331 et 336-347 M. CANARD, *Les Hamdânides, I*, 47¹⁻⁴⁷⁴, 481-485, 630-632; where one finds the necessary references for the complicated establishment of their lists.

Musâfirides (Azerbaijan branch 4jan)

Marubân..... 3

His sons Djustân, Ibrahim, Nâcir, and their uncle Wahsudân d^{3e}0/9Tâ^{4r}1m in competition.
Abû'l-Haïdjâ son of Ibrahim defeated by the Rawwâdites.

Rawweed

(Mostly) Wahsudân b. Mamlân, before 420-after 446

Shaddâdides of Arrân

Muhammad b. Shaddâd, mid-tenth century	375/985	Abû'l-Aswâr, son of Fadl(ûn), in Dwin, since	
Fadl(ûn) I	375/985	Fadl(ûn) II	444/121 / 1100/4292
Later	Min 424/1031	in Arrân, in	444/121 / 1100/4292
Anushirân	441/1049	Fadl(ûn) III	444/121 / 1100/4292

In 467/1075, annexation seljuk direct
A brother of Fadlûn, Minutshihir, received *Ani*, where his descendants remained Georgian from 556/1161. Cf. V. MINORSKY, *Studies in caucasian history*, Cambridge, 1953. until the conquest

(E) UPPER MESOPOTAMIA

Hamdanides (in Mosul and Diyâr Bakr)

Abû'l-Haïdjâ b. Hamdan, governor	293/905 - 303/915	Abû Taghlib	356/967
and	313/925 - 317/929	Conquest of The Pyride ..	367/978
Nâcir ad-daula	317/929	' Uqâilides (in Mosul) only)	386/996 -
482/1089			

Seljuk conquest (for the Hamdanids of Aleppo, cf. *infra*)

Marwanides (in Diyâr Bakr)

Masan b. Marwan	380/990	Naçr	453/1061
Sa *ki	386/996	Mançûr	472/1080
Ahmad	401/1011	Seljuk conquest	478/1085

Numaïrites (in Diyâr Modar)

(from the end of the xe s. to 479/1086) (*Seljuk conquest*)

F) UPPER SYRIA

Hamdanides of

Aleppo

392/1002
399/1008
406/1016

Saif ad-daula (brother of Nâcir ad-daula of Mosul)

333/944
356/1067

Regency of the eunuch Lulu.....
Mançûr b. Lulu.....
Fatimid conquest

Mirdâsides of Aleppo

Çâlih.b. Mirdâs	415/1025	Naçr	466/1074
Naçr and Thamâl in conflict	420/1029	Sâbiq	468/1076
Fatimid occupation	444/1053	Conquest of ' Uqâilide Muslim b.	
Mahmûd, Thamâl and 'Atiya in conflict	452/1060	Quraish	472/1080
Mahmûd alone	457/1065	Seljuk conquest	478/1085

Banû'Ammâr of Tripoli(mid-eleventh S. at 502/1109) (*Frankish conquest*)

For the Framdanids, cf. M. CANARD, *History of the H'amdaniid dynasty of Jazîra and Syria*, I, Algiers, 1951 (Publ. de la Fac. des Lettres d'Alger, II Series, XXI).

3. SELJUKS (IRAN, MESOPOTAMIA, SYRIA)

Tughril-Beg, in Khoran, sultan,	Memûd	485/1092
in Baghdad	Barkyâruq	487/1094
Alp-Arslan	Muhammad	498/1104
Malikshâh	Etc.	

The dynasty lasted in Iran until 590/1194; for the Seljuks of Anatolia, cf. *infra*.

Syrian branch

Tutush, brother appanage of Malikshâh, independent in 485/1092; killed in 488/1095. Damascus passed to his son Duqâq, who died in 496/1106, leaving power to his *atabeg* Tughtegin, whose son, Bûrî, opened the *Bûride* dynasty (until 548/1154). Aleppo passed to Duqâq's brother, Riçiwân, whose dynasty disappeared in 511/1117. Antioch was autonomous under governor Yâghî-Siyân, from whom the Crusaders removed it in 1098. Aleppo fell to the Artuqids in 511/1117 (cf. *infra*), to the lords of Mosul in 518/1124, and to Zenghî (*infra*) in 522/1128.

4. POST-SELJUK DYNASTIES

A) Zenghides (*in Aleppo*)

Zenghî	521 in Mosul, 522/1128 in Aleppo
Nûr ad-dîn	541/1146 (Annex Damascus in 549/1154)
Çâlîlî Ismâ'îl	570/1174 (lost Damascus, 570/1174)
(Izz ad-dîn Mas'ûd (de Mos-soul)	577/1181
Conquest of Aleppo by Saladin	579/1183

(Other branches of the Zenghids ruled Mosul, Sinjar and Djafirât-ibn-'Omar until 631/1233, 617/1220 and 648/1250; in Mosul and Djazîra, they continue by the old minister Lulu, 631/1233 to 657/1259, until the Mongol conquest.)

For the *Artuqides* (or *Ortoqides*), cf. Cl. CAHEN, *Le Diyâr Bakr at the time of the first Urtuqides*, *Asian Journal*, 1935; ID., *La Syrie du Nord au temps des Croisades*, p. 277-300 et *passim*; *Encyclopédie de l'Islam*, 2nd ed., art. Artuqides.

(B) AYYÛBIDES: IN EGYPT SINCE 1169

(official suppression of the Fatimid Caliphate, 566/1171)

Damascus, 570/1174, Aleppo, 579/1183, Jerusalem (taken from the Franks), .5s.3, 11. m; later annexations in Upper Mesopotamia (especially Diyâr Bakr)

Shîrkûh (conquers Egypt as lieutenant of Nûr ad-dîn of Aleppo)	
Çalîh ad-dîn (Saladin), same year	
Azîz	564/1169
Adîl	589/1193
Adîl II	596/1199
Kâmil	615/1218
Çalîh Ayyûb	635/1238
Mu'azzam Tûrânshâh	672/1279

(In 1250 he was killed, and, after a few complex years, the regime of the Mamlûks was established, see below)

The main branch, the only one indicated above, of the Ayyûbides, resides in Egypt; multiple vassal branches reigned in Aleppo, I'. Iamâh, ijomç, Damascus, Karak, Mayâfâriqîn, Akhlât, Ijiçn-Kaîfâ, etc.; they ended during the Mongol conquest, about ten years after the overlord branch of Egypt.

C) DYNASTIES OF ASIA MINOR (XI-XIII S.)

Seljuks "of Rûm"

Sula emân b. Qutlumush arrived in Asia Minor around 1074, was killed in 1086, without an immediate successor.

Qilidj-Arslan I ^{er}	485/1092
Shahânshâh	501/1107
Mas •ûd I ^{er}	510/1116
Qilidj-Arslan II	550/1155

m. in 588/1192, having associated in 585/1189 his son Qutb ad-din, then, against him, in 1191 (?), his other son Kai-Khusrau; the latter disputed the succession to Qutb ad-din, who died in 1195 (?), and to another brother, Rukn ad-din, who expelled him in 1197 and reconstituted the Seljukunit, but died in 1204; Ka i-Khusrau **expelled** Rukn ad-din'sson, Qilidj-Arslan III, in 1205.

Kai-Kâûs	608/1211
Kai-Qubâdh	616/1219
Kai-Khusrau II	634/123
6 defeated by the Mongols in 1244.	
Ka i-Kâûs II ("Izz ad-din)	643/1245 - 6
since 646/1249 in conflict with his brother Rukn ad-din	
Qilidj-Arslan, who won definitively in 659/1261.	
Kai-Khusrau III	663/1265, etc.

The dynasty lasted, vassal of the Mongols and without any real power, until the beginning of the (Ive century.

Dânishmendites (Cappadocia and surroundings)

Dânishmend	Before 1095
Gümüshtegin Ghâzi	
Muhammad	1134- 35th
Yaghi-Basan	1140
fighting against Dhûl-Nûn who succeeded him in	1164

(1174-1177, annexation of the Dânishmendites **domains** by Qilidj-Arslan II)
(Other vassal branches, for example in Malatya-Melitene.)

Mangudjaqides ofErzinshan

Mangudjaq	Front '1'8
Ishâq	
Dâûd	
Bahramshâh	1163
Dâûdshâh	622/1225

(Other branches at Divrighi and Kughunya; they were suppressed or vassalized by Kai-Qubâdh around 1227.)

Saltuqides ofErzerûm

• Ali	Before 496/1103, probably late xle century
Saltuq	Shortly after 1123
Muhammad	563/1168
Mu?affar ad-din Malik-shah (?)	After 585/1189
• Alâ ad-din abû Mançûr	Before 593/1197

(On this date, the dynasty was replaced by a branch of the Seljuk **family** of Rûm):

Seljuks ofErzerûm

Mughîth ad-din Tughrilshâh	593/i'97
Djahânshâh	622/1225
(Annexation by Kai-Qubâdh 628/1231)	

D) DYNASTIES OF ASIA MINOR (XIV-XV

S.) *Mentesheh* (Carie)

Mentesheh	Around 1280	
Karman		
Mas 'ûd	Before 1320	
Urhan	Before 1320 -	1344/5
before		

In sharing or competing with the three sons of Ibrâhîm Mûsâ, around 1366, Ahmed Ghâzî m. 1391, and Muhammad (Mehmed) m. after 1402.

Ilyâs son of Muhammad	1402	
His sons Ahmed and Laith	1421	- 24

(1424, Ottoman annexation)

Aidin (in Smyrna)

Ghâzî Mehmed Bey son of Aidin	1308	
Ghâzî 'Umur Bey, avên	1334	
Hizir (Khidr) Bey	1348	
Isâ Bey	1360	?

1390, Ottoman conquest; 1402, restitution by Timur-Lenk

Mûsâ son of 'Isâ	1402	
'Umur II	1402	
Djüneid son of Ibrâhîm Bahâdur son of		
Mehmed	1403	

At his death, in 1425, definitive Ottoman annexation

Germyan (Kutâyeh, etc.)

The family of the sons of 'Alîshîr is first known in Eastern Asia Minor around 1240, and emigrated to Western Anatolia in 1277, where Shihâb ad-dîn Ghâzî b. 'Arishir was captured. A reliable indication can then only be given with:

Ya 'qûb I	Avant 699/1299	
Achmed	Around 730/1329	
Mûsâ	765/1387	
Ottoman conquest	1390	
Ya 'qûb II	1420-1429	
Final Ottoman conquest	1429	

White Sheep Turkomans (Akkoyunlu) (Armenia, etc.)

Attested since the middle of the tenth century; we have precise details only for:

Qara-Yûlûk	End of the tenth century to 1425	
'Alî-Beg in conflict with Hamza	838/1435 m. 1438	
Hamza	1435, then only 1438	
Djahângîr	848/1444	
Uzûn Hasan	857/1453 - 882/1477	

The dynasty lasted until 1508 (Persian conquest)

Sinope: fief of Pervâneh

Mu'in ad-dîn Sulaiman, m. in 676/1277, then of his children, etc., until Ghâzî Tchelebi (beginning of the tenth century, a little before 1340). Then passes to the Isfendiyâr-Oghlu of Qastamuni, known since the thirteenth century. First powerful prince Sulaiman-Pasha, around 1300 to 1340.

The dynasty interrupted from 1395 to 1402 by an Ottoman conquest disappeared definitively in 1445 (cf. *El*, art. *Sinub*, *Isfendiyar*, etc.).

5. EARLY OTTOMANS

(A. D. ALDERSON, *The Structure of the Ottoman Dynasty*, Oxford, 1956)

Othmân	In law, 1281; in fact, 1300; d. 1324.
Orkhân	1324; m. 1360.
Murâd I	1360; m. 1389.
Bayezid I	6-1389; dept. 28-7-1402; m. 10-3-1403.
(Invasion of Timur	1402)
Division and conflict between Isâ (Bush), Mehmed (Muhammad) (Amasya), Sulaîmân (until 1411) and Mûsâ (1411-1413) (Europe).	
Mehmed I	5-7-1413; m. 26-5-1421.
Murad II	26-5-1421; Abd. 1-12-1444; 2nd time 9-1446; m. 8-2-1451.
Melimed II Fâtîlj The Conqueror	1-12-1444; Dep. 9-1446; 2nd time 3-2-1451; m. 3-5-1481.
Yayezid II	3-5-1481; Dep. 24-4-1512; m. 26-5-1512.

V

MONGOL DYNASTIES

(B. SPULER, *Die Mongolen in Iran*, Leipzig, 1939 *Iranische Forschungen* IB. SPULER, *Die Goldene Horde, Die Mongolen In Russland*, Leipzig, 1943, p. 453)

Tshinghiz - Khan (Gengiskan)	Güyük	1246-1248
died	Môngkâ	1251-1259
Ogodâi		1229-1241

The direct overlord dynasty continued in China; from them stand out, among others, the following Iranian and European branches:

Ilkhâns of Iran

Hülâgü died In	1265	Baidû	1295
Abaqa, avên.	1265		
Ahmad Tâkûdâr	1282	Gazan	1295
Argûn	1284	Üldjaitû	1295
Ga'îkhâtû	1291		

The Golden Horde (southern and central Russia)

Batu	towards 1240-1256	Tudan M.rikâ	1280-1287
Sartaq	1256-1257	Telebogha	1287-1291
Ulaghéi (Ulaghchi)	1257	Tokhtu	1291-1313
Berke	1257-1267	Üzbeg	1313-1341
Miinkâ-Temiir		1267 - 1280	

The dynasty lasted, in decline, until the beginning of the fifteenth century)

Mamluks (Egypt and Syria)

mu'izz ad-dîn Aibek	648 / 1250	Sulâmish	677 / 1278
Mançûr Nûr ad-dîn 'All.	657 / 1259	Ashraf Khalîl	678 / 1279
Qutuz		Mançûr Qalaûn	689 / 1290
Zâhir Rukn ad 'dîn Baibars		Nâcîr Muhammad	693 / 1293
Bun- duqdârs	658 / 1260	Died in 741/1340.	
	676 / 1277		

(Interlude) Kitbogha 1294-96 and Lâdjîn 1296-98; new interlude Baibars 708 / 1308)
Tshashnègîr " The Regime " lasted until the Ottoman conquest In 922/1517

HISTORICAL LISTS

(continued)

C) THE SLAVS

- I. — Princes and Tsars of Bulgaria.
- II. - Rulers and dynasts of Serbia and Bosnia.
 - I. - Until the tenth century.
 - II. - From the xlle to the xvth century.
- III. — Princes of Novgorod, Kiev, Suzdal', Vladimir and Moscow.
 - A) Princes of Novgorod and Grand Princes of Kiev;
 - B) Grand Princes of Vladimir and Suzdal';
 - C) Grand Princes of Moscow and Vladimir.

I

PRINCES AND TSARS OF BULGARIA

(see N. ZLATARSKI, *Istorija na bǎlgarskata dǎrtava*, 3 vol., Sofia, 1927-1940; p. MUTAFaEV, *Istorija na legarskija narod*, Sofia, ed. 2, 1943 ; *Istorija na Bǎlgarija*, I, Sofia, 1954. List corrected and supplemented by I. DueEv.)

681, foundation of the protobulgar state

Iserich (Asparush)	681 - 702	Sabin	765 - 767
Tervel"	702 - 718/19	Umar	767 (40 days)
n.	718/19 - 725	Toktu.....	767 - 772
Sevar.....	725 - 740	Pagan or Bagan (Bajan).	772
Kormisos.....	740 - 756	Telerig.....	772/73 - 777
Vinech.....	756 - 762	Kardam	777/78 - 803
Telec	762 - 765		

Krum Dynasty

Krum.....	803 - 814	Vladimir	889- 893
Omurtag	814 - 831	Simeon the Great as Tsar	893-927
Malamir	831 - 836	peter	927 - 969
Presijan (Persian)	836 - 852	Boris Ii	969-972
Boris I Michail	852-889 BC	novel	979 - 997

Comitopoules

" The brothers		Samuel alone	997-1014
ComitopoulesDavid		Gabriel Radomir	1014 - 1015
Moisej, Aaron and		Ivan-Vladisvlav, son ofAa-	
Samuel son of Ni-	97 ² - 979	Ron.....	'ois - 1018

1018-118J, Byzantine domination

Revolts of Pierre Deljan		Revolts of Constantine Bo-	
(Deleanos), Ticho-mir		Din	1072 - 1081 ?
andAlousian(bone). .	1040 - 1041		

" The Asterinids

Asterian I	1186 - 1196	Constantin Tich Astern,"	
Pierre, his brother	1196 - 1197	my "laugh to a-	
Kalojan (Ivanika)Brother ...	1197 - 1207	granddaughter	1257 - 1277
Boril, nephew of the previous	1207 - 1218	of Ivan Astern Ii	
Ivan Astern II son ofaster I.	1218 - 1241	Ivajlo, married the widow of	1277 - 1279
. Koloman, son of the	1241 - 1246	Previous.....	
previous Michael II	1246 - 1257	ivan Astern III nephew of	1279 - 1280

" The Terterids

George I Terter	1280 - 1292	Theodore Svetoslav	1300 - 1322
Smilec	1292 - 1298	George II Terter.....	1322 - 1323
Tchaka, son of Nogaj			
(Tatardo mination)	1299		

" The Si,manides

Michael III If';man	1323 - 1330	ivan Siman In Tirnovo . . .	1371-1393
Ivan-Etienne Siman.....	1330-1331	ivan Sracimir (Stracimir) to	
Ivan Alexander	1331 - 1371	Vidin	1360 ? - 1396
Ivan Alexander and his sons .	circa 1350		

I i

RULERS AND DYNASTS OF SERBIA AND BOSNIA

(Lists prepared by Dj. Sp. RADOJIA("):)

I. - UNTIL THE TWELFTH CENTURY

I. SERBIA

A) *Vieslav dynasty or Vojislav*

from the second half of the vine century until the middle of the tenth century; according to Constantine Porphyrogenetes (948/49), derives its origin from a Serbian tribal leader who settled in the Balkan peninsula at the beginning of the vile century.

Princes (cipzov7zrj

Vieslav or Vojislav (liotaia0Xx(30. :), second half of the city century.

Radoslav.

Prosigoj.

Vlastimir, between 820 and 822 made himself independent of Byzantium, from 839 to 942

fight against the Bulgarians.

Mutimir, Strojimir and Gojnik, reigned for a short time together; between 854 and 860 fight against the Bulgarians.

Mutimir, only worms 860 - 891

Pribislav (114écsox.o.g) 891 - 892

Petar Gozhniković 892 - 917

Pavia Branović 917 - 920

Zaharije Pribisavljević 920 - 923

From 923 to 927, Bulgarian rule.

(aslav Klonimirović, 927-after 949; the dynasty died with him.

The western part of the Serbian state, Bosnia, separates from the eastern part, Serbia. The name Raska to designate it has only come into use since the tenth century.

B) *Dynasty of Tihomilj**joupan and great joupan*

Tihomilj, great joupan, founder of the dynasty according to a legend of the Chronicle of Duklja, second half of the tenth century.

Ljutomir, joupan long before 971 or 972 if we are to believe the account of Trebinje on Bela and the account on Pavlimir, the alleged founder of Dubrovnik.

Ljutomir, great joupan, under the supremacy of the Slavs of Macedonia, 998-1018, and perhaps even a little earlier.

Petrslav, member of the Dukljadynasty, governs under the direct authority of Duklja, 1060 ?- 1070 ? Vukan and Marko, joupan, probably members of the old dynasty, took power around 1083, ruled together or in two separate joupanies.

Vukan, great joupan, reigned alone before 1091-around 1113.

C) *Dynasty of Vukan**Grands Joupan*

Uro I Around 1113 - c. 1131, interruption c. 1126

Uro" II Around 1131 - shortly before 1155

Desa Shortly before 1155 - 1155

Uro II (2⁰) 1155 - c. 1160

Primislav or Prvoslav (flp.:J.i.(707/7.(0:-), on
 identifies him with Uro II Around 1160
 Belin 1161
 Desa (2°) 1161 - shortly after 1165, interruption in 1162
 and a little later
 Tihomir Shortly after 1165-1168

2. BOSNIA

Stefan, prince, between 1081 and 1085 and perhaps even later.
 Borić, ban, before 1154-1163.

3. TREBINJE (TRAVUNJIA)

Bela, joupan, early ninth century.

Princes (Ipzov-re. ıç)

Krajina, around 840.
 Hvalimir, second half of the DU century.
 Tudjemir or Cucimir (licsou'r(7-rip.. p'r.,;), first half of the xc century.
 Dragomir, before 998, and from 999-1018 under the Slavs of Macedonia.
 Desa, 1148 or 1149-after 1151, also ruled Hum and Zeta.

4. ZAHUMLJE (HUM)

Princes (Ipzr,v7.sç, duces, principles)

Viević(lioliaz.-',f,o'yrrar.), descendant of a pagan tribe once established on the banks of the Visla, reigned
 at the beginning of the xc century.
 Mihailo, before 913-after 949.
 Dragomir, before 998 on Trebinje and hum, from 999-1018 on Trebinje only.
 Ljutovid, c. 1042, known only by an epic song entered in the Chronicle of Duklioea.
 Desa, before 1148 or 1149-after 1151, also ruled after 1148 or 1149 over Zeta and Trebinje.

5. DUKLJA (ZETA)

Princes (Ipzov-rzç)

Predimir Before 969 - after 976, known by a single source, a
 epic song of the Chronicle of Duklated
 Petar or Petri:^{1-v} After 976 - before 998
 Jovan Vladimir Before 998 - 22 May 1016
 Stefan Vojislav 1036, 1040-1051
 Mihailo, prince 1051 - 1077
 — king 1077 - ro8i, at the end of his reign with Bodin.

Kings

Konstantin Body 108i - c. 1101
 Dobroslav To 11cd
 Koëopar 1102
 Vladimir II 1102-1114
 Djordje 1114 - 1118
 Grubea 1118 - 1125
 Djordje (2") 1125 - 1131
 Gradihna 1131-1142

princes

Radoslav 1142 - 1148 OR 1149
 Desa 1148 or 1149 - after 1151, also ruled Hum and Trebinje
 Mihailo Avant 1173-1189

II. - FROM THE TWELFTH CENTURY TO THE FIFTEENTH CENTURY

I. SERBIA

Nemanjie dynasty (116,s'-1371)

Stefan Nemanja, grand joupan, 1168-25 March 1195, monk in Hilandar under the name of Simeon, dies
 on 13 February 1200.
 Stefan, grand joupan, 1195-1202, 1202-1217.
 — king "the First Crowned", 1217-24 September 1227.
 Vuk or Vukan, grand joupan, 1202-1203.

Kings

Stefan Radoslav, 1227-1234, monk under the name of Jovan, died after 1235.
 Stefan Vladislav, 1234-spring 1243, died after 1263/64, on II November.
 Stefan Uros I, spring 1243-autumn 1276, died monk under the name of Simon, on May 1280.
 Stefan Dragutin, autumn 1276-beginning of 1282, as vassal of the king of Hungary, reigned over
 Belgrade and the surrounding country, and on North-East Bosnia from the second half of 1284
 until his death on 12 March 1316, he had recently become a monk and took the name
 Teoktist.
 Stefan Uro, II Milutin, early 1282-29 October 1321.
 Stefan Konstantin, pretender, to Zeta, 1321.
 Vladislav II, pretender, in the northern countries, 1321-1324.
 Stefan Urds III Deansky, 1321-August 1331, died II November 1331.
 Stefan IV Du?-an, king, August 1331-late November or December 1345, emperor until his
 death,
 on 20 December 1355.
 Stefan Uroz,, emperor, 1355-4 December 1371.

2. NORTHERN SERBIA

Lazar, prince, 1371-15 June 1389.
 Stefan Lazarevié, prince, 1389-1402.
 despot, 1402-19 July 1427.

Despots of the Branković dynasty (1127- 1/; 9)

Djuradj, le t messire », 1427-1429.
 — despot, 1429-24 December 1456.
 Lazar, associated with his father Djuradj with the title of despot, 18 Dec. 1446.
 — the "great despot", 1456-20 January 1458.
Regency: Hélène Palaiologos, Stefan Branković, the grand duke and gubernator Mihailo Andjelović,
 3 February 1458-31 March 1458.
 Then, without Mihailo, Stefan, despot, 31 March 1458-21 March 1459.
 Stefan Tomeevie, 21 March 1459-20 June 1459.

3. THE KOSOVO REGION

Vuk Branković, 1371-late 1395 or early 1396 and perhaps even late 1396, died October 6, 1398.
 The sons of Vuk, from 1396:
 Grgur, died 13 March 1408.
 Djuradj, later despot of Northern Serbia.
 Lazar, died on II July 1410.

4. THE REGION OF DRINA

Nikola Altomanović, joupan, late 1366-late 1373 or early 1374, died after 1395.

Kings

Vukani	1905-26 September 1905
Marko	1371-17 May 1395

Jovan Draga, despot, possibly 1365-c. 1378.
Konstantin Draga, the "messire died on May 17, 1395.

Jovan Ugljea, despot 1365 - 26 September 1371

Emperors

Simon Glogz Palaiologos	1356 - 1370 ?
Jovan Uro's Palaiologos	1370 ? - monk in 1381 under the name of Joasaf, dies c. 1422/23

Bal. W dynasty (1360–1371)

The Balié brothers from 1360:
 Stracimir, died monk under the name of Sava, 1371/72.
 Djuradj I, died in January 1378.
 Baba II, died on September 18, 1385.
 Djuradj II Stracimirović, 1385-April 1403.
 Baba III, 1403-28 April 1421.

Ivan	1465–1490
Djuradj	1490 - late 1496, died after 1503
Stefan	1496–1499

Bans

Matej Ninoslav, c. 1233-c. 1250.

Prijezda I, around 1250-1287, supported by the Hungarians, he was in competition with Ninoslav; mentioned

Stepan I and Prijezda II, mentioned in 1290.
Mladen I Suffered 1301 - June 1304
Mladen II - 1304 - 1322
Stepan I Kotromanić, died around 1316.
Stepan II 1332-1353 BC
Tvrtko I ban 1353-1377
King 1377-1391 c. 17 March

Kings

Stefan Dabia	1391 - 8 September 1395
Jelena	1395-1398
Stefan Ostoja	1398-1404
Tvrtko II Tvrtković	1404-1409
Stefan Ostoja (2°)	1409 - autumn 1418
Stepan Ostojić	1418-1421
Tvrtko II (2°)	1421 - autumn 1443
Stefan Tomas	1,443 - mid-July 1461
Stepan Tomeevic	1461 - end of May 1463
Matija, T'abanêiê, towards the end of 1465, the Turks made him king, 1476.	
Nikola Iloëki, obtained from the king of Hungary the title of king of Bosnia, ¹⁴⁷¹⁻¹⁴⁷⁷ .	

H U M

Dukes

Miroslav, shortly after 1165-1198.	
Rastko, later the first Serbian archbishop under the name of Sava, ruled for two years, certainly after June 17, 1190, either part of Hum or all of it.	
Petar	1198 - early 1227
Toljen	1227-1239
Andrija	before 1235 - c. 1250

Joupan s

Bogdan, died after 1252.	
Radoslav, last mentioned in 1254.	
Stefan, 1264.	
Vojislav Vojinović, prince, in the eastern part of Hum, before 1358-September 1363.	
Sandalj Hranić, duke, 1392-15 March 1435.	

12. HERZEGOVINA

Stepan Vukèiê Kosaêa, duke, 1435-1448.	
Duke of Saint-Sava", October 1448-22 May 1466.	
Vlatko, duke, 1466-late January 1482, died before August 1489.	

Iii

PRINCES OF NOVGOROD, KIEV, SUZDAL', VLADIMIR AND MOSCOW

(E. E. GOLUBINSKIJ, *Istoria russkoj Cerkvi*, MOSCOW, 1900-1901; N. DE BAUMGARTEN, *Genealogies... of the Rurikids from the tenth to the tenth century*, *East. Christiana*, IX (1927), n. 35, p. 5-94; ID., *Du XIII^e au xv^e*, *ibid.*, XXXV (1934), n. 94, p. 5-150; Michel DE TAUBE, *Rome et la Russie avant l'invasion des Tatars*, Paris, 1947; G. VERNADSKY, *A History of Russia; I. Ancient Russia*, New Haven, 1944; II. *Kievan Russian*, New Haven, 1948; OËERKI ISTORII S. S. S. R., I, *Drevnjaja Rus'*, Moscow, 1953. *The Russian Primary Chronicle : Laurentian Text*, translated and edited by Samuel Hazzard CROSS and Olgerd P. SHERBOWITZ-WETZER, Cambridge, Massachusetts, 1953. List reviewed by Roger PORTAL.)

(A) PRINCES OF NOVGOROD AND GRAND PRINCES OF KIEV

Rjurik I (varangian chief under the konung Èrik of Upsal, Prince of Novgorod) controversial	(862-879)?
Askol'd, varangian chief under the konung Olov de Birka, prince of Kiev	855-882?
Dir, prince of Kiev	882 ?- ?
Oleg, Scandinavian prince expelled from Denmark	
Grand Prince of Kiev Before	907-912?
Igor' I, Prince of Novgorod, Grand Prince of Kiev	941, 944-945 (913-945 (?) : Cross)
Ol'ga, Princess Regent of Kiev	945-957 (945-964 : Cross), m. 11/7/969
Svjatoslav I Igor'evič, prince c12. Novgorod	945-950
Grand Prince of Kiev	957-973 ? (964) -972 : Cross)
Jaropolk I Svjatoslavič, Grand Prince of Kiev	973-978 (co-prince 970; 972-978 : Cross), 11/6/978
S. Vladimir I Svjatoslavič, Prince of Novgorod. .	973
Grand Prince of Kiev. 980-1015 (978-1015 : Cross),	m. 15/7/1015
Svjatopolk I Vladimirovič, Prince of Turov, Grand-Prince of Kiev	1015-1016; 1018-1019
Jaroslav I Vladimirovič, called the Wise, Grand Prince of Kiev	1017; 1019-1054, M. 20/2/1054
Izjaslav I Jaroslavič, Prince of Volynsk, Grand-Prince of Kiev	1054-1068; 1069-1073; 1076-1078 (1077-1078: Cross), m. 3/9/1078
Vseslav Brjačislavič, Prince of Polock, Grand-Prince of Kiev	1068-1069, m. 14/4/1101
Svjatoslav II Jaroslavič, Prince of L'vov, Grand-Prince of Kiev	1073-1075 (1073-1076: Cross), m. 27/12/1076 1075-1076 (1076-1077: Cross); 1078-1093, m. 13/4/1093
Vsevolod I Jaroslavič, Grand Prince of Kiev.....	1093-1113, m. 16/4/1113
Svjatopolk II Izjaslavič, Grand Prince of Kiev. . . .	1113-1125, m. 19/5/1125
Vladimir II Vsevolodovič, Monomachus, grand-Prince of Kiev	1125-1132, m. 15/4/1132
Mstislav I Vladimirovič, Prince of Novgorod	1132-1138, m. 18/2/1139
Grand Prince of Kiev	
Jaropolk II Vladimirovič, Grand Prince of Kiev. ...	1138
Vjačeslav Vladimirovič, Prince of Turov, Grand-Prince of Kiev a few weeks in	1138-1146, ITL 1/8/1146
Vsevolod II Ol'govič, prince of L'vov, grand-	

Andrej III Aleksandrovié, Prince of Gorodec, Grand Prince of Vladimir	1282-1284; 1293-1304, m. 27/8/1304
Michail II Jaroslavié, Grand Prince of Tver and Vladimir	1304-1319, m. 22/II/1319
Jurij III Danilovié, Grand Prince of Moscow and Vladimir	1319-1322, m. 21/II/1325
Dmitrij II Michajlovié, Grand Prince of Tver and of Vladimir	1322-1325, m. 15/9/1325
Aleksandr II Michajlovié, Grand Prince of Tver and by Vladimir	1326-1327, m. 22 or 28/10/1339

(C) GRAND PRINCES OF MOSCOW AND VLADIMIR

Ivan I Danilovié Kalita, Grand Prince of Moscow and Vladimir	1328-1340, M. 31/3/1341
Simeon Ivanovié Gordyj, Grand Prince of Moscow and Vladimir	1340-1353, m. 27/4/1353
Ivan II Ivanovié Gordyj, Grand Prince of Moscow and Vladimir	1353-1359, m. 13/II/1359
Dmitrij I Konstantinovié, Prince of Suzdal', Grand Prince of Vladimir and Nizhny-Nov- gorod	1359-1361, m. 5/7/1383
Dmitrij II Ivanovié Donskoj, Grand Prince of Moscow-Vladimir	1362-1389, m. 19/5/1389
Vasilij I Dmitrievié, Grand Prince of Moscow- Vladimir	1389-1425, m. 27/2/1425
Vasilij II Vasil'evié Tomnyj, Grand Prince of Moscow	1425-1433; 1434-46; 1447-1462, ITI. 27/3/1462
Jurij Dmitrievié, Prince of Gale and Zvenigorod, Grand Prince of Moscow 1433-1434,	m. 5/6/1434
Vasilij III Jur'evié Kosoj, prince of Zvenigorod.	1434, m. 11/I/1448
Dmitrij III Jur'evié emjaka, prince of Galie, Grand Prince of Moscow 1446-1447,	m. 18/7/1453
Ivan III Vasil'evié, Grand Prince of Moscow and Russia, married secondly on 12 Novem- bre 1473, Sophie Paléologue, niece de l'empe- reur Constantine XII	1462-1505, m. 27/10/1506

HISTORICAL LISTS

(continued) •

D) THE LATIN EAST

- I. — Latin kings of Jerusalem.
- II. — Latin princes of Antioch.
- III. — Counts of Tripoli.
- IV. — Counts of Edessa.
- V. — Kings of Cyprus.
- VI. — Grandmasters of the Hospitallers of St. John of Jerusalem.
- VII. — Latin emperors of Constantinople.
- VIII. — Venetian podestà of Constantinople.
- IX. - Venetian bailes of Constantinople.
 . Genoese podestà of Pera-Galata.
- X. — Latin kings of Thessaloniki.
- XI. — Latin princes of Achaeus (Morea).
- XII. - Lords and Dukes of Athens.
- XIII. — Heads of the Catalan Company.
- XIV. — Dukes of the Archipelago or of Naxos.
- I. Lords of Thebes.
- XV. — Counts Palatine of Kefalonia, Dukes of Lefkada and Zante.
- II. Barons of Corinth.
- III. Marquis of Bodonitza or Thermopylae.
- XVI. - Lords of Lesbos.
- XVII. — Despots of Epirus and Janina.
- XVIII. — Counts and princes of Albania.

LATIN KINGS OF JERUSALEM

(Jean RICHARD, *Le royaume latin de Jérusalem*, Paris, 1953; LA MONTE, Chronologie de l'Orient latin, *Bulletin of the International Committee of historical Sciences*, XII, 2nd part., Paris, 1943, p. 141-202)

Godfrey of Bouillon, "confessed" of the Holy Sepulchre	1099 - 1100
Baldwin I of Boulogne, first Latin king of Jerusalem	18/4/1100 - 2/4/1118
Baldwin II of Bourcq, cousin of the previous	11/4/1118 - 1131
Fulk of Anjou, husband of Mélissende, daughter of Baldwin II	1131-1143
Baldwin III, son of Fulk and Mélissende	
reigned with his mother	1143-1152
only	1152 - 1163
Amalric, brother of Baldwin III	1163-1174
Baldwin IV, son of Amaury and Agnès de Courtenay	1174-1185
Baldwin V, nephew of the above, co-reigning	nov. 1183-1185
only	1185-1186
Capture of Jerusalem by Saladin	1187
Sybelle, sister of Baldwin IV, queen	1186-1190
Guy de Lusignan, second husband of Sybelle	1186-1192
Capture of Saint-Jean-d'Acre by the Crusaders in	1191
Isabella, daughter of Amaury and Marie Comnène, queen	1192 - 1205/6
Conrad of Montferrat, second husband of	Isabella 1192
Henry of Champagne, third husband of Isabella	1192-1197
Aymeri of Lusignan, King of Cyprus, fourth husband of Isabella	1197-1205
Marie de Montferrat, daughter of Conrad, queen, died 1212	1205/6 - 1212
Jean d'Ibelin, regent	1205 - 1210
Jean de Brienne, husband of Marie de Montferrat	1210-1225
Isabelle de Brienne, daughter of the preceding	1212-1228
Frederick II Emperor, husband of Isabella of Brienne	1225-1228
Conrad, son of Isabella and Frederick II	1228-1254
Frederick II, considered only as regent by the barons, but was	
crowned king in 1229	1228-1243
Alice of Champagne, regent	1243-1246
Henry I of Cyprus, son of Alice, Lord of the Kingdom	1246-1253
Hugh II of Lusignan, King of Cyprus, Lord of the Kingdom	1253 - 5/12/1267
Piaccenza of Antioch, regent	1253 - 27/9/1261
Isabella of Antioch, regent	1261-1263
Conradin, son of Conrad	1254 - 31/10/1268
Hugh III of Antioch-Lusignan, king of Cyprus, regent, 1263, then	
Lord of Jerusalem	1267-1269
King of Jerusalem and Cyprus	24 9/1269 - 1284
recognized at Acre and Tyre	1269-1277
recognized in Tyre only	1277-1284
Charles I of Anjou, recognized at Acre	1277-1285
John, son of Hugh of Antioch-Lusignan, recognized in Tyre	1284-1285
Charles II of Anjou, recognized at Acre	1285-1286
Henry II of Cyprus, brother of John, King of Jerusalem and Cyprus:	
crowned in Tyre	15/8/1285 - 1291
recognized at Acre	1286 - 1291

1291, prise of Acre and end of the Latin kingdom of Jerusalem

 Holders

 The Lusignans of Cyprus

Ii

LATIN PRINCES OF ANTIOCH

(**LA MONTE**, Chronology of the Latin East, *Bulletin of the International Committee of historical sciences* XII, 2nd part., Paris, 1943, 141-202; Claude **CAHEN** *Northern Syria at the time of the Crusades and the Frankish principality of Antioch*, Paris, 1940 (t. I^{er} de la Bibliothèque orientale de l'Institut français de Damas), p. 546. List reviewed by J. Richard)

Bohemond I, son of Robert Guiscard	July 1098 - 1104., m. 1111
Tancred, nephew of the above, Regent	Late Autumn 1104 - 1111
prince	tiii - 1112, M. 12 Dec.
Roger, Nephew of Tancred	1112-1119
Baldwin II, King of Jerusalem Regent	1119-1126
Bohemond II, son of Bohemond I	1126-1130
Constance, daughter of Bohemond II	1130-1163
Baldwin II, King of Jerusalem Regent	1130-1131
Fulk of Anjou, King of Jerusalem Regent	1131-1136
Raymond de Poitiers, husband of constancy	1136-1149
Baldwin III, King of Jerusalem, Regent	1149-1153
Reginald of Chatillon, second husband of constancy	1153-1160
Bohemond III, son of Constance and Raymond of Poitiers	1163-1201
Bohemond IV, son of Bohemond III, in competition with the Next.	1201-1233
Raymond Roupen, grandson of Bohemond III by his eldest son Raymond	1216-1219
Bohemond V, son of Bohemond IV	1233-1251
Bohemond VI, son of the preceding	1251-1268

1268, capture of Antioch by Baibars

Holders

Bohemond VI, Count of Tripoli	1268-1275
Bohemond VII, son of the above, Count of Tripoli	1275-1287
Lucy, daughter of Bohemond VI, Countess of Tripoli	1287-1288

1289, capture of Tripoli by the Egyptians

Philippe de Toucy, son of Lucy and Narjot from Toucy	1288 The title was claimed by
Margaret, daughter of Henry of Antioch and Isa- Good looking of Lusignan	m. 1308

Title raised by the Lusignan of Cyprus.

Iii

COUNTS OF TRIPOLI

(John rich person *The County of Tripoli under the Toulouse dynasty (1102-1187)*, Paris, 1945)

Raymond de Saint-Gilles, " head of the Christian army in Syria "	1099 - 1105
William Jourdain, Count of Cerdanya, cousin of the	preceding 1105-1109
Bertrand, son of Raymond, first Count of Tripoli	1109-1112
Pons, son of the preceding	1112-1137
Raymond II, son of Pons	1137-1152
Raymond III, son of Raymond II	1152-1187
Bohemond IV of Antioch, substituted for his brother Raymond, godson of Raymond III who had left him the county	1187 - 1233

For the succession of the counts of Tripoli, see the princes of Antioch.

Title raised in the tenth century by the Lusignan.

I v

COUNTS OF EDESSA

(LA MONTE, Chronology of the Latin East,

Bulletin of the International Committee of historical Sciences, XII, 2nd part., Paris, 1943, p. 141-202

List reviewed by J. Richard)

Baldwin I, later King of Jerusalem	1098-1100
Baldwin II, later King of Jerusalem	1100-1118
Jocelin I of Courtenay, cousin of Baldwin II	1119-1131
Jocelin II de Courtenay, son of the preceding	1131-1150, m. 1153

In 1144, loss of Edessa, reoccupied for an instant in 1146;
 Turbessel, capital of the county;
 Jocelin II was captured by the Turks in 1150.

Beatrix, wife of Jocelin II, ceded the last places to the Byzantines who immediately lost them. Title borne by Jocelin III of Courtenay, refugee in the Kingdom of Jerusalem; raised in 1365 for John, lord of the Morf in Cyprus.

V

KINGS OF CYPRUS

(G. HILL, *A History of Cyprus*, vol. II and III, Cambridge, 1948)

1191, conquest of the island by Richard I, Lionheart, King of England,
 who sold it to the Knights Templar; but the latter finding the
 administration and control of the island too expensive, returned it to Richard,
 from whom Guy de Lusignan received it.

Guy of Lusignan (King of Jerusalem, 1186-1192), Lord of Cyprus	1192 - 1194	
Aimery de Lusignan, Lord of Cyprus	1194 - 1197	
first king of Cyprus	1197 - before	1206
Hugh I, son of the above	1205 - 1218	
Henry I, son of the above	1218 - 1253	
Philip of Ibelin, regent	1218 - 1227	
Jean d'Ibelin, regent	1227 - 1228	
Frederick II, regent, then the five regents appointed by Frederick	1228 - 1229	
Jean d'Ibelin, regent	1229 - 1232	
Hugh II, son of Henry I, Lord of Jerusalem	1253 - 1267	
Hugh III, son of Bohemond IV of Antioch and cousin of Hugh II Lord of Jerusalem	1267 - 1269	

KINGS OF JERUSALEM AND CYPRUS

Hugh III of Antioch-Lusignan, king of Jerusalem.....	1269	- 1284
John I, son of the above	1284	- 1285
Brother of the Above Henry II	1285	- 1324
1306–1310, usurpation of Amalric of Lusignan, Prince of Tyre, gou verneur of the kingdom.		
Hugh IV, son of Guy de Lusignan	1324	- 1359
Peter I, son of the above	1359	- 1369
Peter II, son of the above.....	1369	- 1382
John, uncle of Peter II, Prince of Antioch, regent	1369	- 1372
James I, uncle of Peter II	1382	- 1398

KINGS OF JERUSALEM, CYPRUS AND ARMENIA

James I	1393	- 1398
Janus, son of the above	1398	- 1432
John II, son of the above	1432	- 1458
Charlotte, daughter of the above	1458	- 1485
expelled from the throne with her husband, Louis of Savoy, in 1460, guarded Cyprus the place of Cerians until 1464; after his death in 1487, the title of King of Jerusalem and Cyprus was claimed by the House of Savoy.		
James II the Bastard (postulated archbishop > of Nicosia, 1456–1460), his illegitimate of John II	1460	-1,473
James III, son of the preceding, under the regency of his mother	1,473	-1,474
Catherine Cornaro, wife of James II, and mother of James III	1472	- 1489

In 1489, Catherine Cornaro abdicated and donated the Kingdom of Cyprus to the Republic of Venice.

V i

GRAND MASTERS OF THE HOSPITALLERS
OF ST. JOHN OF JERUSALEM

(MAS-LATRIE, *Treasure of Chronology*, Paris, 1889, col. 2208; J. DELAVILLE LE ROULX *The Hospitallers in the Holy Land and Cyprus (1100-1310)*, Paris, 1904; id. *The Hospitallers in Rhodes until the death of Philibert Naillac (1310-1421)*, Paris, 1913. List reviewed by J.

IN THE HOLY LAND AND CYPRUS

Dates of this first series, except those, otherwise known, which are in brackets,
are the extreme dates on which the holder appears in the documents

Gerard	Around 1120 m. 3/9/1120
Raymond du Puy.....	Late 1120
Auger of Balben.....	gold Early – 25/10/1158
Gilbert of Assailly.....	11/29/1160 - 11/3/1162
Caste de Murols	January 1163 (after June) 1170
Rostang, anti-grandmaster	Around 1170 m. before 20/6/1172
Robert	To rr7o – 1172
Roger des Moulins	1173 Jan. 1177
Interim: Borrel, Grand-Tutor	October – m. 1/5/1187
Arnengaud of Asp	1177 – Oct. 1188
Garnier of Nablus	115/1187 – (before Sept.) 1190
	October – m. 31/8/1192 ?

TnArri: D: BYZANTINE ETCDES, I

Geoffrey of Dungeon	January 1193 - after 20/5/1202
Alfonso of Portugal	1203 1206
Jeoffroy Le Rat	1206 22/5/1207
Garin de Montaigu	1/10/1207 - (between 11/II/1227 and 1/3/1228)
Bertrand de Thessy	(1228) - 13/5/1230
Guérin	(summer 1230) - May 1236
Bertrand de Comps	20/9/1236 - April 1239
Pierre de Vieille-Bride	1240 - 18/11/1241
Guillaume de Chateauneuf	31/5/1243 - 20/2/1258
Hugh Revel	9/10/1258 - 1/4/1277
Nicolas Lorgne	3/8/1277 - 27/9/1283
Jean de Villiers	September 1285 - 20/10/1293
Eudes des Pins	30/9/1294 - m. 17/3/1296
Guillaume de Villaret	elected 26/3/1296 - 23/11/1304
Fulk of Villaret	3/11/1305 - 1310

IN RHODES

Fulk of Villaret, seized Rhodes on 15 August 1308; registered 1319, m. 1/9/1327	shortly before 8/7/1317, abdicated
Mauritius Pagnac	Election July 1317, cancelled by the shortly before
Hélión de Villeneuve	Pope in 1319 m. 7 or 27 May 1346
Dieudonné de Gozon	18/6/1319 18- m. 7/12/1353
Pierre de Corneillan	28/6/1346 End - September 1355
Roger des Pins	Dec. 1353 - 28/5/1365
Raymond Bérenger	Sept. 1355 End 16/2/1374
Robert de Juilly	Of May 1365 29/7/1377
Heredia	Beginning Of m. March 1396
Richard Caracciolo (Roman obedience)	March 1374 30 m. 27/5/1395
Philibert of Naillac	July 1377 - m. end of May 1421
Antoine Fluvian or de La Rivière, Catalan	Apr. 1383 - m. 26/10/1437
John of Lastic	Summer 1396 - m. 19/5/1454
Jacques de Milly	1421 - m. 17/8/1461
Pierre-Raymond Zacosta	'437 1 ^{er} m. 21/2/1467
Jean-Baptiste Orsini	June '454 m. 8/6/1476
Pierre d'Aubusson	1461 1467 m. 3/7/1503
Eméri d'Amboise	1476 - m. 13/11/1512
Gui de Blanchefort	10/7/1503 - m. 24/II/1513
Fabrice Carretto	22/II/1512 m. 10/1/1521
Philippe Villiers de l'Isle Adam	14/12/1513 fall of Rhodes 20/12/1522
	22/1/1521 - m. 21/3/1534

Vii

LATIN EMPERORS OF CONSTANTINOPLE

(Jean LONGNON, *L'Empire latin de Constantinople et la principauté de Morée*, Paris, '949 Liste revue par Jean Richard)

Baldwin I of Hainaut, Count of Flanders	1204 - 1205
Henri de Hainaut, his brother	1206 - 1216
Pierre de Courtenay	1217
Yolande, widow of the above, empress	1217 - 1219
Conon de Béthune, regent	1219 - 1220
Jean Colonna, Cardinal of Sainte-Praxède, Regent	1220
Robert de Courtenay	1221 - 1228
Marie, sister of Robert, widow of Théodore Lascaris, regent.....	1228
Narjot de Toucy, caesar and lease	1228 - 1231
John of Brienne, King of Jerusalem, Emperor	1231 - 1237
Anseau de Cayeux, regent	1237 - 1238
Narjot de Toucy, regent for the second time.....	1238 - 1240
Baldwin II of Courtenay	1240 - 1261

July 25, 1261, recapture of Constantinople by the Titular

Greeks

Baldwin II of Courtenay	1261 - 1273
Philip I of Courtenay	1273 - 1283
Catherine I of Courtenay	1283 - 1307
Catherine II of Valois	1308 - 1346
Philip II, I of Anjou-Taranto, by his marriage to Catherine of Valois	1313 - 1331
Robert II of Anjou-Taranto	1346 - 1364
Philip III of Anjou-Taranto	1364 - 1373
Jacques des Baux	1373 - 1383
Louis I of Anjou	1383 - 1384
Louis II of Anjou	1384 - 1387

Viii

VENETIAN PODESTÀ OF CONSTANTINOPLE

(R. L. WOLFF, *The Oath of the Venetian Podesta*, *Mel. H. Grégoire*, IV, 559-564 (AIPHOS, 12, 1,953)
List corrected and completed by F. Thiriet)

Marino Zeno	June 1205- April 1207
Ottaviano Quirino	March 1209
Marino Dandolo	Probably
Jacopo Tiepolo	August 1219- Jan. 1221 ?
Marino Michiel	March 1221
Marino Storlato	27 August 1222- I S avr. 1223
Jacopo Tiepolo (2°)	22 Feb. 1224
Teofilo Zeno	Before seven. 1228
Giovanni Quirino	Sept. 1228
Rom eo Quirino	Mai 1229
Teofilo Zeno (2°)	1235- 1238
Albertino Morosini	Avant 4/9/1238
Giovanni Michiel	1240-1241
Egidio Quirino	4 Apr. 1247
Jacopo Dolfin	15 August 1256
Marco Gradenigo	1259-1261

I x

VENETIAN BAILES OF CONSTANTINOPLE

(G. MAJER, *Sigilli di Baili veneziani in Oriente*, *Arch. Veneto*, 5th series, 1941, pp. 103-124 List corrected and completed by F. Thiriet)

Giberto Dandolo	1273	Pietro Grimani	1386
Bertucci Michiel		Simeone Dalmario	1390
Jacopo Trevisan	1303	Giovanni Miani	1389 - 1391
Fantino Dandolo	1316	Giovanni Loredan	1409
Marco Minoto	1317	Francesco Michiel	1410
Tommaso Soranzo	1318	Francesco Giustinian	1411
Marco Minoto (2°)	1319 - 1320	Fantino Viaro	1412
Marco Minoto (3°)	1322	Francesco Foscarini	1414
Tommaso Soranzo (2°)	1324 - 1325	Francesco Diedo	1416
Marino Nadal	1330 - 1332	Giovanni Zeno	1417
Niccolò Pisani	1334 - 1336	Bertucci Diedo	1418
Giovanni Gradenigo	1338	Benedetto Emo	1420
Marino Trevisan	1339 - 1341	Piero Contarini	1423
Giovanni Gradenigo (2°)	1342 - 1344	Zuanne Zorzi	1425
Marco Foscarini	1344 - 1346	Andrea Foscolo	1426
Niccolò Querini	1348 - 1350	Marco Miani	1427
Jacopo Bragadin	1350 - 1352	Marino Zane	1432
Giovanni Dolfin	1352 - 1353	Andrea Loredan	1434
Maffeo Venier	1353 - 1356	Cristoforo Marcello	1436
Domenigo Michiel	1359 - 1361	Giorgio Giorgio	1438
Niccolò Panceri	1362	Marco Quirini	1440
Francesco Bembo	1363	Marino Soranzo	1442
Andrea Querini	1363 - 1365	Andrea Foscolo (2°)	1444
Pietro Corner	1364	Dardi Moro	1446
Pasqualigo Orto	1365 - 1367	Arsenio Duedo	1448
Andrea Querini (2°)	1367	Gerolamo Minoto	1450
Andrea Gradenigo	1374		

X

GENOESE PODESTÀS OF PERA-GALATA

(Ettore Rossi, *Le lapidi genovesi delle mura di Galata*, *Atti della Società Ligure di Storia Patria*, 56, 1928 The dates are those of the documents and epigraphs that mention the characters with their quality of podestà)

Oberto Sardena	1273	Benedetto d'Arco	1348
Ingueto Spinola	1276	Lanzaroto de Castro	1356
Nicola Doria	1279	Bartolomeo Rubeo	1357
Guideto de Nigro <i>Quondam</i>	1285 (i)	Jacobo Grillo, <i>olim</i>	? (i)
Bernabò Spinola	1300	Tomaso di Iglione	1367
Gavino Tartaro	1300 - 02	Bartolomeo Pindeben	1376
Rosso Doria	1304	Luciano de Nigro	1379
Montano de Marinis	1315 - 16	Lorenzo Gentile	1382
Andalo de Maris	1335	Eliano de Camilla	1386
Costantino Doria	1338	Raffaele Doria	1386 - 87

(r) I.e document mentions the character not as being in office, but as having exercised the function.

Giovanni da Mezzano.....	1387	Imperiale Lomellino	1425 - 26
Antonio Leardo	1390	Taddeo de Zoagli.....	1426
Domenico Doria	1390	Giannotto Spinola	1427 - 28
Nicolô of Zoagli.....	1391 - 92	Filippo de Franchi	1430 - 31
Dorino Usodimare.....	1392	Ilario Imperiali.....	1432 - 33
Luchino de Bonavey.....	1396 - 97	Agostino Montaldo.....	1434
Gentile Grimaldi	1397	Ansaldo Doria	1435
Lodovico Bavoso.....	1402	Stefano de Marinis.....	1435
Baftolomeo Rubeo.....	1402	Giovanni di Levanto	1438
Giannotto Lomellino, <i>in</i> /.....	1403 (1)	Simone Macie	1439
Giovanni Sauli.....	1404	Nicolo Antonio Spinola	1440 - 42
Giovanni Botto	1404	Grimaldi's Boruel.....	1443 - 44
Napoleone Salvago.....	1405	Baldassarre Maruffo	1445 - 46
Giannotto Lomellino	1405	Luchino de Facio.....	1446 - 47
Giovanni Sauli.....	1405	Pietro di Marco, " future podestà	1447
Tomaso de Campofregoso.....	1410	Benedetto by Vivaldi	1448 - 49
Quilico of Taddei.....	1411	Francesco Cavallo	1449
Corrado Cigala	1413	Angelo Giov. Lomellino, « future	
Thedisio Doria	1418	podestat", 1451; podestà	1452
Zaccaria Spinola	1423	Francesco Giustiniani	1452

x i

LATIN KINGS OF THESSALONIKI

(LA MONTE, Chronology of the Latin East,

Bull. of Inter. Committee of hist. Sciences, XII, 2nd part., 1943, pp. 176–177)

Boniface I (or II) of Montferrat, son of William III (or V) of M., king of Salonika	1204 - 1207
Demetrius of Montferrat, son of the preceding	1207 - 1224/27
Regency of Berthold of Katzenellenbogen.....	1207 - 1217
Regency of Guy Pelavicino.....	1217 - 1224
Dethroned by Theodore, despot of Arta	1224

Holders

Boniface II (or III), Marquis of Montferrat, 1225–1254, Titular King of Thessa- lonic.....	1230 - a. 1254
Helena, Queen of Thessaloniki, wife of William dalle Carceri, <i>tercier</i> of Negrepont.....	12L3 - 1262
William V (or VII), Marquis of Montferrat, King of Thessalonica after the death of Guillaume dalle Carceri	1262 - 1284
His daughter Irene married Andronikos Palaiologos, Emperor of Constantinople, in favor of whom William renounced his title of King of Thessalonica, but Baldwin II, Latin Emperor of Constantinople, refused to recognize this trans-fert, the title then passed to the Dukes of Burgundy.	
Hugh IV, Duke of Burgundy	1266 - 1272
Robert II, duke of Burgundy	1272 - 1305
Hugh V, son of the above, Duke of Burgundy	1305 - 1313
Gave up his title of king of Thessalonica to his brother.	
Louis of Burgundy, Prince of Achae and King of Thessalonica	1313 - 1316
Odo IV, Duke of Burgundy, etc., cedes his title of Prince of Achae to Philip of Anjou-Taranto.....	1316 - ?

(1) The document mentions the person not as being in office, but as having performed the function.

Xii

LATIN PRINCES OF ACHAIE (MOREA)

(Jean LONGNON, *L'Empire latin de Constantinople et la principauté de Morée*, Paris, '949

Liste revue par Jean Richard)

Guillaume I de Champlitte, called the Champenois	1205-1209
Geoffrey I of Villehardouin, title of prince from 1210	1209 -1229
Geoffroy II de Villehardouin	1229-1246
Guillaume II de Villehardouin	1246-1278
Charles I of Anjou, King of Sicily	1278-1285
Charles II of Anjou, King of Sicily	1285 - 1289
Philippe de Hainaut, husband of Isabeau, daughter of Guillaume II de Villehardouin, and widow of Philip of Anjou since 1277	1289 - 1297
Isabeau de Villehardouin	1297-1301
Philip of Savoy, third husband of Isabeau	1301-1307
Philip I of Taranto	1307-1313
Louis of Burgundy	1313-1316
Mahaut of Hainaut, widow of the preceding	1316-1321
Jean de Gravina	1322-1333
Robert of Taranto	1333-1364
Philip II of Taranto and Marie of Bourbon, in competition	1364 - 1370
Philip II of Taranto	1370-1373
Joanna of Naples	1373-1381
Jacques de Baux	1381-1383
Various competitions	1383 - 1390
Marie of Brittany who sells her rights to the Order of the Hospital.	
Louis II of Clermont.	
Urban VI.	
Amadeus of Savoy.	
Mahiot de Coquerel, vicar general of the principality.	
Pierre de Saint-Supéran, vicar general	1390-1396
Prince	1396-1402
Marie Zaccharia, widow of the previous	1402-1404
Centurione Zaccharia	1404 -1429
In 1421, Charles de Tocco, despot of Romania, made himself master of the Elide.	
In 1427, he ceded the Elide as a dowry to his niece Madeleine (later called Theodora), who married Constantine Palaiologos, brother of the despot of Mistra, Theodore II Palaiologos.	
In 1429, Centurione gave what remained of the despotate as a dowry to his daughter Catherine, who had to use Thomas Palaiologos, brother of Constantine.	

Xiii

LORDS AND DUKES OF ATHENS

(Jean LONGNON, *L'Empire latin de Constantinople et la principauté de Morée*, Paris, 1949K.M. SETTON, *Catalan Domination of Athens (1311-1388)*, Cambridge, Mass., 1948 Liste revue par

Jean

Richard)

I. - MAISON DE LA ROCHE

Otto of La Roche	1205- 1225
Guy I de La Roche	1225-1263
Jean I de La Roche	1263-1280
Guillaume I de La Roche, first duke	1,280- 1287
Guy II de La Roche, effective since 1294	1287 - 1308
Hélène Ange-Comnène, his mother, regent	1287-1294
Gauthier de Brienne, first cousin of Guy II	1309-1311
March 15, 1311, Battle of Lake Copais, occupation of the duchy by the Catalan Company	

II. - HOUSE OF ARAGON-SICILY

Mainfroy of Aragon	1312 - 1317
William of Aragon	1317 - 1338
John of Aragon, Marquis of Randazzo.....	1338 - 1348
Frederick of Aragon, Marquis of Randazzo.....	1348 - 1355
Frederick III of Aragon, King of Sicily	1355 - 1377
Marie of Aragon, daughter of the above	1377 - 1379
Peter IV of Aragon, King of Aragon	1379 - 1387
John I, King of Aragon	1387 - 1388

III. - HOUSE OF ACCIAIUOLI

Nerio (Rainerio, Renier) I, Lord of Corinth, then Duke of Athens, blocks the Catalans in the Acropolis that he took 2 May 1388	1388 - 1394
Venetian rule	1395 - 1402
Antoine I Acciaiuoli, natural son of Nerio I, lord of Thebes, takes Athens	1403 - 1435
Nerio II Acciaiuoli, distant nephew of Antony	1435 - 1439 ?
Antony II Acciaiuoli, brother of Nerio II.....	1439 ? - 1441
Nerio II, for the second time	1441 - 1451
Francis, son of Nerio II, regency of his mother, Claire Giorgio	1451 - 1454
Franco, son of Antony II, installed by Muhammad II, assassinated	1455 - 1456

Turkish conquest in 1456

XIV

LEADERS OF THE CATALAN COMPANY, THEN VICARS GENERAL
IN THE DUCHIES OF ATHENS AND NEOPATRAS (1311-1387)

(K.M. SETTON, *Catalan Domination of Athens (1311-1388)*, Cambridge, Mass.,
1948 List reviewed by Jean
Richard)

Roger Deslaur, marshal and rector of the Company	1311 - 1312
Berenguer Estafiol d'Ampurias, vicar general	1312-1316
William Thomas, Marshal and Vice-Regent 1316-1317 Alfonso	Fadrique of Aragon-Sicily, Vicar General of Athens
then, after 1319, vicar general of Neopatra	1317 - 1330
Eudes de Novelles, vicar general	1330-1331
Nicolo Lancia, vicar general	1331-1338
Ramon Bernard, vicar general	1356
Jaime Fadrique of Aragon, vicar general	1356-1359
Gonsalvo Ximenes d'Arenos, vicar general	1359
Matteo de Moncada, vicar general	1359-1362
Pedro de Bon, Vice-Regent	1362

Revolt of Jaime Fadrique and Roger de Lluria, who is said to have proclaimed himself
vicar general

Matteo de Moncada, restored	1363 - 1367
Roger de Lluria.....	1367 - 1371
Matteo de Peralta	1371 - 1374
Luis Fadrique of Aragon, Vicar General	1375 - 1381
Felipe Dalman, Viscount of Rocaberti (already appointed vicar general in 1379, but dismissed immediately)	1381 - 1382
Ramon de Vilanova, vice-regent	1382 - 1386
Bernat de Cornellà, vicar general	1386 - 1387
(Pedro de Pau, Governor of Athens)	1386 - 1388)
Felipe Dalman de Rocaberti, restored.....	1387

X V

DUKES OF THE ARCHIPELAGO (OR DUKES OF NAXOS)

(LA MONTE, Chronology of the Latin East,

Bulletin of the International Committee of historical Sciences, XII, 2nd part., Paris, 1943, p. 185-199

List reviewed by Jean Richard)

I. - SANUDI HOUSE

Mark I Sanudo	1207 - 1227
Angelo Sanudo, son of the above	1227 - 1262
Mark II, son of the above	1262 - 1303
William I, son of the above	1303 - 1323
Nicholas I, son of the above	1323 - 1341
John I, brother of the above	1341 - 1361
Florence, daughter of John I	1361 - 1371
Nicholas II dalle Carceri, son of Florence and Jean dalle Carceri	1371 - 1383

- HOUSE OF CRISPI

Francis I Crispo	1383 - 1397
Jacques I Crispo, son of the preceding	1397 - 1418
John II, brother of the above	1418 - 1437
James II, son of the above	1437 - 1447
Jean-Jacques, son of the above	1,447 - 1,453
Nicholas Crispo, uncle of the preceding, regent	1,447 - 1,450
William II, uncle of the above, regent	1450 - 1453
William II, Duke	1453 - 1463
Francis II, nephew of William II	1463
James III, son of the above	1463 - 1480
John III, son of the above	1480 - 1494
Francis III, natural son of the preceding	1494 - 1518

The House of Crispi guarded the duchy until 1566, the date of the conquest by the Turks.

Xvi

LORDS OF THEBES

GOOD, Medieval Fortresses of Central Greece, *Bull. de Corresp. hellén.*, LXI, 1937, p. 188; LA MONTE, Chronologie de l'Orient latin, *Bull. of International Committee of hist. Sciences*, XII, 2nd part., Paris, 1943, pp. 193-194; K. SETTON, *Catalan Domination of Athens (1311-1378)*, Cambridge Mass., 1948, pp. 105-106. List reviewed by Jean Richard)

The lordship of *Estives* normally belonged to the dukes of Athens; however, half of it was subservient by Guy I de La Roche to his sister Bonne at the latter's marriage. It was Bonne's son, Nicolas II de Saint-Omer, who built the château de Saint-Orner on the Cadmée. Around 1240, Bonne de La Roche married Bela de Saint-Orner, son of Nicholas I of Saint-Omer and Margaret of Hungary.

Nicholas II of St. Omer (I of Thebes), their son	1258 - 1294
Othe de Saint-Orner, brother of the above	1294 - 1299
Nicholas III of St. Omer (II of Thebes), their nephew	1299 - 1311
1311, capture of Thebes by the Catalan Company. The castle of Saint-Omer is given to: Georges Ghisi, son of Barthélemy II, tiercier of Nègrepont (husband of Simone of Aragon, son of Alfonso I of Aragon)	1327 - 1341

	1331, destruction of the castle of Saint-Omer.	
	1379, capture of Thebes by the Navarrese Company, which placed this city under the authority of the Bailes of Achaeus (and temporarily the Hospitallers, when they bought the Morea in 1387). It seems to have been subservient, at the same time as Athens,	
or from	1388, to:	
	Nerio I Acciaiuoli	1388 - 1394
	Antony I, his natural son, who took Athens in 1403 and reunites the seignury with the duchy	1394 - 1402
	Franco Acciaiuoli, former Duke of Athens	1456 - 1460

Xvii

COUNTS PALATINE OF KEFALONIA, DUKES OF LEFKADA
AND ZAKYNTH

(LA MONTE, Chronology of the Latin East,

Bull. of Inter. Committee of hist. Sciences, XII, 2nd part., Paris, 1943, ¹⁹⁴-¹⁹⁶)

Margaritone di Brindisi, Count of Malta, Grand Admiral of Sicily, Lord durazzo and the Ionian Islands	1185 - 1194	
Matteo Orsini, son of Richard Orsini and N. di Margaritone, Count Palatine of Kefalonia, lord of Lefkada and Zante	1194 - 1238	
Riccardo Orsini, Count Palatine of Kefalonia and Zakynthia	1238 - 1278	
Count of Gravina	1284 - 1291	
Captain General of Corfu	1286 - 1289	
bailiff of Morea	1297-1300, m.	1304
Giovanni Orsini, lord of Lefkada, 1295, co-lord of Kefalonia ..	1303 - 1317	
and Zante	1303 - ?	
Count Palatine of Kefalonia	1304 - m. 1317	
Niccolo Orsini, called Komnenos, Count of Kefalonia	1317 - 1323	
Giovanni Orsini, called Komnenos, despot of Epirus and Count of Kefalonia	1323 - 1335	
Nikephoros Orsini Komnenos, Count of Kefalonia, despot of Epirus and Thessaly, under the regency of his mother	1335 - 1339	
In 1339, Anne Angelina Komnenos, was deposed by the Emperor of Constantinople; Nikephoros reigned until he was dethroned by Charles, Despot of Albania	1356 - 1358	
Lionardo I de Tocco, son of Guillaumed de Tocco and Marguerite de Zante, daughter of Giovanni Orsini, created Count of Kefalonia and Zakynthia	1357; 59 - 1381	
Duke of Lefkada and Lord of Vonizza	1362, d. 1381	
Carlo I of Tocco, Duke of Lefkada, Count Palatine of Kefalonia	1381 - 1430	
Despot of Romania	1417	
Despot of Arta	1418	
lord of Natalico and Lépante	1409	
Lord of Clarentza	1424, m. 1430	
Carlo II of Tocco, Count of Zante, 1424, Count of Kefalonia	1430 - 1448	
Duke of Lefkada and Despot of Arta, Count Palatine of Kefalonia, Ithaca and Zakynth, citizen of Venice.		
Lionardo III de Tocco, same titles	¹⁴⁴⁸ - 1,479/99	
Antonio de Tocco, Count of Kefalonia and Zante	1481 - 1483	

Holders

Carlo III of Tocco, Duke of Arta and Count of Kefalonia	1,499 - 1518
Lionardo IV de Tocco, same title	1518 - 1564

Xviii

BARONS OF CORINTH

(LA MONTE, Chronology of the Latin East,

Bull. of the Inter. Committee of hist. Sciences, XII, 2nd part., Paris, 1943, pp. 184–185LOENERTZ, Pour l'histoire du Péloponnèse au)(Ive siècle (1382–1404), *REB*, I, 1943, pp. 152–196)

Niccolo Acciaiuoli, Baron of Corinth	1358 - 1365
Angelo Acciaiuoli, nephew and adopted son of Niccolo, created in 1391 grand-Palatine of Corinth, a title he bequeathed in 1391 to his younger son James. But Angelo remaining in the West, it is his nephew Nerio who actually exercises power in Corinth, with the title of "lord of the Corinth" given to him in 1375 by Pope Gregory XI.	1365 - 1391
Nerio Acciaiuoli seized Megara in 1375, in 1385-1388 Athens of which he was made duke by Ladislaus of Hungary in 1394	1371 - 1394
Bartholomea, daughter of Nerio, lady of Corinth, wife of Theodore I, despot of Mistra, who offered Corinth to the Republic of Venice in 1397; Venice refused Corinth and Theodore had to appeal to Hospitallers of Rhodes	1394 - 1397
In the summer of 1397, Corinth was besieged by the Turks of Timurtasch and Yacoub-pasha; to save the city Theodore sold it to the Hospitallers of Rhodes	1397 - 1402/1404
Hospitallers of Rhodes	June 14 1404 - m. 1407
Theodore I Palaiologos, despot of Morea	1407 - 1421
Theodore II Palaiologos, nephew of the above	1421 ? - 1424 ?
Antony I Acciaiuoli, Duke of Athens	

Xix

MARQUIS OF BODONITZA (THERMOPYLAE)

(A. BON, Medieval Fortresses of Central Greece, *BCH*, LXI (1937), 150-151

LA MONTE, Chronology of the Latin East,

Bull. of Inter. Committee of hist. Sciences, XII, 2nd part. (1943), 192-193 List reviewed by J. Richard)

Guido Pallavicini	1204- 1237
Uberto Pallavicini, his son	1237- c. 1278
Isabella Pallavicini, sister of the above	1278 - 1286
Antonio di Flamenco, probably husband of Isabelle	1286
Tommaso Pallavicini, son or nephew of Guido	1286
Alberto Pallavicini, son of the above, killed at Lake Copais .....	. . - 1311
1311-1322, division of the lordship between albert's widow, Maria dalle Carceri, lady of the half of Bodonitza and the sixth of Nègrepont, remarried to Andrea Cornaro, lord of Scarpanto, and Alberto's daughter, Guglielma Pallavicina.	
Guglielma Pallavicina, Marchioness of Bodonitza, first married Bartolomeo Zaccaria, Lord of Damala	1327 - 1334 ?
Then Niccolo Zorzi (1335) from whom she soon separated	1335 - 1357
Francesco Zorzi, son of Niccolo	1358 - 1388 ?
Giacomo Zorzi, son of the above	1388 ? - 1410
1410, capture of Bodonitza by the Turks	
Niccolo Zorzi II, lord of Carystos, brother of the preceding, reoccupies Bodonitza.	1411 - 1414
1414, second capture of Bodonitza by the Turks	

HOLDERS (LORDS OF CARYSTOS)

Niccolo II Zorzi	1414 - 1436
Giacomo II Zorzi, son of the above	1436 - 1447
Antonio Zorzi, son of the above	1447 - 1498
1470, capture of Carystos by the Turks	

X x

LORDS OF LESVOS

(W. HEYD, *Histoire du commerce du Levant au Moyen Age*, Leipzig, 1923, 2 vol.)

Francesco Gattilusio, lord of Lesbos	1355 - m. 1401
Niccolo I Gattilusio, brother of the above	1401 - m. 1409, governor
Jacopo, son of Francesco, lord of Lesbos	1401 - m. 1427
Dorino I, son of the above	1427 - 1449 - m. 1455
Domenico (Ciriaco)	1455 - m. 1458
Niccolo II, dispossessed and strangled by the Turks	1458 - m. 1462

The last of the Gattilusi, Niccolo II had come to power in 1458 by a fratricide; besieged in his capital by Muhammad II and reduced to capitulate on September 19, 1462, he had to renounce in the hands of the victor the possession of the island, was sent to Constantinople and suffered the torment of strangulation.

X x i

DESPOTS OF EPIRUS AND JANINA

(S. Cirac ESTOPASAN, *Il legado de la basilissa Maria y de los despotas Thomas y Escui de Joannina*, Barcelona, 1943; MAS-LATRIE, 1768-1770)

I. - DESPOTS OF EPIRUS

I. THE ORSINI

Nicolas Orsini, known as Doucas-Angel-Komnenos, son of John I Orsini of cephalonia	1318 - 1323
John II Orsini, known as Doucas-Angel-Komnenos	1323 - 1335
Nikephoros II Doucas-Angel-Komnenos (Anna Palaiologina regent). . .	1335 - 1336
Reunion to the Byzantine Empire	1336 - 1349
Struggle for the return of power. Nikephoros	1338 - 1339
Anna Palaiologina	1341
Simeon Uro; Palaiologist, son of Tsar Etienne Uros III and Maria Palaiologina, married Thomaïs, daughter of John II Orsini in 1349/1350.	1349/1350 - 1356
Nikephoros II Doucas	1356 - 1359

2. ALBANIANS

Pierre Ljoscha Mazarachi, named despot of Arta and Acheloos by the Tsar Simeon Uros	1359 - 1374
Ghin Mazarachi, son of the above	1,374 - 1375

Ghin Mpoua Spata overthrows Ghin Mazarachi and is proclaimed Despot of Arta and Lentuagunt	1375 - 1400
Mauritius Mpoua Spata Sgouros, brother of the preceding, first overthrown, then restored in 1401, proclaimed after March 1408 despot of Arta and of Janina	1400 - 1418
(Paul Spata natural son of Ghin Mpoua Spata who became despot of Leperantus in 1400, cedes this place to Venice in 1407)	

II. - DESPOTS OF JANINA

(despotate formed by dismemberment of that of

Erime)

Thomas II (Preljub) Komnenos Palaiologos	136 ⁶ /1367 - 1384
Esau of Buondelmonti Acciaiuoli	1385 - after March 1408
Mauritius Mpoua Spata Gouros	after March 1408 - 1413 ?
Charles I of Tocco Buondelmonti Acciaiuoli	1413 ? - 1429
Charles II of Tocco	1429 - 1448
Leonardo of Tocco	1428 - 1460 or 1479

X x i i

COUNTS AND PRINCES OF ALBANIA

(MAS-LATRIE, 1771-1772;

THALLOCHZY *Acta and diplomata res Albania illustratia*, 2 vol., Vienna, 1913-1918)

Counts

Casnesio, son of Blado Blevisti, knight, count of Albania	1304 - 1318
William, son of the above, Marshal of Albania in 1304, Count	1318 - m. 1328
Tanussio Thopia, son of Sevasto Thopia Onof Blado Blevisti, count of Albania	1328 - M. 1338

princes

Charles Thopia, took the title of Prince of Albania in	1363 - m. January 1388
After his victory over Nikephoros II Orsini, despot of Epirus. He had his usual residence in Croia. In 1366, he obtained the Venetian On August 18, 1386, in a treaty with Venice, he was called Prince of Albania and Durazzo.	
Georges Thopia son of the preceding, lord of Durazzo ceded the city to the Venetians in March-April 1392, died in October	1388 - 1392
Helen Thopia, sister of Georges, wife of Constantine Castriot, lord from Signa and de Croya, beheaded in Durazzo in 1402	1392 - 1402
Andre Thopia, grand nephew of Charles Thopia	1402 - d. 1415
1415-1443, Turkish rule	
Georges Castriot Scanderbeg Nephew of Constantine Castriot prince	1,44 - m. 17/I/1468
John Castriotson of Georges, cedes the city of Croia to the Venetians (who abandoned it to the Turks in 1478)	1468 - 1474

HISTORICAL LISTS

(continued)

E) THE WEST

- I. — Emperors of the West.
- II. — Ostrogothic kings of Italy.
- III. — Lombard kings of Italy.
- IV. — Vandal kings of Africa.
- V. — Exarchs of Africa.
- VI. — Exarchs of Ravenna.
- VII. — Kings of Italy after Charlemagne.
- VIII. — Lombard princes of Benevento and Capua.
- IX. — Lombard princes of Salerno.
- X. — Prefects and Dukes of Amalfi.
- XI. — Dukes of Naples.
- XII. — Normans of Italy and Sicily.
- XIII. - Successors of the Norman kings of Sicily: Hohenstaufen, Aragon.
 . Kings of Sicily and Naples.
- XIV. — Doges of Venice.

I

EMPERORS OF THE WEST (ixe-xiiie CENTURY)

(*Stammtafeln zur Geschichte der europäiischen Staaten*, Bde. I u. II, 2nd ed., Marburg, 1953
H. GROTEFEND, *Taschenbuch der Zeitrechnung des deutschen Mittelalters und der Neuzeit*, 7th ed.
reviewed
by O. GROTEFEND, Leipzig, 1935, pp. I I I -I I 5)

CAROLINGIANS

(Pepin the Short March 652 - 24 Sept. 768)
Charlemagne, son of Pepin the Short, Emperor of the West in Rome 25 Dec. 800 - m. 28 Jan. 814
Louis le Pieux ou le Débonnaire, son of the preceding 28 June 814 - m. 20
June 840
Lothair I, eldest son of the preceding, associated with the empire in July 817
King of Italy in 820
crowned emperor in 823
succeeds 840 - m. 29 Sep. 855
Louis II, eldest son of the above, king of Italy in 844
succeeds the empire 855
consecrated in 872 - m. 28 August 876
Charles II, called the Bald, last son of Louis the Debonnaire,
King of France in 840
crowned emperor in Rome 25 Dec. 875 - m. 6 Oct. 877

Empire vacancy: 877-881

Charles III, called the Fat, son of Louis the German, king
of Italy in 879
crowned emperor in Rome 12 Feb. 881
King of France in 884
Deposed 11 Nov. 887 - d. 13 Jan. 888

Empire vacancy: 887-891

Guy, son of Guy, Duke of Spoleto, King of Italy in 889
crowned Emperor in Rome on 21 Feb. 891 - m. Dec. 894
Lambert, son of the preceding, associated with the empire and crowned on 30 Apr. 892
succeeded in 894
supplanted by Arnulf in 896
regained possession early 897 - m. 15 Oct. 898
Arnulf, natural son of Carloman, king of Germania late Nov. 887
crowned emperor in Rome on 22 Feb. 896 - m. 8 Dec. 898
Louis III, son of Boson, king of Arles, grandson by his mother Irmen-
gard of Emperor Louis II, consecrated in Rome on 15 or 22 Feb. 901
supplanted in 915 - m. 928
Beranger I, son of Eberhard, Duke of Friuli, crowned King of Italy in 888
crowned emperor in Rome in Nov. 915 - m. ass. 7 Apr 924

Interruption: 924-962

HOUSE OF SAXONY

Otto I the Great, King of Germania 8 August 936
King of Italy Sept. 951
crowned emperor in Rome 2 Feb. 962 - m. 7 May 973

Otto II, son of the above, king of Germania	26 May 961
associated with the empire, crowned in Rome	25 Dec. 967
succeeded	7 May 973 - m. 7 Dec. 983
Otto III, crowned King of Germania	25 Dec. 983
crowned Emperor in Rome	21 May 996 - m. 23 Jan. 1002-
Henry II, the Holy, Bavarian Prince, King of Germany	7 June 1002
King of Italy	15 May 1004
-crowned emperor in Rome	14 Feb. 1014 - m. 13 July 1024

HOUSE OF FRANCONIA

Conrad II, of Franconia, King of Germania	8 Sept. 1024
King of Italy March	1026.
crowned Emperor in Rome	26 March 1027 - m. 4 June 1039
Henry III, son of the above, succeeded him	on 4 June 1039.
crowned emperor in Rome	25 Dec. 1046 - m. 5 Oct. 1056
Henry IV, son of the above, succeeded him	on 5 Oct. 1056.
crowned Emperor in Rome	31 March 1084
	dec. 31, 1105 - d. Aug. 7, 1106
Henry V, son of the preceding, partner	1098
crowned king	6 Jan. 1099
crowned again	5 Jan. 1106
crowned emperor	12 Feb. 'III - d. 23 May 1125
Lothair II, Duke of Supplinburg 1106	
elected King of Germania	30 August 1125
crowned	13 Sept. 1125
crowned emperor in Rome	4 June 1133 - m. 4 Dec. 1137

HOUSE OF SWABIA

Conrad III, of Hohenstaufen, crowned	13 August 1138 - m. 15 Feb. 1152
Frederick I, Barbarossa, nephew of Conrad III, elected king of	
Germany	4 March 1152
crowned	9 March 1152
crowned emperor	18 June 1155 - m. 10 June 1190
Henry VI, son of the above, elected King of Germany	15 August 1169
succeeds	10 June 1190
crowned emperor	15 Apr. 1191 - m. 28 Sept. 1197
Philip of Swabia, brother of Henry VI, elected	8 March 1198
crowned	5 Sept. 1198 - m. 21 June 1208
Otto IV, of Brunswick, elected	9 July 1198
in opposition to Philip of Swabia recognized by the Pope	on July 8. 1201
crowned emperor	4 Oct. 1209 - m. 19 May
1,218 Frederick II, son of Henry VI, crowned king of the Romans in	
opposition to Otto. IV	9 Dec. 1212
crowned emperor	22 Nov. 1220 - Ill. 30 Dec. 1250 In
opposition:	
1) Henry Raspe, elected King of the Romans	22 May 1246 - m. 16 Feb. 1247
2) William of Holland, elected	3 Oct. 1247 - m. 28 Jan. 1256
Conrad IV, son of Frederick II, King of the Romans	Feb. 1237
succeeds	13 Dec. 1250 - m. 21 May 1254

diverse

William of Holland, recognized	6 Oct. 1254 - m. 1 Nov. 1256
Richard of Cornwall, elected King of the Romans	13 Jan. 1257
crowned	17 May 1257 - m. 2 Apr. 1272
Alfonso, King of Castile, elected by Pisa	18 March 1256
discarded	16 Sept. 1273 - m. 4 Apr. 1284

HOUSE OF HABSBURG

Rudolf I, elected King of Germany	29 Sep. 1273
King of the Romans	Oct. 23, 1273 - m. 15 MIL 1291 (1)
Adolf of Nassau, elected king of the Romans	5 May 1292
registered.....	23 June 1292 - m. 21 July 1298
Albert I of Austria, son of Rudolf I, elected.....	July 27 1298
crowned.....	23 August 1298 - m. I May 1308

I i

OSTROGOTHIC KINGS OF ITALY

(Ernest STEIN, *History of the Lower Empire*, t. II, Paris-Brussels-Amsterdam, 1949)

Odovacar (Odoacer)	23 August 476 - 15 March 493
Theodoric	March 493 - 30 August 526
Athalaricson of Amalasonthes	31 August 526 - 2 Oct. 534
Amalasonthesdaughter of Theodoric, regent of	
his sound Athalaric	31 August 526 - 2 Oct. 534
with Her Husband Theodat	Nov. 534 - 30 Apr. 535
.....	535 - late Nov. Theodat Nov. 536
Vitigès	late Nov. 536 - May 540
Ildibad.....	540 - 54 ¹
Eraric	54 ¹
Totila, also known as Baduila	autumn 541 - end of June 552
Teia.....	July 552 - 30 Oct. 553

I ii

LOMBARD KINGS OF ITALY

(G. ROMANO, *the dominazioni barbariche*, n. Ed. a cura di A. Solmi, Milano, 1940)

Alboin, 569-28 June 572.	Cunibert, 688-700.
Cleph, 572, after August 574.	Liutpert gold Liutbert, 700, 8 months, Under the
Interregnum, 574-5 ⁸⁴ .	guardianship of Ansprand.
Aufharic, 584-5 Sept. 590.	Raginpert, 701.
Interregnum, 9 months.	Aripert II, 701-712.
Agilulf, June 591-616.	Ansprand, 712-13 June 712.
Adaloald, 616-end 626.	Liutprand, June or July 712-spring 744.
Arioald gold Arioald, end 626-636.	ie Hildebrand ^{74-m5} his nephew, 735.
Rothari, 636-652.	Hildebrand ^{Assoc:} 4
Rodoald, 652, 6 months.	Rachis or Rachis, Sept. 745-749.
Aripert I, 653-661.	Aistulf gold Astolf, July 749-Dec. 756.
Perctarit in Milan, and Godepert in Pavia,	Didier, 757-early June 774. Partner : sound
661-662.	sound Adelchi, 759.
Grimoald, 662-671.	
Perctarit restored, 671 or 672-688. Partner :	

(1) This is the date commonly given for the death of this emperor; note, however, the very precise information of Mathias of . Neuenburg, which mentions the death of Rudolf at Gernsheim near Speyer and adds: *Deceased epitaphium In silica superposito sculpTum Tale is: Auno Domini MCCLXX X xi pridie Kalendas Octobris obiit Rudolphus Romanorum res*, edict. from Ludwig WEILAND Göttingen, 1892, p. 37. According to

I v

VANDAL KINGS OF AFRICA

(Christian COURTOIS, *Les Vandales et l'Afrique*, Paris, 1955)

Geiseric (Gaiseric, Genseric).....	428 - m.	Jan. 24	477
Huniric, son of the preceding	24/ 1/477 - m.	Dec. 22	484
Gunthamund, son of Gento.....	22/12/484 - m.	Oct. 3	496
Thrasamund, son of Gento.....	3/10/496 - m.	June 7	523
Hildiric, son of Huniric.....	7/ 6/523 - m.	June 15	530
Geilimer, son of Geilarith.....	15/ 6/530 - m.	15 Sep.	533

V

EXARCHS OF AFRICA (I)

(Ch. DIEHL, *L'Afrique byzantine*, Paris, 1896, p. 597-599)

Gennade, between 6 May 585 (2) and 591-598- ?
 Heraclius, ?-602-610- ? (died in 611 in Carthage).
 Caesarius, around 615?
 (hypothetical identification). Niketas, between
 619 and 629.
 Peter, 633.
 Gregory, July 645.

V i

EXARCHS OF RAVENNA

(H. COHN, *Die Stellung des byz. Staatshalter in Ober-und Mittelitalien (1; 40-7.51)*
 Berlin, 1889, p. 107, with comments and references, p. 108)

Narses	552 - 568	Olympius	649 - 653
Baduarius.....	575 - 577	Theodore I Calliopa (2°)	653 - ?
Smaragdus (1°).....	585 - 589	Gregorius II	? - March 1, 666?
Julianus.....	589	Theodore II, at the latest	
Romanus.....	589 - 596	since.....	678 - 687
Callinicius.....	596 - 603	Johannes II.....	687 - ?
Smaragdus (21.....	603 - after 608	Theophylactus.....	701 - 705 (sic)
Johannes I	- 616	Johannes III	700 (sic) - 710
Eleuthera.....	616 - 619	Eutychius (Io), perhaps	710 - 713
Gregorius I	619 - 625	Scholasticus.....	723 - ?
Isaac	625 - 643	Paul	723 - 726
Theodore I Calliopa (i0)	643 - c. 645	Eutychius (2°).....	727 - 751
Plato	Around 645		

Stephen and Anastasius known only by their seal

The Lombards occupy Ravenna: 752-756

Pepin takes Ravenna and donates it to the Holy See: 756

(r) We refer to this name, according to the USAge, the% governors, general of Byzantine Africa of then the emperor Maurice although, only the first of them, Gennade, bears this title in the sources. There is no doubt that his successors had the same powers and responsibilities.

(2) In an inscription of Sula of May 6, 585, on the quelle Mr. Chr. Courtois kindly caught my attention, Gennade is still que *magister militum*.

Vii

KINGS OF ITALY AFTER CHARLEMAGNE

(MAS-LATRIE, *Trésor de Chronologie*, Paris, 1889, col. 1702)Gina FASOLI, *I re d'Italia (888-962)*, Florence, 1949 (Biblioteca storica Sansoni, Nuova Serie, vol. XV)

Pepin, son of Charlemagne	13 Apr. 781 - m. 8 July 810
Bernard, son of Pépin	813 - 17 Apr. 818
Lothair I, son of Louis the Debonair	820 - 844
Louis II, son of Lothair I	844 - m. 26 August 876
Charles II the Bald	Jan. 876 - m. 6 Oct. 877
Carloman	877 - ⁸⁷⁹ m. 29 Sept. 880
Charles III, the Fat, son of Louis the German, crowned	6 Jan. 880
Emperor	881 - d. 13 Jan. 888
Berengar I	6 Jan. 888 - Feb. 889
Guy of Spoleto	16 Feb. 889 - m. 15 Oct. 894
Lambert, son of the preceding, partner	30 August 892
succeeds and is supplanted by Arnulf in 896, takes over	
possession in	896 - m. 15 Oct. 898
Arnulf	897 - m. ⁸⁹⁹ Oct. 900
Berengar I	898 - Oct. 900
Louis of Provence, elected	5 Oct. 900
crowned	22 Feb. 901
Berengar I	summer 902 - summer 902
Emperor	915 - d. 7 Apr. 924
defeated by his competitor Rudolf II of BOurgogne	on 17 July 923
Rudolf II, of Burgundy	923 - 926
Hugh of Arles	June 926 - m. 10 apr. 947
Lothair II, son of Hugh	947 - m. 22 Nov. 950
Berengar II, crowned	15 Dec. 950 - Sept. 951
Otto I	23 Sept. 951 - 962
emperor	962 - m. 7 May 973

After Otto I, the Kingdom of Italy remained with the emperors, but rarely took the crown. However, at the accession of Henry II, presents itself: Arduin of Ivrea, crowned on February 5, 1002, renounces in Sept. 1014-m. 14 Dec. 1014.

Viii

LOMBARD PRINCES OF BENEVENTO AND CAPUA

(J. GAY, *L'Italie méridionale et l'empire byzantin*, Paris, 1904; R. POUPARDIN, *Etude sur les institutions politiques des principautés lombardes de l'Italie méridionale*, Paris, 1907; ID., *Etude sur la diplomatie des princes lombards de Bénévent, Capoue et Salerne*, *Mél. Rome*, 21, 1901, 117-180; K. VOIGT, *Beitrag zur Diplomatie der langobardischen Fürsten*, Göttingen, 1902; O. BERTOLINI, *Annales Beneventani* (study and edition), *Bullettino dell' Istituto storico italiano*, 42, 1923; G. POCHETTINO, *I Longobardi nell'Italia meridionale 570-1080*, Napoli, 1930; C. G. MOR, *L'età feudale*, Milano, 1952)

A) BENEVENTO

DUKES

Zotton	570 - ?
Arichis I	S91 - 641 BC
Aion	641 - 642

Rodoald.....	642 - 647
Grimoald I.....	647 - 662
(date on which he became king of the	
Romoald I.....	662 - 687
.....(partn	
Grimoald II.....	687 - 689
Gisulf I.....	689 - 706
Romoald II.....	706 - 731
Gisulf II (son of Romuald II).....	731
Andelais or Audelachis •.....	731
Gregory.....	732 - before March 738
Godescalc.....	73 ^s - 74 ²
Gisulf III.....	74 ² - 75 ¹
Liutprand.....	751 - 758
(regent: his mother Scauniperga, 751-755).	
Arichis II.....(took	759 - 774
the title of prince in 774).	

princes

Arichis I (II) (I).....	774 - 26 August 787, regency of Adelberga
Grimoald I (III).....	May 788 - Nov./Dec. 806
Grimoald II (IV).....	Nov./Dec. 806 - July 817
Sicon.....	Oct. 817 - Sept. 832
Sicard.....	Oct. 832 - July/August 839
Radelchis I.....	August 839 - May/June 851
Radelgaire.....	May/Jun 851 - 853
Adelchis.....	Nov/Dec 853 - end of May 878
Gaideris.....	878 - Jan. 881
Radelchis II (1 ⁰).....	Jan. 881 - Oct. 884
Aion.....	884 - Oct. 890

Interregnum and occupation by the Byzantines

Guy of Spoleto.....	August 895 - 897
Guaimar I, Prince of Salerno.....	897
Peter, Bishop of Benevento.....	897
Radelchis II (2 ⁰).....	i April 897 - Nov. 899

From 899 to 981, cf. Princes of Capua-Benevento

After the death in 981 of Paldolf I "Ironhead", Prince of Capua-Benevento the Beneventans drove out his son Landolf IV and replaced him with his cousin Paldolf thus freeing himself from the tutelage of Capua

Paldolf II.....	981 - August 1014
(with an interruption, 1003-1005, being driven out by the Beneventans. Partner: Landolf V, his son, in 897, then Paldolf III, son of Landolf V, king r).	
Landolf V.....	1014 - late 1033
(partner, his son Paldolf III).	
Paldolf III.....	late 1033 - August 1051
(partner, his sons Landolf VI, August 1038).	
Leo IX, Pope.....	April Rosi - 12 March 1054
Paldolf III.....	Jan. 1055 - 1059
(now dependent on the Holy See). (Associates: Landolf VI and in August 1056 Paldolf IV, son of Landolf VI.)	
Landolf VI.....	1059 - t 7 November 1077
(partner: Paldolf IV (t 1074).	

In 1077, Benevento came under the direct rule of the Holy See.

(r) Some authors give an additional calendar counting the dukes of the name mine, others count from the princes.

(B) COUNTS OF CAPUA

Capua, attached to Salerno by the treaty of 849 between Salerno and Benevento managed to free itself from it around 861

Landolf.....	817 - 843
Landon I	843 - 861 BC
Pandon.....	861 - 862
Landon II	862
Pandonolf (1°)	862
Bishop Landolf	862 - Feb. or March 879
Pandonolf (2°)	879 - 882
Landon III	882-887
Agenolf I, Count of Capua	887-899
(Prince of Capua and Benevento in 899).	

(C) PRINCES OF CAPUA-BENEVENTO

Atenolf I, 899-April 910. Partner: his son Landolf I, Jan. 901 (Bertolini); 900 (Mor).
 Landolf I, 910-4 Oct. 943. Associates: his brother Atenolf II, 910 (dec. 940); his sons Atenolf III, 12 Jan. 936 and Landolf II, Jan. 943.
 Atenolf III, 943, driven out by his brother.
 Landolf II, 943-t 26 May 961. Partner: his son Paldolf I Iron Head, 943 (late 944: Pochettino).
 Paldolf I Iron Head, 961-981 (before 16 May). Partners: his brother Landolf III, 96r (t after 7 Oct. 969: K. Voigt); his son Landolf IV (III) (r), before 18 Dec. 969.
 Landolf IV (III), 981.

Benevento frees itself from the tutelage of Capua 981

(D) PRINCES OF CAPUA

Landolf IV (III), 981-983.
 Landenoif, another son of Paldolf I, 983-993.
 Laidolf, brother of the preceding, 993-999.
 Ademar, imposed by Otto III, 999-1000 (4 months).
 Landolf V (IV), brother of Paldolf II, Prince of Benevento, 1000-July. 1007.
 Paldolf II, son of Landolf V (IV), July 1007 (Mor: 1008)-1022.
 Paldolf III (II of Benevento), jointly. Uncle and tutor of Paldolf II, he exercised effective power, 1007 OR 1008-1014.
 Paldolf IV (III) (r °), son of the preceding. Co-regent of Paldolf II, he exercised effective power, 1016-1022.
 Partner: Paldolf V (IV), his son, 1020.
 Paldolf VI (V) of Teano, imposed by Henry II, 1022-1026.
 Paldolf IV (III) (2°), 1026-1038. Associates: Paldolf V (IV), then in 1038, Landolf VI (V), son of Paldolf V (IV).
 Guaimar V (IV), Prince of Salerno, established by Conrad III, 1038-1047.
 Paldolf IV (III) (3°), restored by Henry III, 1047-March 1050. Partners: Paldolf V (IV) and Landolf VI (V).
 Paldolf V (IV), 1050-1057. Partner: Landolf VI.
 Landolf VI (V), 1057-June 1058.

Capua is taken by the Normans. See more princes, p. 424

(i) Called Landolf III by some who do not count in the series the brother of Paldolf I. Landolf III, who was never more than an associate.

I x

LOMBARD PRINCES OF SALERNO

(M. SCHIPA, Storia del principato di Salerno, *Archivio storico per le provincie napoletane*, 12, 1887; K. VOIGT, *Beiträge zur Diplomatik der langobardischen Fürsten*, Göttingen, 1902; J. GAY, *L'Italie méridionale et l'Empire byzantin*, Paris, 1904; R. POUPARDIN, *Étude sur les institutions politiques des principautés lombardes de l'Italie méridionale*, Paris, 1907; A. HOFMEISTER, Zur Geschichte Amalfis in der byzantinischen Zeit, *BNJ*, I, 1920 (pour the reign of Manso); C. G. MOR, *L'età*

feudale, Milano, 1952)

In December 839, Salerno separated from Benevento

Sikeno or Siconolf, brother of Sicard (Prince of Benevento). (took the title of prince in 847).	839 - Dec.	849
Sicon, with Peter his godfather as regent	849 - dec.	853
Peter and Adémar his son	853 - 856	
Adémar alone	856 - August	861
Guaifer	861 - August	880
Partner: Guaimar son	877	
Guaimar I	August 880 - Feb. or March 901	
Partner: Guaimar II, his son	893	
Guaimar II	901 - June	946
Associates: his sons: Guaimar III, in 916, died? and Gisulf I	May 933	
Gisulf I (I ⁿ)	June 946 - Summer 973	
Landolf I and Landolf II, Counts of Conza, usurpers	summer 973 - May/June	
Gisulf I (2°), restored by Paldolf I Ironhead, Count of Capua	May/June 974 - Nov.M./Dec. 977	
Associates: Paldolf I and, around 877, Paldolf II, his son		
Paldolf	Nov./Dec. 977 - March	981
Paldolf II	March 981 - autumn 981	
Manso I, Duke of Amalfi	autumn 981 - nov.	983

The title of Prince of Salerno does not yet appear in a diploma of 1 December 981
but for the first time in a diploma of March 982
Partner: John I, his son

John II Lambert	nov. 983 - Sep.	999
As'sociés: his sons Guy, in 983 (died April 988) and Guaimar IV (III) (1), in 988.		
Guaimar IV (III)	999 - March	1027
Partners: his sons John III, Oct. 1015 and Guaimar V (IV), Sept. 1018.		
Guaimar V (IV)	April 1027 - 2:3 June 1052 (murdered)	
Associates: Gaiteldrime, 1027, and his sons John IV, Sept. 1037 (t 1042) and Gisulf II, March 1042.		
Paldolf III, father-in-law of Guaimar V	3 June- 10 June	1052
Gisulf II	I I June 1052 - c. 5 June 1077	

From 1077, see *Normans of Italy and Sicily*

(i) Called Guaimar III by some who do not count in the list the son of Guaimar II, of the same name.

X

PREFECTS AND DUKES OF AMALFI

(R. FILANGIERI DI CANDIDA, *Codice diplomatico Amalfitano*, t. I, Napoli 1917; t. II, Trani, 1951. A. HOFMEISTER, *Zur Geschichte Amalfis in der Byzantinischen Zeit*, BNJ, I, 1920, p. 94-127)

Amalfi, a dependency of the Duchy of Naples, was conquered by the Prince of Benevento in 836. It was liberated in 839 and constituted itself as an autonomous state with its prefects, first annual, then for life, before moving to the hereditary monarchical regime. It returned to the domination of Byzantium towards the end of the ninth century.

PREFECTS (PREFECTURII)

ANNUAL PREFECTS: little known and uncertain

PREFECTS FOR LIFE

sailor	859	-
Partner: Pulchari, his son.		
Pulchari	874	-
Sergius of Leonato (Sergius of Deodatu: Hofmeister).		
Sergius of Turcio	884	-
Manso	890	
sailor	890	-

PREFECTS AND HEREDITARY JUDGES

Manso Fusilis, prefect and spatharocandidat .		
with his son Mastalus	890	904
Mastalus, judge and imperial patrice		
with his son Léon, protospathary	? -	922 - ?
alone	? -	931 - 939
with his son John, judge and imperial patrice	939 -	947
alone	947 -	950
with his grandson Mastalus II	950 -	958
Mastalus II	952 -	958
Took in 957 the title of Duke (Hofmeister)		

Dukes

(a) AMALFI DYNASTY

Sergius I (grandson of Count Sergius Mucus), imperial patrice and duke, with his son Manso I	958 -	966	
Manso I (r), imperial patrice, 976	966 -	976	
with his son John I	976 -	984	
Prince of Salerno	981 -	983 (Nov.)	
Adelferius, brother of Manso I, usurper, with his son Sergius II	984 -	986 (between and July)	
Manso I (20), with his son John I	986 -	1002	
with his son Jean and his nephews Adelferius, Adenarius and Leo	? -	988	- ?
with his son Jean and grandson			
Sergius III	1002 -	1004	
John I with his son Sergius III	1004 -	1007	

Sergius III	1007 - 1014
with his son John II	1014 - 1028
John II (I), imperial patrice	1028 - 1030
with his son Sergius IV	1030 - 1034
Manso II (IO) with his mother Mary, patrician, regent.....	1034 - end of 1037
Marie, with her son John II and grandson Sergius IV	1037 - 1039

(b) LOMBARDS OF SALERNO

Guaimar V (IV) of Salerno. April 1039 - 1042

(c) AMALFI DYNASTY AGAIN

(under the suzerainty of Salerno until the death of Guaimar V (IV), 1052)

Manso II (20), with his mother Marie	1043 - 1047
with his son Guaimar	1047 - 1052
John II (20), with his son Sergius IV	1052 - 1069
Sergius IV, with his son John III	1069 - 1073

d) AMALFI PASSES TO THE NORMANS OF PUGLIA

In 1096, insurrection against the Normans; Duke Marin
Redfish 1096 - 1100

Again the Normans

x i

DUKES OF NAPLES

(B. CAPASSO, *Monumenta ad Neapolitani ducatus historiam pertinentia...*, II, 2 : Società Napoletana di

Storia patria, Monumenti Storici, Ser. Iia, Documenti, t. II, parte Iia, Napoli, 1892, 257-258.

Mr. S CHIPA, Il ducato di Napoli, *Arch. storico delle Provincie Napoletane*, 17 (1892), 18 (1893), 19 (1894).

F. NICOLINI, art. Napoli, *Enciclopedia italiana*, t. 24 (1934), 233-242)

Basile	Indict. 4 (661/662)	5 years	
Theophylact I.....	6 (666/667)	4	
Cosmas	(670/671) 4	(672/73/6)	
Andrew I	2 _i	5	
Caesarius I	6 (677/678)	7	
Etienne I	12 (684/685)	3	
Bonellus.....	1 (687/688)	9	
Theodosius	9 (695/696)	10	
Caesarius II			
John I	4 ₉ (670/5/706)	8 ₆	
Theodore, consul and duke	2 (718/719)	11	
George I, consul, imperial spathary and duke	13 (729/730)	10	
Gregory I	5 (739/740)	15 years	15 days
Etienne II	8 (754/755)	12	and
Gregory II	5 (766/767)	27 years	6 months
Etienne (1)	2 (793/794)	6 month	
Theophylact II	3 (794/795)	6 years	6 months

(z) Has no order rank among authors.

Antimus, consul and duke	9 (800/801) 17 years and 3 months	Non dukes (after a sedition) : Theoctist, magister militum; Theodore, protospathary
Etienne III	14 (820/821) 10 years and 10 months, killed 16 May 832	
Bonus, consul and duke	10 (831/832) 2 years old. Ends Sept. 834 (Schipa)	
Leo	12 (833/834) 7 years	
Andrew II	13 (834/835) 5 years and 5 months	
Contardus	3 (839/840) 15 days	
Sergius I	3 (839/840) 25 years and 3 months	
Gregory III, colleague of Sergius 850	12 (863/864) 5 years and 7 months	
Sergius III, colleague of Gregory III	3 (869/870) 7 years and 6 months	
months Athanasius, bishop and duke (Athanasius II, bishop of Naples)	1 1 (877/878) 20 years, 3 months, 29 days, died between March and April 898	
Gregory IV	1 (897/898) 16 years, 10 months, 10 days	
John II	3 (914/915) 4 years, 7 months, 12 days	
Marin I	7 (918/919) 8 years, 9 months, 15 days	
John III, imperial anthypatos and patrice I	(927/928) about 42 years	
Marin II	Indict. 968 - 976	
Sergius III	977-998	
John IV	999 - 1003 or 1004	
Sergius IV (10)	1003 or 1004 - 1027	
Paldolf IV (III), Prince of Salerno	1027 - late 1029 or early 1030	
Sergius IV (2°)	late 1029 or early 1030 - late 1033 or early 1034 (retired to S. Salvatore Convent)	
John V	late 1033 or early 1034 - 1050 - before April 1053	
Sergius V	before April 1053 - 1090. Partner: sound nephew Sergius VI, between 1067 and 1075	
Sergius VI, imperial protosebaste between 1090 and 1093	1090 - 1100 - before 1107. Associate: John VI	
John VI	before 1107 - 1120 - ?	
Sergius VII	? - 1123 - 1137 (late October)	
Naples passes to the Normans		

Xii

NORMANS OF ITALY AND SICILY

(F. CHALANDON, *Histoire de la domination normande en Italie et en Sicile*,

Paris, 1907) I. COMTES D'AVERSA ET PRINCES DE CAPOUE

Rainolf I, first Count of Aversa, c. 1030, Duke of Gaeta-Asclettin, nephew of the previous	In. June 1045 ?
Raoul (not Norman), imposed by Guaimar of Salerno, hunted	In. late 1045
Rainolf II, Trincaocte, cousin of Asclettin	1046 - m. c. 1047
Hermann, son of the preceding	c. 1047 - In. c. 1049
Guillaume de Bellebouche, regent.	
Richard I, brother of Asclettin, first regent, then count of Aversa	around 1049
first prince of Capua	June 1058
Duke of Gaeta	April-June 1063 - m. 5 Apr. 1078

Jordan I, son of Richard I, Prince of Capua, associated with his father In	June 1058
reigns alone	Apr. 1078 - m. 20 Nov. 1090
Richard II, son of the above, associated with his father in	Sep. 1080
reigns alone	Nov. 1090 - m. Jan. 1106
Robert I, brother of the above, mentioned in April 1106 as procurator of the principate of Capua, prince of Capua	Apr. 1107 - m. 3 June 1120
Richard III, associated with his father Robert I	27 May 1120 - m. 5 June 1120
Brother of Robert I. Jordan II	1120 June 1120 - m. 19 Dec. 1127
Robert II of Sorrento, son of Jordan II	

2. COUNTS AND DUKES OF APULIA AND CALABRIA

Guillaume I, Bras de Fer, son of Tancred de Hauteville "Count" of Apulia	1043 - m. late 1045 gold early 1046
Dreux (Drogon), another son of Tancred, count, then duke of Puglia	1046 - m. 10 August 1051
Onfroi, another son of Tancred	August 1051 - m. 1057
Robert Guiscard, another son of Tancred, Duke of Apulia and of Calabria	1057 m. June 17. 1085 17 July 1085 - m. 22 Feb. mid Feb. 1111 - m. 20 June.
The duchy passes to the kings of Sicily	

3. KINGS OF SICILY

Roger I, brother of Robert Guiscard, began the conquest of Sicily in 1061; after the capture of Palermo, 1072, he takes the title of Count	- d. June. 1101
Roger II, Count of Sicily	1101 - 1127
Regency of his mother Adelaide	- 1113
Duke of Apulia and Calabria	1127
first King of Sicily	25 Feb. 1130 - m. 26 Feb. 1154
William I, son of Roger II, partner and consecrated on	8 Apr. 1151
Succeeds	26 Feb. 1154 - 111. 7 May '166
William II, son of William I	7 May 1166 - m. 16 Nov. 1189
Regency of Margaret of Navarre	1166 - 1171
Tancred, natural son of Roger, Duke of Apulia	
Earl of Lecce	1149
King of Sicily	Jan. 1190 - m. 20 Feb. 1194
Join forces with his son Roger	July OR August 1192
William III, another son of Tancred	Feb. 20 1194 - m. c. 1198
Regency of Queen Sibille	1194 - Nov. 1194

Xiii

SUCCESSORS OF THE NORMAN KINGS OF SICILY

(E. JORDAN, *Germany and Italy in the twelfth and thirteenth centuries*, Paris 1939E. G. LÉONARD, *the Angevins of Naples*, Paris 1954)

THE HOHENSTAUFEN

Henry I of H. (Henry VI of Germany, Emperor, 14 April 1191) crowned King of Sicily in Palermo Frederick I	25 Dec. 1194 - m. 28 Sep. 1197
(Frederick II of Germany, Emperor 22 Novem- Bre 1220), crowned in Palermo on	17 May 1198 - m. 13 Dec. 1250

Conrad I (Conrad IV, son of the above, emperor), king of Sicily	13 Dec. 1250 - ITI. 21 May 1254
Conrad II, called Conradin, son of the preceding	21 May 1254 - August 1258
Manfred, natural son of Frederick I, Prince of Taranto, 1240, king of Sicily	August 1258 - m. 26 Feb. 1266

The title of King of Sicily passed to the House of Anjou, a branch of Naples, in the person of Charles I, 6 January 1266, but in 1282, on 4 September, Peter III of Aragon was proclaimed King of Sicily in Palermo.

ARAGONESE KINGS OF THE ISLAND

Peter I (Peter III of Aragon), King of Sicily	Sep 4 1282 - d. 10 Nov. 1285
James II of Aragon	10 Nov. 1285 - m. Nov 5 1327
"Give"	Jan. 1296
Frederick II, of Aragon, son of the above	Jan. 15 1296 - m. 25 June 1337
Peter II, son of the preceding, associated with his father on 19 April 1321, him	June 25 1337 -m. 15 1342
Louis, son of the above	15 Sep. 1342 -m. 16 Oct. 1355
Frederick III, Brother of the Above	gold 1,355 M. July 27 1377
Mary, Daughter of Frederick III	Nov. i 1,377 m. May 25 1402
Martin the Younger, husband of Mary, crowned in	1392
alone	May 1402 ^{IV} 1409
"Martin the Old", father of Martin I	July 25 1409 - d. 31 May 1410
Vicariate of Blanche, daughter of Charles III of Navarre, widow of Martin I	May 1410 - m. 30 June 1412
Ferdinand I, son of John of Castile, elected	3 rd June 1412
takes Power	July 28 1412 - m. 2 Apr. 1416
Alfonso I the Magnificent	2 Apr 1416 - d. 27 July 1458

Sicily was then ruled by viceroys.

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KINGS OF SICILY AND NAPLES

(E. G. LÉONARD, *The Angevins of Naples*, Paris,

FIRST HOUSE OF ANJOU

NAPLES BRANCH

Charles I of Anjou, crowned King of Sicily in Rome	6 Jan. 1266 - m. 7 Jan. 1285
Charles II, son of the above, crowned at Rieti	29 May 1289 - 5 May 1309
Robert, son of the above	111. 6 May 1309 20 Jan. 1343

Dislocation of the House of Naples

Jeanne I, granddaughter of Robert, wife of Andrew of Hungary (murdered on the night) of 18-19 September 1345); she dies also murdered on 27 July 1382	1343 - m. 27 July 1382
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BRANCH OF HUNGARY

Louis, son of Carobert of Anjou-Hongrie, King of Hungary	1342
King of Poland	1370
usurp of the Kingdom of Naples	Jan. 1348 - June 1348
Joanna's return to Naples with Louis of Taranto, second Jeanne's Husband	17 August

TARANTOBRANCH

Louis of Taranto, grandson of Charles II, second husband of Joan I, King of Sicily, crowned on	27 May 1352 - m. 24 May 1362
Personal government of Joan I	1362 - 1374
James III of Majorca, third husband of Joan I	14 Dec. 1362 - m. Feb. 1375
Otto of Brunswick, fourth husband of Joan I	25 March 1376 - m. after April 1392

DURASBRANCH

Charles III of Duras, great-grandson of Charles II, King of Sicily crowned one	2 June 1381
took possession of Naples on	July 16 1381 - m. 24 Feb. 1386

SECOND HOUSE OF ANJOU OR VALOIS-PROVENCE

Louis I, Duke of Anjou, then King of Sicily, competitor of Charles III of Duras, took the title of King of Sicily	30 August 1383 - m. 20 Sep. 1384
Louis II, son of the above, King of Sicily	1384 - m. 29 Apr. 1417

DURASBRANCH

Ladislaus, son of Charles III of Duras, in competition with Louis II of Valois-Provence, made his entrance to Naples on	10 juill. 1399 - m. 6 August 1414
Joan II sister of the above, Queen of Sicily	August 1414
crowned one	28 Oct. 1419 - d. 2 Feb. 1435

LES VALOIS-PROVENCE

Louis III, son of Louis II, King of Sicily, in competition with Jeanne II on the death of her father, raises her rights	Apr. 1417 - m. 15 Nov. 1434
René d'Anjou, brother of the above, nominal king	Nov. 1434 - m. 10 Jull. 1480

X V

THE DOGES OF VENICE

(H. KRETSCHMAYR, *Geschichte Von Venedig*, 3 vol., Gotha, 1905-1920-1934 List
corrected and completed by F. Thiriet)

Paoluccio?	697 -	717
Marcello?	717 -	726
Orso	726 -	737

Militia masters appointed by the Emperor of Constantinople

Dominicus Leo	737	
Felix Cornicula	738	
Deusdedit	739	
Jubianus Ypatus	740	
Johannes Fabricius	741	
Diodato Ipato	742 -	755
Oromo Gaulo	755 -	756
Domenico Monegario	756 -	764
Maurizio and Giovanni Galbaio	764 -	804
Obelerio and Beato	804 -	811
Angelo Partecipazio	811	827
Gustiniano Partecipazio	827 -	829
Giovanni Partecipazio (I)	829 -	836
Pietro Tradonico	836 - 15 March	864

Orso Participazio (I).....	864 -	88 r
Giovanni Participazio (II).....	881 -	887
Pietro Candiano (I).....	887	
Pietro (Tribuno) Trasdomenico	888 -	912
Orso Participazio (II) Paureta	912 -	932
Pietro Candiano (II)	932 -	939
Pietro Badoer.....	939 -	942
Pietro Candiano (III).....	942 -	959
Pietro Candiano (IV).....	959 -	976
Pietro Orseolo (I)	12 August 976 -	I seven. 978
Vitale Candiano		979
Tribuno Memmo		(991)
Pietro Orseolo (II)		1008
Ottone Orseolo		1026



Pietro Centranico	1032
Domenico Orseolo	
Domenico Flabianico	1042
Domenico Contarini	(1070)
Domenico Silvo	(1084)
Vital Falier	(1096)

Vital Michiele (I)	1096 -	1111 1420s
	4	
Ordelaaffo Falier	1102 -	1118

11108 Domenico Michiele	1118
Pietro Polani	1156 - 28 May 1172
Vital Michiele (II)	29 Sep. 1172 - April 13, 1178
Sebastiano Ziani	17 April 1178 - 14 June 1192
Orio Malipiero	21 June 1192 - 14 June 1205
Enrico Dandolo	5 August 1205 - March 1229
Pietro Ziani	6 March 1229 - 7 June 1249
Jacopo Tiepolo	13 June 1249 - I Jan. 1253
Marino Morosini	25 Jan. 1253 - 7 July 1268
Ranieri Zeno	15 July 1268 - 15 August 1275
Lorenzo Tiepolo	6 Sep. 1275 - March 6, 1280
Jacopo Contarini	25 March 1280 - 2/10V. 1289
Giovanni Dandolo	25 Nov. 1289 - 13 August 1311
Pietro Gradenigo	23 August 1311 - 3 July 1312
Marino Zorzi	13 July 1312 - 31 Dec. 1328
Giovanni Soranzo	4 Jan. 1329 - 31 Oct. 1339
Francesco Dandolo	7 Nov. 1339 - 28 Dec. 1342
Bartolomeo Gradenigo	4 Jan. 1343 - 7 Sept. 1354
Andrea Dandolo	11 Sep 1354 - 17 Apr. 1355
Marino Falier	21 Apr. 1355 - 8 August 1356
Giovanni Gradenigo	13 August 1356 - 12 July 1361
Giovanni Dolfin	16 July 1361 - 18 July 1365
Lorenzo Celsi	21 j1111. 1365 - 13 Jan. 1368
Marco Corner	20 Jan. 1368 - 5 June 1382
Andrea Contarini	10 June 1382 - 15 Oct. 1382
Michele Morosini	21 Oct. 1382 - 23 Nov. 1400s
Antonio Venier	1 Dec. 1400 - 25 Dec. 1413
Michele steno	7 Jan. 1414 - 4 Apr. 1423
Tommaso Mocenigo	15 Apr. 1423 - 23 Oct. 1457
Francesco Foscari	30 Oct. 1457 - 5 May 1462
stepQuale Malipiero	12 May 1462 - 9 Nov 1471
Cristoforo Moro	23 Nov 1471 - 28 July 1473
Nicolò Tron	13 August 1473 - 1 Dec. 1474
Nicolò Marcello	14 Dec. 1474 - 23 Feb. 1476
Pietro Mocenigo	5 March 1476 - 6 May 1478
Andrea Vendramin	18 May 1478 - 4 Nov 1485
Giovanni Mocenigo	19 Nov. 1485 - 14 August 1486
Marco Barbarigo	30 August 1486 - 20 Sep. 1501
Agostino Barbarigo	2 Nov 1501 - 22 June 1521
leonardo Loredan	

HISTORICAL LISTS

(continued)

(F) ECCLESIASTICAL LISTS

- I. — The Popes.
- II. — Patriarchs of Constantinople.
- III. — Latin Patriarchs of Constantinople.
- IV. — Patriarchs of Alexandria.
- V. — Patriarchs of Antioch.
- VI. — Patriarchs of Jerusalem.
- VII.— Latin Patriarchs of Jerusalem.
- . VIII. — Main councils of interest to Byzantine history.

I

THE POPES

(List of the *Annuario Pontificia* 1954, Città del Vaticano, by A. MERCATI;
L. DUCHESNE, *Le Liber Pontificalis*, Paris, 1886, 1892 : pour les huit premiers siècles)

N.B.: When the advent is marked by two dates, the first designates the election, the second the consecration.

S. Gaius or Gaius	17 December 283-22 April 296
S. Marcellin	30 June 296-25 October 304.
S. Marcel I.	27 May or 26 June 308-16 January 309
S. Eusebius	18 April 309 or 310-17 August 309 or 310
S. Miltiade or Melchiade	2 July 31 D-1 I January 314
S. Silvestre I.	31 January 314-31 December 335
S. Mark	18 January 336-7 October 336
S. Jules	6 February 337-12 April 352
Release	17 May 352-24 September 366
(Felix II)	• 355-22 November 365) (1)
Damasus I.	1 October 366-11 December 384
(Ursin	366-367)
s. Sirice	15 or 22 or 29 December 384-26 November 399
Anastasius I.	27 November 399-19 December 401
S. Innocent I.	22 December 401-12 March 417
S. Zosimus	18 March 417-26 December 418
S. Boniface I.	28 or 29 December 418-4 September 422
S. (Eulalius	27 or 29 December 418-419)
S. Celestine I	10 September 422-July 27, 432
Sixtus III	31 July 432-19 August 440
S. Leo I, the Great	29 September 440-10 November 461
S. Hilaire	19 November 461-29 February 468
S. Simplicie	3 March 468-10 March 483
S. Felix III (II)	13 March 483-rer March 492
S. Gelasius I	March 492-21 November 496
S. Anastasius II.	24 November 496-19 November 498
S. S. Symmachus	22 November 498-19 July 514
(Lawrence	498, 501-505)
S. Hormisdas	20 July 514-6 August 523
S. John I.	13 August 523-18 May 526
S. Felix IV (III)	12 July 526-22 September 530
Boniface II.	22 September 530 -17 October 532
(Dioscore	22 September 530-14 October 530)
John II	2 January 533-8 May 535
S. Agapet I.	13 May 535-22 April 536
S. Silvere	ier or 8 June 536-11 November 537
Vigil	29 March 537-7 June 555
Pelagius I.	16 April 556-4 March 561
John III	17 July 561-13 July 574

(1) This character is a Roman martyr who was later mistaken for a pope and who entered the series by mistake. For the following popes named Felix, their true historical rank has been put in brackets.

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HISTORICAL LISTS: ECCLESIASTICAL LISTS

Benedict I.....	2 June 575-30 July 579
Pelagius II.....	26 November 579-7 February 590
S. Gregory I, the Great.....	3 September 590-12 March 604
Sabinian.....	13 September 604-22 February 606
Boniface III.....	19 February 607-12 November 607
S. Boniface IV.....	25 August 608-8 May 615
S. Deusdedit or Adéodat I.....	19 October 615-8 November 618
Boniface V.....	23 December 619-25 October 625
Honorius I.....	27 October 625-12 October 638
Séverin.....	28 May 640-2 August 640
John IV.....	24 December 640-12 October 642
Theodore I.....	24 November 642-14 May 649
S. Martin I.....	July 649-16 September 655
S. Eugene I.....	10 August 654-2 June 657
S. Vitalien.....	30 July 657-27 January 672
Adéodat II.....	11 April 672-17 June 676
Donus.....	2 November 676-11 April 678
S. Agathon.....	27 June 678-10 January 681
S. Leo II.....	17 August 682-3 July 683
S. Benedict II.....	26 June 684-8 May 685
John V.....	23 July 685-2 August 686
Conon.....	21 October 686-21 September 687
(Theodore.....)	(687)
(Pascal.....)	(687)
S. Sergius I.....	15 December 687-8 September 701
John VI.....	30 October 701-II January 705
John VII.....	1 March 705-18 October 707
Sisinnius.....	15 January 708-4 February 708
Constantine.....	25 March 708-9 April 715
S. Gregory II.....	19 May 715-II February 731
S. Gregory III.....	18 March 731-... November 741
S.....	Zechariah 10 December 741-22 March 752
(Etienne II.....)	(23 March 752-25 March 752)
Etienne III (II).....	26 March 752-26 April 757
S. Paul I.....	April-29 May 757-28 June 767
(Constantine.....)	(28 June, 5 July 767-769)
(Philippe.....)	(31 July 768)
Etienne IV.....	I ^{er} , 7 August 768-24 January 772
Adrian I.....	I ^{er} , 9 February 772-25 December 795
S. Leo III.....	26, 27 December 795-12 June 816
Etienne V.....	22 June 816-24 January 817
S. Pascal I.....	25 January 817-II February 824
Eugene II.....	February-May 824-... August 827
Valentin.....	August 827-... September 827
Gregory IV.....	827-... January 844
(John.....)	(January 844)
Sergius II.....	January 844-27 January 847
S. Leo IV.....	January, 10 April 847-17 July 855
Benedict III.....	July, 29 September 855-17 April 858
(Anastasius.....)	(August 855-... September 855, 1 ^{er} C. 880)
S. Nicholas I.....	24 April 858-13 November 867
Adrian II.....	14 December 867-14 December 872
John VIII.....	14 December 872-16 December 882
Marin I.....	16 December 882-15 May 884
His.....	17 May 884-... September 885
Etienne VI.....	September 885-14 September 891
Formosa.....	6 October 891-4 April 896
Boniface VI.....	April 896-... April 896
Etienne VII.....	May 896-... August 897
Roman.....	August 897-... November 897
Theodore II.....	December 897-... December 897
John IX.....	January 898-... January 900
Benedict IV.....	January-February 900-... July 903

Leo V	July 903-... July 903
(Christopher..... July or September	903-... January 904)
Sergius III.....	29 January 904-14 April 911
Anastasius III	April 911-... June 913
Landon	July 913-... February 914
John X	March 914-... May 928
Leo VI.....	may 928-... December 928
Etienne VIII	December 928-... February 931
John XI	Feb:a -March 931-... December 935
Leo VII.....	3 January 936-13 July 939
Etienne IX	14 July 939-... October 942
Marin II	30 October 942-... May 946
Agapetus II.....	Io May 946-... December 955
John XII.....	16 December 955-14 May 964
Leo VIII.....	4, 6 December 963-ter March 965
Benedict V.....	22 May 964-4 July 966
John XIII	1'9' October 965-6 September 972
Benedict VI.....	19 January 973-... June 974
(Boniface VII	June-... July 974; then ... August 984-... July 985)
Benedict VII.....	October 974-10 July 983
John XIV	December 983-20 August 984
John XV	August 985-... March 996
Gregory V	3 May 996-18 February 999
(John XVI	April 997-... February 998)
Silvestre II.....	2 April 999-12 May 1003
John XVII.....	June 1003-... December 1003
John XVIII	January 1004-... July 1009
Sergius IV	31 July 1009-12 May 1012
Benedict VIII.....	18 May 1012-9 April 1024
(Gregory	1012)
John XIX	April-May 1024-... 1032
Benedict IX	1032-... 1044
Silvestre III.....	20 January 1045-10 March 1045
Benedict IX (for the secondf ois)	Io April 1045-1 st May 1045
Gregory VI	5 May 1045-20 December 1046
Clement II	24, 25 December 1046-9 October 1047
Benedict IX	(for the third time), 8 November 1047-17 July 1048
Damasus II	17 July 1048-9 August 1048
S. Leo IX.....	12 February 1049-19 April 1054
Victor II.....	16 April 1055-28 July 1057
Etienne X.....	3 August 1057-29 March 1058
(Benedict X	5 April 1058-24 January 1059, t ... ?)
Nicholas II.....	24 January 1059-27 July 1061
Alexander II	I October 1061-21 April 1073
(Honorius II.....	28 October io61-... 1072)
S. Gregory VII.....	22 April, 3o June 1073-25 May 1085
(Clement III.....	25 June 1080, 24 March 1084-8 September 1 ioo)
Victor III	24 May 1086-16 September 1087
B. Urban II	12 March 1088-29 July 1099
Paschal II	13, 14 August 1099-21 January 1118
(Theodoric	1100, t I 102)
(Albert	1102)
(Silvestre IV	i8 November II05-... II11)
Gelasius II	24 January, Io March 1118-28 January II19
(Gregory VIII	8 March II18-... II21, t ... ?)
Calixtus II.....	2, 9 February 1119-13 December 1124
Honorius II	15, 21 December 1124 - 13 February 1130
(Celestine II	December 1124)
Innocent II, 14.....	23 February 1130-24 Sept1143
(Anaclet II	14, 23 February 1130-25 January 1138)
(Victor IV	March 1138-29 May 1138, t ... ?)
Celestine II	26 September, 3 October 1143-8 March 1144

Lucius II.....	12 March 1144-15 February 1145
B. Eugene III.....	15, 18 February 1145-8 July 1153
Anastasius IV.....	12 July 1153-3 December 1154
Adrian IV.....	4, 5 December 1154— ¹ September 1159
Alexander III.....	7, 20 September 1159-30 August 1181
(Victor IV.....	7 September, 4 October 1159 – 20 April 1164)
(Paschal III.....	22, 26 April 1164-20 September 1168)
(Calixtus III.....	September 1168-29 August 1178)
(Innocent III.....	29 September 1179-... 1180)
Lucius III.....	I, 6 September 1181-25 September 1185
Urban III.....	25 November, 1 st December 1185-20 October 1187
Gregory VIII.....	21, 25 October 1187-17 December 1187
Clement III.....	19, 20 December 1187-... March 1191
Celestine III.....	March 30, April 14, 1191-January 8 1198
Innocent III.....	8 January, 22 February 1198-16 July 1216
Honorius III.....	18, 24 July 1216-18 March 1227
Gregory IX.....	19, 21 March 1227-22 1241
Celestine IV.....	August 1241
.....	25, 28 October 1241-10 November 1254
Innocent IV.....	25, 28 June 1243-7 December 1261
Alexander IV.....	12, 20 December 1254-25 May 1264
Urban IV.....	29 August, 4 September 1261-2 October 1268
Clement IV.....	5, 15 February 1265-29 November 1276
B. Grégoire X.....	1 September 1271, 27 March 1272-10 January 1276
B. Innocent V.....	21 January, 22 February 1276-22 June 1276
Adrian V.....	II July 1276-18 August 1277
John XXI.....	8, 20 September 1276-20 May 1280
Nicholas III.....	25 November, 26 December 1277-22 August 1285
Martin IV.....	22 February, 23 March 1281-28 March 1287
Honorius IV.....	2 April, 20 May 1285-3 April 1292
Nicholas IV.....	22 February 1288-4 April 1296
S. Célestin V.....	5 July, 29 August 1294-13 December 1294, t 19 1303
May.....	1304
Boniface VIII.....	24 December 1294, 23 January 1295-II October 1314
Benedict XI.....	22, 27 October 1303-7 July 1334
Clement V.....	5 June, 14 November 1305-20 April
John XXII.....	7 August, 5 September 1316-4 December
(Nicholas V.....	12, 22 May 1328-25 August 1330, t 16 October 1333•)
Benedict XII.....	20 December 1334, 8 January 1335-25 April 1342
Clement VI.....	7, 19 May 1342-6 December 1352
Innocent VI.....	18, 30 December 1352-12 September 1362
B. Urbain V.....	28 September, 6 November 1362-19 December 1370
Gregory XI.....	30 December 1370, 5 January 1371-26 March 1378
Urban VI.....	8, 18 April 1378-15 October 1389
Boniface IX.....	2, 9 November 1389— ¹ er October 1404
Innocent VII.....	17 October, II November 1404-6 November 1406
Gregory XII.....	30 November, 19 December 1406-4 July 1415
(Clement VII.....	20 September, 31 October 1378-16 September 1394)
(Benedict XIII.....	28 September, 11 October 1394-23 May 1423)
(Alexander V.....	26 June, 7 July 1409-3 May 1410)
(John XXIII.....	17, 25 May 1410-29 May 1415)
Martin V.....	II, 21 November 1417-20 February 1431
Eugene IV.....	3, 11 March 1431-23 February 1447
(Felix V.....	5 November 1439, 24 July 1440-7 April 1449•)
Nicholas V.....	6, 19 March 1447-24 March 1455
Calixtus III.....	8, 20 April 1455-6 August 1458
Pius II.....	19 August, 3 September 1458-15 August 1464
Paul II.....	30 August, 16 September 1464-26 July 1471
Sixtus IV.....	9, 25 August 1471-12 August 1484
Innocent VIII.....	29 August, 12 September 1484-25 July 1492
Alexander VI.....	11, 26 August 1492-18 August 1503

Ii

PATRIARCHS OF CONSTANTINOPLE

LE QUIEN, *Oriens Christianus* t. I, Paris, 1740; M. GÉDÉON, II v.

Constantinople, 1890; I. ANDREEV, *Konstantinopolskie patriarchi*, fasc. I, Sergiev Posad, 1895 (up to John IV) (1); S. VAILHÉ, art. Constantinople, *DT C, III*, 1308-1313. This last work, although the author could not reach Andreev's work, marked a very significant progress on previous works. Since then, various works have appeared over limited periods. We used the notes of E. STEIN, *History of the Lower Empire*, t. II, Paris (*passim*) (until the death of Justinian). Of particular note: from 996 to 1111, V. LAURENT, *EO*, 35, 1936, 67-81; from 1294 to 1350, the same, *REB*, 7, 1949, 147-155; in addition, note of the same, on patriarch Nile, *EO*, 36, 1937, 171-174; from 815 to 843, V. GRUMEL, *EO*, 34, 1935, 162-166, 506; from mid to 1206, the same, *REB*, I, 1943, 250-270. The *Regestes of the Acts of the Patriarchs* (381-1206) took account of this work. We record here the results by providing here and there some details. For the period from 1206 to 1453, the chronology of S. Vailhé has been improved on particular points thanks to books or notes published since then. In addition to the article already mentioned by V. Laurent for the patriarchs from 1294 to 1350 and his note on Nile, the collection of notes 'EV01416ECJV IrCrit Zp0Vt>t<7 was used.)/ ri·V.Z.1.6)V.4t7.WV (3/J?,X0^1/) -rcpc:yrr. *Neos Hellènomnêmôn*, 7, 1910, 113-313; A. HEISENBERG, *Neue Quellen zur Geschichte des lateinischen Kaisertums*, II and III, 1923; I. SYKOUTRÈS, 'Enz-

Drank. E1TOUU)V, 9, 1932, 178-189 (on the election of Germain III); G. MERCATI, *Notizie di Procoro e Demetrio Cidone ed altri appunti*, Città del Vaticano, 1931; and finally the Bpcc-zx ypovtxc. of

Sp. LAMPROS in . N1v-resioc 7:7;ç

gathered the notes concerning the patriarchs in

;. (37opicxq, Athens, 1932-1933 (K. I. DYOBOUNIOTÈS a 'E:-octp. Drank. Enoei;iv, II, 1935, 4-6).

For the period following the capture of Constantinople by the Turks, we have kept to the remarkable study of GERMAIN of Sardis, Evu.6oX rçs Toûç 7T,Ctipt.CCpZUXOÛÇ

Kwvo-T.Y.v-:tvoiyirr')Xso)r,Ti; Ct2,c',xszei)(. y.oci V4=? ag, published in 'Op0rA'7«iy., t. 8-13, from 1933 to 1938

(with the exception of the patriarchate of Marc Xylocaravi and his successor, the author having not known the

Bishops

Philadelphus.....	between 211 and 217
Eugene I.....	240-265
Rufin.....	284-293
Metrophane.....	30 ⁶ /307-4 June 314
Alexander.....	314-Aug 337
Paul I (1 ³).....	337-339
Eusebius.....	339-end 341

(r)_{the}2nd fasc. did not appear, but only a study on the two patriarchs Germain and Taraise: *German i Tarasij, patriarchi Konstantinopor skie*, Sergier Posad, 1907 (taken apart from articles of the *Bogoslovskij V estnik*, 1897 and 1899).

Paul I (2°)	late 34i-early 342
Macedonia i (r)	early 342-early 346
Paul I (3°)	early 346-late 351
Macedonian I (2°)	late 351-27 January 360
Eudoxus of Antioch.....	27 January 360-early 370
Demiophile	early 370-26 November 380
Evagre.....	37o
Gregory of Nazianze	379-June 381
Maxim	38o

Patriarchs

Nectaire	June 381-27 September 397
John I Chrysostom.....	26 February 398-2o June 404 (exiled)
Arsaces	27 June 404-11 November 405
Atticus	early March 406-10 October 425
Sisinnius I	28 February 426-24 December 427
Nestorius.....	1o April 428-July 11, 431
Maximian.....	25 October 431-12 April 434
Proclus.....	12 or 13 April 434-12 July 446
Flavian.....	July 446-August 11, 449
Anatole	November 449-3 July 458
Gennade I	August or September 458-2o November 471
Acace.....	February 472-26 November 489
Fravitas	December 489-March 490
Euphemius.....	spring 490-spring 496 (exiled)
Macedonius II	July 496-11 August 5 ri (exiled)
Timothy I	October 511-5 April 518
John II Cappadokes	17 April 518-February 520
Epiphany.....	25 February 52o-5 June 535
Anthime I.....	June 535-March (before 13) 536 (deposited)
March	13, 536-Aug 24 552
Eutychius (1°)	late August 552-31 January 565 (deposited)
John III Scholasticos	31 January 565-31 August 577
Eutychius (2°)	3 October 577-5/6 April 582
John IV the Faster.....	12 April 582-2 September 595
Cyriace	late 595 or early 596-29 October 606
Thomas I.....	23 January 607-20 March 610
Sergius I.....	18 April 610-8 or 9 December 638
Pyrrhus (1°)	December 638-September 641
Paul II	October 641-December 653
Pyrrhus (2°)	8 or 9 January 654-1" June 654
Peter.....	June 654-otober666
Thomas II	17 April 667-15 November 669
John V	November 669-August 675
Constantine I.....	2 September 675-9 August 677
Theodore I (r)	August/September 677-November/December 679
George I.....	November/December 679-January/February 686
Theodore I (2°)	January/February 686-28 December 687
Paul III.....	January 688-2o August 694
Callinic I.....	September 694-spring 706
Cyrus	spring 706-early 712
John VI.....	early 7,2-July or early August 715
Germain I	II August 715-17 January 730
Anastasius.....	22 January 730-January 754
Constantine II	8 August 754-3o August 766
Niketas I	16 November 766-6 February 780
Paul IV.....	20 February 780-31 August 784
Taraise	25 December 784-18 February 806
Nikephoros I.....	12 April 806-13 March 815 (exiled)
Theodotus Melissène Cassiteras	from April 815 to January 821
Antony I Cassimatas	c. 821-January 837 (before the 21st)

John VII Morocharzianos Grammaticos	21 January 837-4 March 843
Method I	elected on March 4, 843, ordained on March 843-June 14, 847
Ignatius (i ⁰)	3 July 847-23 October 858 (dispossessed)
Photius (i ^o)	appointed November/December, ordained December 25, 858-September 23, 867
Ignatius (2 ^o)	23 November 867-23 October 877
Photius (2 ^o)	26 October 877-29 or 30 September 886
Etienne I	18 December 886-17 or 18 May 893
Antony II Cauleas	August 893-12 February 901
Nicholas I Mysticos (1 ["])	1 March 901-February 907 (exiled)
Euthym I	February 907-15 May 912
Nicholas I Mysticos (2 ^o)	15 May 912-15 May 925
Etienne II	29 June 925-18 July 927
Tryphon	14 December 927-Aug 931
Theophylact	2 Feb 933-27 February 956
Polyeucte	3 April 956-5 February 970
Basil I Scamandrénos	13 February 970-974 (probably March)
Antony III Studite	after March 974-before April 979
Nicholas II Chrysoberges	April 979-December 16, 991
<i>Vacancy: 4 years and half (I).</i>	
Sisinnios II	12 April 996-24 August 998
Sergius II	June/July 1001-July 1019
Eustathe	July '09-November/December (before 15) 1025
Alexios Studite	15 December 1025-20 February 1043
Michael I Cerular	25 March 1043-2 November 1058 (exiled), died 21 January 1059
Constantine III Lichoudès	2 February 1059-9/10 August 1063
John VIII Xiphilin	1 ^{January} 1064-2 August 1075
Cosmas I	shortly after 2 August 1075-8 May 1081 (abdication)
Eustrates Garidas	May 1081-July 1084 (abdication)
Nicholas III Kyrdiniates Grammaticos	August 1084-before May 24 a
John IX Agapetos	24 May 1084-end of April 1134
Leo Stypès or Stypotes	May 1134-January 1143
Michael II Courcouas the Oxite	July 1143-March 1146
Cosmas II Atticus	late April 1146-26 February 1147 (deposed)
Nicholas IV Muzalon	December 1147-March/April 1151 (abdication)
Theodotus II ..	between March/April 1151 and April 1152-between October 1153 and October 1154 (two years and 6 months)
Neophyte I	between October 1153 and the end of November 1154 (less of one month), elected, not ordered
Constantine IV Chliarénos	November 1154-end of May 1157
Luc Chrysobergès	August/October 1157-November (after '9)/January 1170
Michael III of Anchialos	January (before the 3rd) 1170-March 1178
Chariton Eugeniotès	between March and August 1178-between February and 30 July 1179 (II months)
Theodosius the Boradiote	between February and 30 July 1179-August 1183
Basil II Kamatoos	August 1183-February 1186
Niketas II Mountanes	February 1186-February 1189
Dosithee of Jerusalem (i ^o)	February 1189 (9 days)
Leontce the Theotokite	February/March 1189-September or early of October 1189
Dosithee of Jerusalem (2 ^o)	late September or early October 1189- 10 September 1191
George II Xiphilin	10 September 1191-July 7, 1198
John X Kamateros	5 August 1198-April/May 1206
Michael IV Autorianos	20 March 1208-26 August 1214

(i) Note however the article by H. GRÉGOIRE and P. ORGELS, I, a chronology of the Patriarchs of Constantinople and the Roman question at the end of the tenth century, *Byz.*, 24, 1954, Brussels, 1953, 257-278, which tends to place this vacancy before the patriarchy of Nicolas II Chrysobergès.

Theodore II Eirenikos	28 September 1214-31 January	
Maximus II	3 June-December	1216
Manuā I Sarantenos	January 1217-May/June	1222
Germain II	29 or 30 June	1222-1240
Method	1240 (3 months)	
Handbook II	1244-shortly before 3 November	1254
Arsene Autorianos (I ⁿ)		1255-1259
Nikephoros II	before 1 January	1260-end 1260 (less than a year)
Arsene Autoreianos (2. ⁿ)	August 1261	1265
Germain III	25 May 1265-14	1266
Joseph I (i ^o)	September 28	1275
John XI Bekkos	December 1266-May	1282
Joseph I (2 ^o)	26 May 1275-26 December	1283
Gregory III Kyprios	31 December 1282-28	1289
Athanasius I (r)	14 October 1289-16 October	1293
John XII Kosmas	1 January 1294-21 June	1303
Athanasius I (2 ^o)	23 June 1303-September	1309
Niphon I	9 May 1310-11 April 1314. cf. <i>REB</i> , 13, 1955, 138-139	
John XIII Glykys	12 May 1315-11 May	1319
Gerasime I	21 March 1320-20 April	1321
Isaiah	II November 1323-13 May	1332
John XIV Kalekas	February 1334-February 2,	1347
Isidore I	17 May 1347-February/March	1350
Calliste I (1 ^o)	10 June 1350-November	1353
Philotheus Kokkinos (i)	November 1353-22 November	1354, deposited January 1355
Calliste I (2 ^o)	January 1355-August	1363
Philotheus Kokkinos (2 ^o)	8 October 1364-1376	
Macarius (1 ^o)		1376-1379
Nile	late 1379-1 February	1388
Antony IV (1 ^o)	12 January 1389-August	1390
Macarius (2 ^o)	August 1390-1391	
Antony IV (2 ^o)	March 1391-May	1397
Calliste II Xanthopoulos	17 May 1397 (3 months)	
Matthew I	November 1397-August	1410
Euthymus II	25/26 October 1410-29 March	1416
Joseph II	21 May 1416-10 June	1439
Metrophanes II	4 or 5 May 1440-1 August	1443
Gregory III Mammè	1443-t 1459 (left Constantinople in 1450)	
Gennade II Scholarios (I ⁿ)	6 January 1454-6 January	1456
Isidore II	1456 (before May)-spring	1462
Gennade II Scholarios	probably summer 1462-summer	1463
Sophrone I	probably August 1463-early August	1464
Gennade II Scholarios (3 ^o)	August 1464-146	
Joasaph I	July 1465-1466	
Mark II Xylokaravi	mid-1466-1467	
Symeon I of Trebizond (1 0) . . .		Bel 46
Denys I (r)		Ch 46
Symeon I of Trebizond (2 ^o)		1467
Raphael I	early 1475-early	1476
Maximus III	Spring 1476-late 1481 or early	1482
Symeon I of Trebizond (3 ^o)	early 1482-autumn	1486
Niphon II (1 ^o)	towards the end of 1486-1488	
Dionysius I (2 ^o)	July 1488-end	1490
Maximus IV	early 1491-early	1497
Niphon II (2 ^o)	summer 1497-probably towards the end of summer	1498
Joachim I (i ^o)	p.-ê. autumn 1498-probably spring	1502
Niphon II (3 ^o) Spring		1502
Pachome I (1 ^o)	early 1503-early	1504
Joachim I (2 ^o)	early 1504-autumn	1504
Pachome I (2 ^o)	autumn 1504-probably comrs.	1513

Theoleptus I	mid 1513-autumn 1522
Jeremiah I	31 December 1522-end 1545
Joannice I	probably spring 1526: illegitimate patriarchy during the absence of Jeremiah I
Dionysius II	17 April 1546-after August 1554
Joasaph II	after August 1554-January 1565
Metrophane III (r ⁰)	during or immediately after January 1565-4 May 1572
Jeremiah II (Io)	5 May 1572-29 November 1579
Metrophanes III (2°)	29 November 1579-9 August 1580
Jeremiah II (2°)	August '580-probably towards the end of February or early March 1584
Pashomial II	22 February 1584-February 1585: illegitimate patriarchy
Theoleptus II	elected 27 February, enthroned 10 March 1585- after April 'May 1586
Jeremiah II (3°)	early/middle 1587-late 1595
Mathieu II (in)	early February 1596 (2nd days)
Gabriel I. ..	probably in March 1596-probably towards the end of August 1596
Theophanes I Karykes	late February 1597-26 March 1597
Meletios I Pigas	27 March/2 April 1597-March/April 1598. Patriarch of Alexandria, called to the provisional direction of the Church of Constantinople
Matthew II (20)	April 1598-December 1601 or January/February 1602
Neophyte II (Io)	early February 1602-c. mid-January 1603
Mathieu II (3°)	January/February 1603 (a few days)
Raphael II	February 1603-1/15 October 1607
Neophyte II (2°)	15 October 1607-October 1612
Cyrille I (i°)	around October 1612 (about a month). Patriarch of Alexandria called to the provisional direction of the Church of Constantinople. This is what his first patriarchate in Constantinople consists of
Timothy II	late October/early November 1612-3 September 1620
Cyril I (2°)	4 November 1620-12 April 1623
Gregory IV	12 April 1623-18 June 1623
Anthime II	18 June 1623-22 September 1623
Cyril I (3°)	22 September 1623-4 October 1633
Cyril II (r ⁰)	4 October 1633-11 October 1633
Cyril I (4°) ii	October 1633-25 February 1634
Athanasius III (i°)	25 February 1634-5 April 1634
Cyril I (50)	early April 1634-1/10 March 1635
Cyril II (20)	1/10 March 1635-c. mid-June 1636
Neophyte III	mid-June 1636-probably around 5 March 1637
Cyril I (6°)	probably around 5 March 1637-20 June 1638
Cyril II (3°)	20 June 1638-end of June 1639
Parthenios	1 July 1639-before 8 September 1644
Parthenios II (i°)	8 September 1644-16 November 1646
Joannice II (r ⁰)	16 November 1646-29 October 1648
Parthenios II (2°)	29 October 1648-16 May 1651
Joannice II (2°)	early June 1651-mid-June 1652
Cyril III (i°)	mid-June 1652 (8 days)
Athanasius III (2°)	3rd decade of June 1652 (15 days)
Paisios I (i°)	elected July, enthroned 1eT August 1652-early April 1653
Joannice II (3°)	First decade of April 1653-beginning of March 1654
Cyril III (2°)	early March 1654 (14 days)
Paisios I (2°)	around mid-March 1654-March 1655
Joannice II (4°)	March 1655-after mid-July 1656
Parthenios III	26 July 1656-24 March 1657
Gabriel II	23 April 1657 (8 days)
Parthenios IV (i°)	on May 1657-towards the end of June 1662
Dionysius III	29 June 1662-21 October 1665
Parthenios IV (2°)	21 October 1665-9 September 1667
Clement	9 September 1667, not recognized
Method III	5 January 1668-early March 1671

Parthenios IV (3°)	early March 1671-7 September 1671
Denys IV (i°)	8 November 1671-in fact 25 July 1673; in law until August 14
Gerasime II	14 August 1673-December 1674
Parthenius IV (4°)	Te ^r January 1675-probably 29 July 1676
Denys IV (2°)	29 July 1676-in fact 29 July 1679; in law until 2 August 1679
Athanasius IV	30 July-Io August 1679 (12 days)
Jacques (i°)	Io August 1679-30 July 1682
Denys IV (3°)	30 July 1682-10 March 1684
Parthenius IV (5°)	Io March 1684-20 March 1685
James (2°)	20 March 1685-towards the end of March 1686
Denys IV (4°)	towards the end of March 1686-12 October 1687
James (3°)	12 October 1687-3 March 1688
Callinique II (1°)	3 March 1688-27 November 1688
Neophyte IV	27 November 1688-7 March 1689
Callinic II (2°)	7 March 1689-July/August 1693
Denys IV (5°)	August 1693-April 1694
Callinique II (3°)	April 1694-8 August 1702
Gabriel IV	mid-August 1702-17 October 1707
Neophyte V	around October 20, 1707, did not take possession
Cyprian I (r°)	probably around 25 October 1707-c end of May 1709
Athanasius V	probably towards the end of May 1709-beginning December 1711
Cyril IV	early December 1711-early November 1713
Cyprian I (2°)	early November 1713-28 February 1714
Cosmas III	28 February 1714-23 March 1716
Jeremiah III (Io)	vesr 23/25 March 1716-20 November 1726
Paisios II (I°)	20 November 1726-mid-September 1732
Jeremiah III (2°)	15 September 1732-after mid-March 1733
Séraphim I	after mid-March 1733-end of September 1734
Neophyte VI (1°)	27 September 1734-August 1740
Paisios II (2°)	August 1740-after mid-May 1743
Neophyte VI (2°)	after mid-May 1743-March 1744
Paisios II (3°)	March 1744-28 September 1748
Cyril V (1°)	28 September 1748-end of May 1751
Paisios II (4°)	late May/early June 1751-early September 1752
Cyril V (2°)	early September 1752-16 January 1757
Callinique III	16 January 1757-22 or 24 July 1757
Séraphim II	22 July 1757-26 March 1761
Joannice II	26 March 1761-21 May 1763
Samuel I (1°)	24 May 1763-5 November 1768
Meletios II	5 November 1768-probably II April 1769
Theodosius	II April 1769-probably November 16, 1773
Samuel I (2°)	17 November 1773-24 December 1774
Sophrone II	24 December 1774-8 October 1780
Gabriel IV	8 October 1780-29 June 1785
Procopius I	29/30 June or I ^{er} July 1785-30 April 1789
Neophyte VII (i°)	I ^{er} May 1789-I March 1794
Gerasime III	3 March 1794-19 April 1797
Gregory V (i°)	19 April 1797-18 December 1798
Neophyte VII (2°)	19 December 1798-17 June 1801
Callinique IV (1°)	17 June 1801-22 September 1806
Gregory V (2°)	23 September 1806-10 September 1808
Callinique IV (2°)	Io septembre 1808-23 April 1809
Jeremiah IV	23 April 1809-4 March 1813
Cyril VI	4 March 1813-3 December 1818
Gregory V (3°)	14 December 1818-10 April 1821
Eugene II	Io April 1821-27 July 1822
Anthime III	28 July 1822-9 July 1824
Chrysanthé I	9 July 1824-26 September 1826

Agathange I	26 September 1826-5 July 1830
Constantine I	6 July 1830-18 August 1834
Constantine II	18 August 1834-26 September 1835
Gregory VI (r)	27 September 1835-20 February 1840
Anthime IV (r)	20 February 1840-6 May 1841
Anthime V	6 May 1841-12 June 1842

Iii

LATIN PATRIARCHS OF CONSTANTINOPLE (1204–1261)

(Leo SANTIFALLER, *Beitriige zur Geschichte des lateinischen Patriarchates von Konstantinopel, 1201-1'2G I* Weimar, 1938)

Thomas Morosini elected in the second half of 1204
recommended on 21 January 1205
consecrated 27 March 1205-June/July 1211

Vacant: 1211-1215.

Gervais November (between 12 and 30) 1215-8 November 1219

Vacant: November 1219-January 1221.

Matthew January 1221-November/December 1226

John Halgrin appointed 23 December 1226, but declined the charge.

Simon second semester 1227-first semester 1233

Vacant: 1233-1234.

Nicolas de Castro Arquato..... in the middle of 1234-around the
mid-summer 1251

Vacant: 1251-1253.

Pantaleon Giustiniani 15 February 1253-1261 (died 1286)

TITULAR PATRIARCHS (1261–1503)

(L. DE MAS-LATRIE, *Latin Patriarchs of Constantinople, ROL*, III, 433-456

C. EUBEL, *Hierarchia catholica medii aevi*, t. I, Monasterii, 1898, 213-215; II, *ibid.*, 1901, 150) **Annuaire**

pontifical catholique, 20e **année** — 1917, Paris, 1917

[collaboration pour l'Orient de L. Petit], p. 175-177

Pantaleon Giustiniani 1261–1286

Pierre Correr 23 August 1286-1302

Leonardo Faliero 7 February 1302-1305 (?)

Nicholas, Archbishop of Thebes 31 July 1308-1331 (?)

Cardinalis 13 April 1332-1335

Gozio Battaglia 14 June 1335-1339

Roland de Ast 6 October 1339-died immediately afterwards

Henri de Ast, bishop of Nègrepont 24 November 1339-27 January 1345

Etienne de Pinu..... 6 March 1346- ?

William..... 11 December 1346-1361

administrator 23 August 1361-1364

His Highcent Peter Thomas, Archbishop of Crete 5 July 1364-6 January 1366

Paul, Archbishop of Thebes 17 April 1366-1370

Hugolin Malabranca 10 February 1371-1375 (?)

James of Itri, Archbishop of Otranto	18 January 1376-1378
William, Bishop of Urbino	15 January 1379- ?
Paul (Archbishop of Corinth?)	around 1379-?
Angelo Correr, Bishop of Castello	ter December 1390-1405
	Future Pope Gregory XII (1406)
Louis, Archbishop of Mitylene.....	4 August 1405- ?
Antonio Correr, cardinal, administrator.....	13 June 1408
Alfonso, Archbishop of Seville	20 September 1408- ?
Francis Lando, Patriarch of Grado.....	22 August 1409, resigned
Jean Contarini	23 October 1409- ?
Jean de La Rochetaillée.....	13 July 1412-26 June 1423
Jean Contarini.....	14 July 1424-? (1)
Gregory Mamme	appointed Patriarch of Constantinople for the Latins, around 1451, already being for the Greeks, t 1459
Isidore of Kiev, Cardinal,	20 April 1459-t 27 April 1463 (2)
Bessarion, cardinal	late April 1463-t 18 November 1472
Pierre Riario, cardinal.....	23 November 1472-t 5 January 1474
Jérôme Lando, Archbishop of Crete...	9 March 1474-4 27 December 1496 (<i>Pontifical Ann.</i> : October 16, 1493)
John Michael, Cardinal.....	-23 January 1497-t Io or II April 1503
John Borgia, Cardinal.....	24 April 1503-t I August 1503
François de Loris or Lorris, cardinal	9 August 1503-22 July 1506

(1) MAS-LATRIE, p. 444, inserted after Contarini's death two incumbents, François de Conzié and François Condoliner, who had to be deleted from the list, because Pius II placed the appointment of Grégoire Maimne during the vacancy produced by the death of

Contarini, *Annales Raynaldi*, ann. 1459, Les two named characters could only be, if they had a role, administrators, and of both, it is probably necessary to eliminate the first nominee.

(2) EUBEL, II, 150, place c. 1455 the appointment of Isidore. It surely took place on April 20, 1459, the date of the papal letter of institution, *Ann. Raynaldi*, l.c.

I v

PATRIARCHS OF ALEXANDRIA

Fundamental work replacing previous works: A. VON GUTSCHMID, Verzeichnis der Patriarchen von Alexandrien, in *Kleine Schröften*, II, 1890, 395-525. Texts published since: A) For the Melchites, continuation of Eutychius, patr. of Alexandria, by Yahya ibn Said (t 1066), Arabic text *CSOC*, ser. III, VII (1909); Arabic text and French translation by I. KRATCHKOVSKY and A. VASILIEV, in *PO*, XVIII (1924) (unfinished). For the rest, only sporadic data are available; B) For the Copts, PETRUS IBN RAHIB, *Eastern Chronicon*, ed. Cheiko (*CSCO*, ser. III, t. versio, 1903, pp. 109-152 : *De patriarchis alexandrinis* ; *History of the Patriarchs of the Coptic Church of Alexandria*, Arabic text edited, translated and annotated by B. EVETTS, in *PO*, I, 99-214, 381-518, V, I-215, X, 357-551; continuation par *History of the Patriarchs of the Egyptian Church, known as the History of the Holy Church*, by A. SAWIRUS IBN AL-MUKAFFA, vol. II, part. I, translated and annotated by YASSA ABDAL-MASSILI and O. H. E. BURMESTER, Cairo, 1943; part. II... by Aziz SURYAL ATIYA, YASSA ABD AL-MASSIH, O. H. E. BURMESTER, 1948. The chronology of these sources stops at 1°88. For the rest, we have various catalogues: Le catalogue patriarchal d'ABOU'L BARAKET IBN KOUBR, french translation by E. TISSERANT and G. WIET, in *the Histoire des patriarches d'Alexandrie* de Jean MASPÉRO, Paris, 1923, 361-379; the list of patriarchs of Alexandria in Qalqachandi, by E. TISSERANT and G. WIET, in *ROC*, 23, 1922-1923, 123-143.

Works: Jean MASPÉRO, *Histoire...*, cited above, posthumous publication. In this work, the author had initiated a Critical Chronology of the Patriarchs of Alexandria of the envisaged period: 518-616. The drafting was completed only for the first two patriarchs. For the rest, only fragments and notes remain. This test, which could not be developed, is outclassed by the next study which covers the same period and exceeds it; A. JC"LICHER, Die Liste der alexandrinischen Patriarchen im 6. und 7. Jahrhundert, in *Festgabe Karl Müller*, 1922, 7-23, the best list for this time. For the rest, we used M. CHAÎNE, *Chronology of Christian times of Egypt and Ethiopia*, correcting here and there errors of inattention and controlling it according to *the History of Patriarchs* and *the History of Yahya* cited above. The latest published list of the Patriarchs of Alexandria, that of Chrysostom Papadopoulos, 'IGropi.cc'Exz'A-rf5icxe; 'A'AsZocv4siog, is not the result of critical

work. We have used it, however, for lack of any other more assured, for the patriarchs of the coldest and fifteenth centuries, marking our reservewith question marks.

Theonas.....	282-28 December 300
Peter I, martyr.....	end 300-26 November 311 (1)
Achilas.....	t 13 June 312 (2)
Alexander	t 17 April 328
Athanasius	8 June 328-2 May 373

(1) No 310. See V. V. BOLOTOV, in *Christianskoe itente*, 1900, I, 445-447.

(2) The date 312 instead of 311 results from the previous one.

Arian intruders:

Pistos	336 or 338
Gregory.....	22 March 339 or 341-26 June 344 ^{gold} 348
George.....	24 February 357-24 December 361
Lucius, I ^{re} Time	December 365
Peter II	28 April 373-15 February 380
Lucius ^{2nd} Time	375-30 May 378
Timothy I.....	380-20 July 384
Theophilus.....	384-15 October 412
Cyril.....	17 October 412-27 June 444
Dioscore	444-13 October 451 (t 4 September 454)
Protérius	November 451-March 28, 457
Timothy II Elurea (monophysite), I ^{re} Times	March 457-January 460
Timothy II Salofaciolo (Chalcedonian), I ^{re} time... ..	June 460-December 475
Timothy II Elurea ^{2nd} Time	475-31 July 477
Pierre III Monge (monophysite), I ^{re} time.. ..	31 July 477-4 September 477
Timothy II Salofaciolo, 2nd time.....	September 477-June 482
John I Talaia (Chalcedonian).....	June 482-December 482
Pierre III Monge ^{2nd} Time	December 482-29 October 489
Athanasius II Keleres (monophysite)	489-17 October 496
John I (monophysite).....	496-29 April 505
John II (monophysite).....	505-22 May 516
Dioscore II.....	516-14 October 517
Timothy III (monophysite)	517-7 February 535

MELKITE PATRIARCHS OF ALEXANDRIA

Paul of Tabenn.....	537-around the first months of 540
Zoïle	540-July 551
Apollinaire.....	551-570
John II.....	570-580
Euloge.....	581-February 608
Theodore Scribon	608-609
John III the Chaplain	610-11 November 619
George	620 ?-630 ?
Cyrus	630 or 631-late 643 or early 644
Peter III.....	643/644-651

Toperetes:

Theodore.....	Synod of 655
Peter, I ^m ecumenical council.....	680
Theophylact, Council of Alexandria.....	695
Onopes ("Ovot: ?"), ordained patriarch, but immediately moved on to the mono-physites.....	c. 711 (<i>OP</i> , V, 66)
Eusebios?	
Cosmas I.....	742-768
Politién	768-813
Eustathe	813-817
Christophore	817-848
Sophrone I	848-860
Michael II	870-21 August 903
Christodula	17 June 907-21 November 932
Eutychius.....	7 February 933-11 May 940
Sophronius	li?
Isaac.....	August-September 941-954
Job	954-7 September 960
Efie	963-12 May 1000
Arsene.....	17 June 1000-7 July 1010
Theophilus II	1010-1020
George II	2 April 1021-1052 (?)

Leontce	1052	(?) -1059 (?)
Alexander II	1059	(?) -1062 (?)
John IV	1062	(?) -1062 (?)
Eulogus II		c. III ^o
Cyril II		?
Sabas, Council in Constantinople		1117
Theodosius		?
Sophronius III, present in Constantinople		1166
Eleuthera or Elijah		c. ii80
Mark III, Council in Constantinople		1195
Nicholas I	before February	1210-1243
Gregory I		1243-1263
Nicholas II		1263-1276
Athanasius II		1276-1316
Gregory II	1316	(?) -1354 (?)
Gregory III	1354	(?) -1366 (?)
Niphon	1366	(?) -1385 (?)
Mark IV	1385	(?) -1389 (?)
Nicholas III	1389	(?) -1398 (?)
Gregory IV	1398	(?) -1412 (?)
Nicholas IV	1412	(?) -1417 (?)
Athanasius III	1417	(?) -1425 (?)
Mark V	1425	(?) -1435 (?)
Philothée, received the invitation to the Council of	1,435	(?) -1,459 (?)
Mark VI		1459-1484 (?)
Gregory		1484-1486 (?)
Joachim, O I I; . vy	1487-1565	(was 92 years old in 1540; a document of him is of ^{1er} december 1565), t shortly after

COPTIC PATRIARCHS OF ALEXANDRIA

Theodosius	9 February 535-19 or 22 June 566
Julianists	
Gaïanos	10 February 535-May gold June 535
Elpidius	535-566
Dorothea	565-ap. 580
Theodore	575-587, not recognized by the majority
Peter IV	575-19 June 578
Damien	578-12 June 607
Anastasius ô ' . A.7: < ,yydcpLog (letter from Sophronius of Jerusalem to Sergius of Constantinople)	607-19 December 619
Andronicus	619-3 January 626
youngest child	January 626-January 3, 665
Julianiste:	
Mena	634
Agathon	665-13 October 681
John III	681-27 November 689
Isaac	4 December 689 or February 690-29 October 692
Simon I	692-18 July 700
Julianiste:	
Theodore	around 695
Vacancy: 3 years.	
Alexander II	25 April 704-t February 729
Cosmas	March 729-24 June 730
Theodore II	August 730—ter February 742
Vacancy: i year.	

Michael I..... 15 September 743-12 March 767
 Mena..... 767-27 December 775
 John IV..... 12 January 776-II January 799
 Mark II..... 27 January 799-17 April 819
 James..... June 819-8 February 830
 Simon II..... 17 April 830-30 September 830

Vacancy: 1 year, 47 days.

Joseph..... 18 November 831-20 October 849
 Michael (Khael) II..... 20 November 849-17 April 851
 Cosmas II..... 8 July 851-17 November 858
 Sanythios (Sanudah)..... 8 January 859-19 April 880
 Michael (Khael) III..... 880-7 March 907

Vacancy: 4 years.

Gabriel I..... May 910- February 15, 921
 Cosmas III..... April 921-March 27, 933
 Macarius I..... April 933-20 March 953
 Theophanes..... 19 June 953-6 December 956
 Mena II..... 956-II November 974

Vacancy: i year.

Ephrem..... 19 September 975-2 December 978
 Philotheus..... 28 March 979-9 November 1003
 Zechariah..... 16 January 1004-4 January 1032
 Sanythios II..... 19 March 1032-29 October 1046

Vacancy: 1 year, 5 months.

Christodula..... December 1047-December 10, 1077
 Cyril II..... 13 March 1078-6 June 1092
 Michael IV..... 9 October 1092-25 May 1102
 Macarius II..... 9 November 1102-19 December 1128

Vacancy: 2 years, 2 months.

Gabriel II..... 3 February 1131-5 April 1145
 Michael IV..... 25 July 1145-29 March 1146
 John V..... 25 August 1146-29 April 1166
 Mark III..... 12 June 1166-rer January 1189
 John VI..... 29 January 1189-7 January 1216

Vacation: 19 years, 5 months, ro days

Cyril III..... 17 June 1235-10 March 1243

Vacancy: 7 years, 7 months.

Athanasius III..... 12 October 1250-27 November 1261
 John VII, I^{re} fois..... t^{er} **January** 1262-21 October 1268
 Gabriel III..... 21 October 1268-1 January 1271
 John VII, ze fois..... I^{er} January 1271-21 April 1293
 Theodosius II..... 4 July 1294-1 January 1300
 John VIII..... 9 February 1300-29 May 1320
 John IX..... 28 September 1320-18 March 1327
 Benjamin II..... ro May 1327-6 January 1339
 Peter V..... 2 January 1340-8 July 1348
 Mark IV..... 5 August 1348-31 January 1363
 John X..... 30 April or 7 May 1363-13 July 1369
 Gabriel IV..... 6 January 1370-27 April 1378
 Matthew I..... 25 July 1378-31 December 1408
 Gabriel V..... 21 April 1409-4 January 1428 (Makrizi:
 4 July 1408-31 January 1427)
 Michael IV (known only by Makrizi)..... 12 March 1427-May 1427
 John XI..... II May 1428-4 May 1453

V

PATRIARCHS OF ANTIOCH

(General lists: BoscHius, *AASS*, *jul.* IV (at the head of the vol.); LEQUIEN, *Oriens christianus*, II; C. KOROLEVSKIJ, art. Antioch, *DHGE*, III, 697-700; M. CHAINE, *La chronologie de l'Égypte et de l'Ethiopie*, 254-256. — **Travaux spéciales** : R. DEVREESSE, *Le patriarcat d'Antioche* (jusqu'à la conquête arabe); CAVALLERA, *Le schisme d'Antioche*, p. 325 (ive s.); E. STEIN, *Histoire du Bas-Empire*, t. II; E. HONIGMANN, *Bishoprics and Bishops monophysites in the sixth century*, 1951. For the Melchite patriarchs from 969 to 1134, V. GRUMEL, *EO*, 33, 1934, 146-147 and also 53-54). For the Jacobite patriarchs of Antioch, the main sources of information are: the **Chronicle of Michael the Syrian** (ed. CHABOT) and the *Chronicon ecclesiasticum* of Barhebraeus (and its continuator) (ed. ABBELOOS and LAMY).

Cyril I.....	279/280-303 (exiled)
Tyrannos	304-c. 314
Vital	circa 314-320
Philogonos	320-324
Eustathe.....	324 or' 325-330 (deposited)
Paulinus II, transferred from	Tyre 330 (6 months)
Eulalios	331-332
Euphronios	332-333
Flacillos.....	333-342 (?)
Etienne I.....	342-344
Leontes.....	344-358
Eudoxus	358-359 (filed). Gets elected bishop of Constantinople in 360
Annanios	359 (immediately exiled)
Meleus.....	360-381
Euzebios, Arian.....	360-376
Paulin III, Catholic	362-388
Vital, apollinarist.....	375?
Dorothea, Arian.....	376-381 (?)
Flavian, Catholic.....	late 381 -September 404, succeeds Melethus
Evagre, Catholic	388-392 or 393, succeeds Paulin
Porphyry	404-414 (?)
Alexander.....	414-424
Theodotus	424-428
John I	428-441/442
Domnus.....	441/442-450
Maximus	451-455
Basil	457-458
Acace	458-459
Martyrius.....	before September 459-470
Peter the Fuller (r).....	470 (1)
Julian.....	471 (?) -475
John II Codonat.....	late 476-early 477

(i) R. Devreesse believes that there were four episcopates of Peter the Fuller, the first cutting in two the episcopate of Martyrius.

Etienne II	spring 477-479
The existence of another Etienne, successor of the previous one, is discussed.	
Calendion	479-4 ⁸⁴
Pierre le Foulon (3 ⁰)	485-489
Palladius	49 ⁰ -498
Flavian II	498-autumn 512
Severe	18 November (1) 512-29 September 518, t 8 February 538

MELCHITE PATRIARCHS OF ANTIOCH

Paul II	summer 519-spring 521
Euphrasios	spring 521-26 May 526
Ephrem	April/May 527-545
Domninus	545-559
Anastasius I (in)	559-57 ⁰
Gregory	57 ⁰ -593
Anastasius I (2 ⁰)	25 March 593-598
Anastasius II	late 598 or early 599-609

Vacancy: 30 years.

Macedonianus	639-after 649
George)
Macarius I .....	)-7 March 681
Theophanes	between 8 March and 5 April 681- ?
Thomas	¹)-685 (?)
George II	685 (?) 702 -(?)
Etienne III	74 ² /743-744/745
Theophylact Bar-Qânbara	744-75 ⁰
Theodore I	75 ⁰ /75 ¹ -773/774
Theodoret	before 787-?
Job	8 ¹ 3/\$ ¹ 4- ⁸ 44/ ⁸ 45
Nicholas I	845-867

Competitor: Eustathe

Etienne IV	870
Theodosius I	870-890
Simeon I	892-907
Elijah I	907-24 July 934
Theodosius II	August 936-943
Theocharistos	944-948
Christophore	960-969
Eustrates	November or December 969 (after the Io)
Theodore II	23 January 970-29 May 976
Agapius I	20 January 978-September 996
John III	4 October 996-July 1021
Nicholas II	17 January 1025-8 October 1030
Elijah II	ter April 1032-8 September 1033
Theodore III	3 March 1034-24 September 1042
Basil II	<u>D</u> <u>D</u>
Peter III	spring 1052-after August 1056
Dionysius	after August 1056-before August 15, 1057
(is called John (IV) in a Georgian source) (2).	
Theodosius III	before 30 August 1057-after 4 April 1059
Emilian	
Nikephoros the Black	¹ -1074-1079/1080 (year indict.) 1079/1080 (indictation year) -?

(1) For this day, cf. H. ENGBERDING, *Oriens Christianus*, 37, 1953, 132-134.

(2) V. GRUMEL, Jean or Denys? Note on a Patriarch of Antioch, *REB*, 9, 1951, 161-163.

John IV or V.....	(perhaps 1088/1089: year 1400 of the Seleucids), February 1091-October 'Dm
John V or VI	1106-1134?
Luke	1137/1138-1156, before the end (i)
Soterichos Panteugenos.....	late 1156, patriarch-elect, but then repulsed on 1 May 1157
Athanasius III.....	1157-22 June 1171
Cyril II .....	)-1173-1179 or later (2)
Theodore IV Balsamon	before 1189-1195 or after
Simeon II	before 1206-after 1235
David)
Euthym I.....	before 1258-c. 1274
Theodosius V of Villehardouin.....	June 1275-1283/1284
Arsene	transferred from Tripoli, 1283/1284-c. 1286
Cyril III	• transferred from Tyre, 1308, enthroned in Tyre 29 June 1287-c. 1308 (3)
Dionysius I (or II)	transferred from Pompeiopolis, competitor elected in Enthroned Cilicia 2nd semestre 1287, not recognized by Constantinople; remained sole titular 1309-1316 (4)
Cyril IV	>..)
Dionysius II or III) %
Sophrone	
Ignatius II.....	before November 1344-before 1359
Pashomial I (i°)	before 1359-1368
Michael I	1368-17 August 1375
Pashome I (2°)	August 1375-middle 1377
Mark I.....	middle 1377-10 April 1378
Pashome I (3°).....	April 1378-19 December 1386
Nile.....	before January 1388- ? (5)
Nicon .....	)-II January 1395 (5)
Michael II.....	6 February 1395-18 April 1412 (?)
Pashome II.....	June 1412 (?) -9 October 1412
Joachim I.....	)-1424-1425
Mark II.....	1426/1427-?
Dorothea I	1434/1435-8 September 1451
Michael III.....	14 September 1451-1456 (?)
Mark III.....	1456 (?) -1457/1458
Joachim II.....	Before June 1458-after June 1459
Michael IV	c. 1470/1474-before 1484

JACOBITE PATRIARCHS OF ANTIOCH

Sergius of Tella	557/558-c. 561
Paul the Black	564-577 retired to Constantinople) t in 584
Peter of Callinice.....	581-591
Julian I.....	591-594
Athanasius the Camel.....	595-631
John I.....	631-14 December 648
Theodore	649-667
Severe.....	668-680 or 684
Athanasius II	684-11 September 687

(1) Cf. V. GRUMEL, *EO* 33, 1934, 54-55.(2) Cf. V. GRUMEL, *ibid.*, 53-54.(3) Cf. V. Laurent *Mixtures Peeters*, II, 310-317.(4) cf. v. Laurent *ibid.*(5) NIL (Greek source) and NicoN (Arabic source) are perhaps one and the same character. Cf. V. Laurent *Lo* 36, 1937, p. 173, n. 1.

Julian II	November 687-708
Elijah	709-3 October 722
Athanasius III	April 724-740
John II	740-October 754
Isaac	755, intruder
Athanasius Sandalaya	755/756-758 or 759, intruder
George	December 758-790 (9 years in prison, 768-777)
David of Dara	758/9-763/764, intruder
Jean de Callinice	763/764-before 777, intruder
Joseph	790-Jan. 792
Cyria that	August 793-16 August 817
Abraham 808-837,	intruder
Dionysius I	June 818-22 August 845
Simeon	837-?, intruders
John III	21 November 846-3 December 873
Ignatius	5 June 878-26 March 883
Theodosius	5 February 887-June 896
Dionysius II	April 897-18 April 909
John IV	21 April 910-30 November 922
Basil I	15 August 923-25 March 935
John V	28 August 936-3 July 953
John VI	18 July 954-31 January 957
Dionysius III	28 November 957-2 June 961
Abraham	25 May 962-4 March 963
John VII	9 July 965-985
Athanasius V, also known as	Lazarus 21 October 986-1003
John VIII bar Abdoun	6 July 1004-2 February 1033 (exiled in Mount Ganos, c. 1029)
Dionysius IV	August 1049-1058
John IX	1058-1063
Athanasius VI	1064-1073
John X	6 January 1074-July 1075
Basil II	1075-c. 1095
John XI Abdoun	
Competitors:	
Dionysius V	7 April 1077-December 1077
John XII	1080-1082 or 1084-1086
Dionysius VI	1088-1090
Athanasius VII	1 December 1090-8 June 1129
John XIII	17 February 1130-1137
Athanasius VIII	4 December 1138-14 July 1166
Michael I	18 October 1166-7 November 1199
Michael II Intruder	1200-1215
Athanasius IX	19 December 1199-1207
John XIV	1208-1220
Ignatius II	22 May 1222-14 June 1252
Dionysius VII	14 September 1252-18 February 1261
competitor:	
John XV	4 December 1252-February or March 1263
Ignatius III	6 February 1264-17 November 1282
Ignatius IV, Philoxene	2 February 1283-early July 1292

Split of patriarchy

WESTERN JACOBITES (Armenia, Syria)

Simultaneous: in Mélitène, Constantine, metrop. of Mélitène...	Nov. 1292-Nov. 1293
in Cilicia, Ignatius Michel Barsumas, archimandr. from Gavi-catha	Nov. 1292-7 December 1312

Michel Josué Barsusan	1312-1349
Basil Gabriel	1349-1387
Philoxene the Scribe, evo. of Damascus	1387-1421
Basil Simeon Manaamita .	1421-1445. Last patriarch in this series.

EASTERN JACOBITES (Mesopotamia)

A Mardin	In Tour-Abdin
Ignatius V-I, Bar-Vahib 1 st January 1293- 15 April 1332	Ignatius I, Saba of Salacha.. 6 August 1364-1390
Ignatius VI-II, Ishmael Almaged 1332- 4 June 1365	Ignatius II, Joshua Bar-Muta... 1390-c. 1412 (driven out by the vizier), m. 1421
Ignatius VII-III, Schahab. . . 1365-January 1381	Ignatius III, Masud 1412-1420
Ignatius VIII-IV, Abraham Bar-Garib 1381-1412	Ignatius IV, Henoch 1421-1446
Ignatius IX-V, Behena 1412-1455	Ignatius V, Coumas Philoxenus 1446-1455
Ignatius X-VI, Chaleph . . . 25 May 1455-1484	Ignatius VI, Joshua Basil 1455-1466
Ignatius XI-VII, John Bar-Sila 1484- September 1493	Ignatius VII, Aziz Bar-Sabra 1466-1489
competitor:	Jean Bar-Couphar 1489-22 February 1493 Concurrent :
Ignatius Isa 1484- ?	Schaba 1489-?
Ignatius XII-VIII, Noah. . . 1493-28 July 1509	Ignatius VIII, Masud . . . 1493-Abdic in 1495. Last Patriarch at Tour-Abdin.

V i

PATRIARCHS OF JERUSALEM

(LEQUIEN, *Oriens christianus*, III, 1740; A. FORTESCUE, art. Jerusalem, in *The Catholic Encyclopedia*, t. VIII (1910), 355-364; CHRYSOSTOM PAPADOPOULOS, I 'IspoG o?. 1):1. (·)·) (1910); Archideacon DOWLEY, The episcopal succession in Jerusalem, in *Palestine Exploration Fund, Quaterly Statement*, 44th year, 1913, 164-177. De 458 à 575, Fr. DIEKAMP, *Die origenistischen Strei-tigkeiten im sechsten Jahrhundert*, 1899, p. 139. For the time of the Komnenos, V. GRUMEL, The chronology of the Patriarchs of Jerusalem under the Komnenos, in *Mélanges Nikov, Bulletin de la Société historique bulgare*, t. XVI-XVIII, 109-114. — The dates differing from the above lists come from personal research and control. — The names in brackets are those of the Diptychs of the Church of Jerusalem published by A. Papadopoulos-Kérameus in 'Av4·.), ExTq. ;. z.poo-Uuv.vnxi,ç

t. I, 1891, pp. 124-143.)	
Hymenaios	
Zabdas	260-298
Hermon (Hermas).....	298-300
Macarius I	314-333
Maximus II	333-350 or 351
Heraclius	350 or 351; established by Maximus before his death, but not accepted
Cyril I	350 or 351-386; episcopate several times interrupted by intruders: Eutychius; Irenée; Hilarius
John II	386-10 January 417
Praylius.....	417-422
Juvenal	422-458, first patriarch
Theodosius, bishop monophysite	after 451-towards the end of February or early March 457 (1)
Anastasius I	in early July 458-early January 478
Martyrius.....	478-13 April 486
Saluste	486-23 July 494
Elijah I	494-20 July 516 (2)
John III	1 September 516-20 April 524
Peter	524-early October 552
Macarius II (1 ⁰)	October 552-December 552
Eustochius (Eutychius).....	December 552-563/564
Macarius II (2 ⁰)	563/564-c. 575
John IV	574-594
Amos	594-601
Isaac or Hesychius	601-609
Zechariah	609-631
Modest.....	632-late 633 or early 634
Sophrone	late 633 or early 634-11 March 638
existence is disputed, see LEQUIEN, III, 281	
vacancy: more than fifty years	
Theodore I.....	752/754-after 767
705-735	
(Anastasius	II) 692-705 BC. Sound
John V	

(1) CSCO, *Scr. Syri*, series III, t. XXV, 15-16.

(0) CYRILLE DE SCYTHOPOLIS, *Vita Sabae*, 20, ed. E. Schwartz, 161.

Elijah II	before 787-797- ?; episcopate interrupted by an intrusion
Theodore, intruders) ?
George	">-807 or before
Thomas	807-821
Basil	821-839
John VI	839-843
Sergius I	843-859
Solomon	c. 860-865
Theodosius	before 867-c. 878
Elijah III	c. 878-907
Sergius II	907 (after 5 April)-911 (after September)
Leontes I	912-929
Athanasius I	929-before 937
Christodule	before 2 April 937-951
Agathon	951-964
John VII	964-28 May 966
Christodula II	966-21 January 969
Thomas II	969-979 BC
Joseph I	980-983/984
Agapios	983/984-985
Orestes	between January 15 and February 3, 986-1006
Theophilus I	1012-Jan 1020
Nikephoros I	July 1020-after 1048
Joannice)
Sophronius II	before '059-after 1064
Euthym I	D-after 1083
Simeon II	before 1092-between June or July 1099 (left Jerusalem end of 1097)
John VIII	around 1098-1106/1107- ?
Sabas	D-1117/1118-? (1)
Nicholas	D-February 1122-26 January 1156- ?
John IX	D- 12 May 1157- ?
Nikephoros II	D-2 March 1166-2 July 1171-?
Leontius II	c. 1174 OR 1175-14 May 1184 or 1185
Dosithée I	before 1187-September/October 1189
Mark II	late 1189 or early 1190-24 February 1195- ?
Euthym .....	)>, died at sinai monastery around 1222
Athanasius II	?-1235-?
Sophrone III)
Gregory I	D-1273-summer 1285- ?
Thaddée	D-1296-?
Athanasius III (1°)	D-1303-before 1308
Gabriel Vroulas	?-before 1309
Athanasius III (2°)	1309- ?
Gregory II	?-1322-?
Lazarus (1°)	D- D (deposited)
Gerasime	?-before 1341 (hunted)
Lazarus (2°)	before 1341-1367-?
Dorothea I	D-1377/1378-1402 (perhaps also 1412)-?
Theophilus	between 1419 and 1424- ?
Theophanes II	D-1430-?
Joachim	D-1437-1464- ?
Abraham	D-1468
Jacques	D-1482
Gregory)
Marc	D-1505-?

NOTE: Dosithée, notpx?,zuzlip.f.vx (PAP.-KÉRAMEUS, 'AveAsz-x 6t.6Xto0i,x`t)q, I, 245) makes known a patriarch ARSENE, who can only have place after 1341, but "to whom the lack of chronological precision prevents to fix a rank. Cf. V. GRUMEL, *Mémorial Louis Petit*, 173-174.

(i) Cf. *Regestes des patr. de Constantinople*, n.

Vii

LATIN PATRIARCHS OF JERUSALEM (1099–1291)

(L. DE MAS-LATRIE, *Les patriarches latins de Jérusalem*, ROC, I, 1893, 16-27 **Alexandr**
 POPOV, *Latinskaja ierusalimskaja patriarchija epochi krestonoscev*, S.-Peterburg, 1903 **Wilhelm**
 HOTZELT, *Kirchengeschichte Palästinas im Zeitalter der Kreuzzüge*, Köln, 1940)

15 July 1099: Capture of Jerusalem by the Crusaders

Arnoul de Rohes or Roeux, known as Malecorne (1°).....	Ie' August 1099-26/31 December 1099 (deposited)
Daimbert	26/31 December 1099-September 1102 (deposited)
Ebremar or Evremer	perhaps 8 October 1102-1105
Daimbert, restored to Pope Paschal II in the spring of	1105, died at Messina, during his return journey, without having taken up position, 15 June 1105.
Ebremar (continuous).....	1105-spring 1108 (deposed)
Ghibelline	spring 1108-t 6 April 1112
Arnoul de Rohes (2°)	26 April 1112-t 28 April 1118
Garmond (or Germond, Gormond) of Picquigny.....	January or February 1119-t end 1128
Etienne	late 1128-t autumn 1130
William I of Mechelen.....	1130-t 25 November 1145
Foucher	26 January 1146-t 20 November 1157
Amaury.....	1157-t 6 October 1180
Heraclius	16 October 1180-t shortly after 11 July 1191
.....	vacancy. Miscellaneous elections without result..... 1191-1194
Aymar the Monk (Haymarus Monachus)	1194-t summer 1202
Soffred.....	1202-late 1203 or early 1204 (resigned)
The B. Albert Avogadro	transferred from Vercelli, February/March 1204, part end of April 1205-t 14 September 1214
Raoul de Mérencourt.....	1214-t 1225
Thomas of Capua	1225, elected, not confirmed by the Pope
Gérold or Giraud de Lausanne.....	May 1225-t 5 December 1238
Robert of Nantes.....	15 May 1240-t 8 June 1254
Opizo, Patriarch of Antioch.....	1254, elected, unconfirmed
Jacques Pantaléon.....	9 April 1255-29 August 1261 (elected Pope: Urban IV)
William II, of Agen	1261-t 21 April 1270
Thomas Agni of Cosenza	17 March 1272-t 22 September 1277
Jean Ayglie or Jean de Vercel	1278-4 February 1279 (resigned)
Elijah.....	10 May 1279-t in Rome around 1287
Nicolas de Hanapes	30 April 1288-t 18 May 1291

May 18, 1291: fall of Saint-Jean-d'Acre

Viii

MAIN COUNCILS
INTERESTING BYZANTINE HISTORY

(The main references are the collection of the Councils of Mansi (see in particular, in t. 36 A, the Chronological Conspectus and the Alphabetical Index), the edition of the *Ecumenical Councils* of Ed. SCHWARTZ, the edition of the *Acta Patriarchatus* of Br. MIKLOSICH and J. MaLER, the *History of the Councils* of HÉFÉLÉ-LECLERCQ, the *Regestes of the Patriarchs* of V. GRUMEL (until 1206), the article

Constantinople by S. VAILHÉ in *DTC*)

- 325 *Nicaea* (I): 1st *ecumenical council*. Definitions of faith, disciplinary canons.
- 341 Antioch: against Saint Athanasius. Disciplinary canons.
- 343 Sardique, pronicean. Disciplinary canons.
- 357 Rimini: develops a dogmatic formula.
- 358 Sirmium: develops a dogmatic formula.
- 381 *Constantinople* (I): 2nd *ecumenical council*. Against the Arians and Macedonians. Disciplinary canons.
- 382 Constantinople: profession of faith sent to Rome.
- 401 Ephesus. Deposition by St. John Chrysostom of six Simoniac bishops.
- 404 Rufinians (Bithynia). Council "of the Oak": condemnation of St. John Chrysostom.
- 415 Diospolis (Palestine): against Pelagius.
- 431 *Ephesus*: 3rd *ecumenical council*. Condemnation of Nestorius.
- 449 Brigandage of Ephesus.
- 450 Constantinople: against the previous one.
- 451 *Chalcedon*: 4th *Ecumenical Council*. Definition of faith. Conviction of Eutychès and Dioscore. Guns. Foundation of the Patriarchates of Constantinople and Jerusalem.
- 518 Constantinople: against the monophysites.
- 536 Constantinople: against Anthime, Severus and Zoaras, monophysites.
- 553 *Constantinople* (II): 4th *ecumenical council*. Condemnation of the Three Chapters. Canons Dogmatic.
- 590 Constantinople: judgment of Gregory of Antioch by John the Faster.
- 638 Constantinople: monothelite.
- 639 Rome Lateran: antimonotherlite (convened by Pope Saint Martin I).
- 680/681 *Constantinople* (III): 5th *ecumenical council*. Condemnation of monotheism. Definition of faith.
- 692 *Constantinople*: *Council quinisexte* or *in Trullo*. Disciplinary canons.
- 732 Roman Synod against Iconoclasm.
- 754 Council of Hieria (last session in Constantinople). Against the cult of images.
- 787 *Nicaea* (II): 7th *ecumenical council*. Condemnation of iconoclasts.
- 809 Constantinople: Moeshian council against Joseph of Thessalonica and Theodore Studite.
- 815 Constantinople-Blachernes, iconoclast.
- 843 Constantinople: restoration of images.
- 859 Constantinople-Holy Apostles: condemnation of Ignatius.
- 861 Constantinople-Holy Apostles: condemnation of Ignatius. Disciplinary canons. These two councils are united under the sole name of "first-second council of the Holy Apostles".
- 867 Constantinople: deposition of Pope Nicholas I.
- 869 *Constantinople*: 8th *Ecumenical Council for the Latins*, 4th of Constantinople.
- 879-880 Constantinople-Hagia Sophia: recovery of Photius. Disciplinary canons.
- 899 Constantinople: end of the Ignatian schism.
- 920 Constantinople: council of the union to end the quarrel of tetragamy.
- Around 991 (or 996) Constantinople: meeting of the last opponents in the case of tetragamy.

- 1030 Constantinople: against the Jacobites.
 1054 Constantinople: against the Roman legates who excommunicated Michael Cerular.
 1076-1077 Constantinople: condemnation of the proposals taught by Italos.
 1082 Constantinople: synodal examination of the orthodoxy of Italos and his disciples.
 1086 Constantinople: condemnation of Leo of Chalcedon.
 1089 Constantinople: council concerning the meeting with the Roman Church.
 Around 1092 Constantinople (in the Thomaïte): reconciliation of Leo of Chalcedon and declaration on the cult of images.
 Around 1110 Constantinople: condemnation of the Bogomiles.
 1117 Constantinople: on the errors of Eustrates of Nicaea.
 1140 Constantinople: condemnation of the errors of Constantine Chrysomallos.
 1143 Constantinople: condemnation of bishops Clement and Leontius pour bogomilism.
 1144 Constantinople: condemnation of the monk Niphon as bogomile.
 1147 Constantinople: deposition of Patriarch Cosmas II of Attica.
 1156 and 1157 Constantinople: synods about the sacrifice of Christ in his passion and in the liturgy. Conviction of Soterichos Panteugénès.
 1166 Constantinople: synod about the word of Christ: My father is greater than me.
 1170 Constantinople: on the same subject and condemnation of Constantine of Corfu and Irénicos.
 1179 *Rome-Latran (III) (12th ecumenical for the Latins)*: **reported because of the presence and attitude of Georges de Corfou.**
 1195 Constantinople: canonical-liturgical responses to Mark of Alexandria.
 1199-1200 Constantinople: concerning the quarrel over the incorruptibility of the Corps and the Blood of Christ in the Eucharist.
 1215 Rome-Lateran (IV) (1,th *ecumenical for the Latins*): deals, among others, with the Greeks and the Crusade.
 1222 Nicaea: on the conduct to be held by the Cypriots subjected to Latin domination.
 1234 Nymphaeum: on the union with the Roman Church.
 1235 Nicaea: recognition of the Bulgarian Patriarchate of Tirnovo.
 1245 *Lyon (I) (13th ecumenical for the Latins)*: deals, among other things, with the Latin empire of Constantinople, of the Tartars, of the crusade.
 1251 Nicosia (Cyprus): on the relations of the Greeks vis-à-vis the Latin hierarchy.
 1264 Constantinople: deposition of Arsene (beginning of the Arsenite schism).
 1274 *Lyon (II) (11th ecumenical for the Latins)*: **meeting of the Greek Church with the Latin Church.**
 1276 Constantinople: confirmation of the union concluded in Lyon.
 1285 Constantinople-Blachernes: condemnation of John Beccos and his followers.
 1310 Constantinople: end of the Arsenite schism.
 1341 Constantinople: First Palamite Council.
 1345 Constantinople: antimalarial council.
 1347 Constantinople: Second Palamite Council.
 1351 Constantinople: Third Palamite Council.
 1431-1442 Basel: the question of the union of the churches is initiated there.
 1438-1439 *Ferrara-Florence (17th Ecumenical Council for the Latins, City for the Greek Catholics)*: decree of union 4 July 1439.
 1484 Constantinople: condemnation of the Council of Florence.

Vii

NATURAL PHENOMENA

- I. — Table of solar and lunar eclipses from 285 to 150o.
- II. — List of comets from 30o to 1462.
- III.— Earthquakes.

I

SOLAR AND LUNAR ECLIPSE TABLE (285-1500)

This table concerns total and partial eclipses, visible at least in some place in the Byzantine Empire or its European, Asian (Caucasus and Persian) or African (North Africa and Ethiopia) borders. It is based on OPPOLZER's Canon der Finsternisse, published in *Denkschriften der Wiener Akad. d. Wiss., Mathem. Classe*, LII, 1887, as well as on those of F. K. GINZEL, *Spezieller Kanon der Sonnen- und Mondfinsternisse*, Berlin, 1889, and of J. Fr. SCHROETER, *Sonnenfinsternisse von 600 bis 800 n. Chr.*, Kristiana, 1923. Ginzel gives the solar and moon eclipses, total and partial, and their degree of visibility in relation to the four main centers of antiquity, Rome, Athens, Memphis, Babylon, from the year 900 BC. J.-C. until the year 600 A.D. The book contains an important section concerning historical testimonies on eclipses up to the year 600 AD. We also have a list of these testimonies in the article of Bou, Finsterniss, *RE*, 6, 23522364. Continuing Ginzel, Schroeter gives, for the period from 600 to 800, solar and lunar eclipses and their degree of visibility in the area: — 30° to -1- 75 [long. and](#) + 30 to + 70° lat., but deals only with total eclipses. For partial eclipses from the year 600, special studies are missing. However, as far as the lunars are concerned, as it is only a question of indicating their presence, oppolzer's indications: central time and duration of the eclipse, longitude and latitude for the moon at its zenith, are sufficient, given the sunrise and sunset according to the seasons and latitudes, to make the discernment. As for the partial solar eclipses, for which oppolzer lacks the coordinates of longitude and latitude, we had to be satisfied with the indications of Pingré (in **The art of checking dates**), whenever his dates coincided with those of Oppolzer; but it should be noted that Pingré only envisaged Europe. With regard to Russia, mention should be made of Daniil SVJATSKIJ's study on the astronomical phenomena mentioned in the Russian chronicles, *Astronomiéeskija javlemja v russkich létapisach s nauéno-kritiéeskoj toi•ki zrrnija*.

We did not think it necessary, for our purpose, to indicate the hourly times of eclipses. They can be found in the literature.

Our table continuously gives within each year the solar eclipses with the lunars by observing their chronological order. Solar eclipses are distinguished by bold. Partial eclipses, either solar or lunar, are designated by parentheses.

Total solar eclipses: bold digits; partial: bold numbers in parentheses

Total lunar eclipses: meager digits; partial digits: meager numbers in parentheses

- 285, **III 8**.
 286, **II 26**.
 287, **I 31**.
 0, XII 25.
 1, VI 20, (**XI 30**).
 288, **XI 19**, (**XII 3**).
 289, **V 15**.
 2, (IV 19), **V 4**, **X 13**.
 290, (**IX 17**), **X 2**.
 291, **III 14**, (**III 28**), **IX 7**.
 292, (**II 17**), **III 3**.
 293, **II 6**, **II 20**, **VII 31**.
 294, (**I 25**).
 299, XI 24.
 300, (**V 5**).
 295, **IV 25**, (**XI 3**).
 303, **III 19**, IX 12, **IX 27**.
 296, (**II 22**), **III 8**, **VIII 31**.
 304, **II 10**.
 305, VII 27.
 306, I 5, (**VII 16**), **XII 25**.
 297, (**VI 20**), (**XII 14**).
 310, **X 25**.
 311, **IV 19**, **X 14**.
 312, (**IV 8**), **IX 17**.
 313, (**II 27**), **IX 7**.
 314, **II 17**, **VIII 12**.
 315, (**II 6**), **VIII 1**.
 316, **VII 6**, **XII 31**.
 317, **XII 5**, (**XII 20**).
 318, **V 31**, **XI 24**.
 319, **V 6**, (**V 20**).
 320, **X 18**.
 321, **III 30**, (IX 23).
 322, (**III 4**), **III 19**, **IX 12**.
 323, **VIII 18**.
 307, **II 11**, (**VII 22**), **VIII 6**.
 324, **116**, (VII 26).
 325, **I 5**, (**VII 1**) (**XII 11**), **XII 2S'**.
 328, (**V 10**).
 329, IV 29, **X 24**.
 331, (**III 10**).
 332, (**III 13**).
 326, **II 16**, **VIII 12**.
 327, **VII 17**.
 333, **111**, (**VI 22**), **XII 16**.
 334, VI 10, **XII 5**.
 335, (**V 31**), (**XI 24**).
 336, **V 6**.
 328, **X 19**.
 337, **III 30**.
 338, **III 4**, (IX 33).
 339, (**VIII 3**).
 340, I 27, **VII 23**.
 341, (I 2).
 342, (I 4), **VI 16**.
 343, (**V 21**), **VI 6**, **XI 15**.
 329, (**X 20**), **XI 4**.
 344, (IV 29), **X 9**.
 330, **IV 4**.
 331, **III 10**, IX 2.
 345, **II 27**, (**VIII 8**).
 332, **II 2**, (**VIII 12**).
 346, (**VII 3**), **XII 26**.
 347, (I 11), **XII p. 16**.
 333, **V 28**, (**XII 6**).
 334, **V 16**.
 348, (IV 20), (X 14), **X 29**.
 349, (**III 26**), IV 10, **X 3**.
 350, **III 15**, (**III 31**), (IX 23)
 360, **VIII 28**.
 361, **II 6**, **VIII 3**.
 362, **I 26**.
 363, (**I 16**).
 364, (**VI 1**), **VI 16**, **XI 26**.
 365, **XI 15**.
 366, (**V ii**), **X 20**, (**XI 4**).
 367, **IV 15**, **X 10**.
 368, **III 21**, (IX 13).
 369, **III 10**, IX 2.
 371, **II 2**, **VII 28**.
 372, **I 7**, **XII 26**.
 373, **VI 7**.
 351, XI 20.
 352, (**V 2**), (X 26).
 353, IV 20, **X 14**.
 354, (X 3).
 374, **III 15**, **IX 8**.
 375, **II 17**, **VIII 28**.
 355, (I 24), II 7, **VIII 2**.
 381, **I 12**, (**I 26**).
 383, VI 1, XI 11, **XI 26**.
 384, (XI 14).
 386, **IV 15**.
 385, (**VIII 30**), **IX 14**.
 387, **VIII 18**, (**IX 2**).
 390, **I 17**, **VII 13**.
 391, **I 7**, **VI 18**, **VII 2**, (**XII 27**).
 392, **VI 7**.
 386, **XI 20**.
 387, **V 2**.

- 397, (II 28), VIII ²⁴-
 398, (II 3), II 17, VIII ¹⁴-
 399, (II 7), VII 19.
 400, (VI 22), VII 8, XII 17.
 401, VI 12, XII 6.
 402, (VI I), XI 11, (XI 25).
 403, V 7.
 404, (IV ii) (X 4).
 405, III 31, (IX 9).
 406, III 6, (III zo), VIII 29, (IX 14).
 408, I 29, (II 13), VII 24.
 409, I 17, VI 29, VII 13.
 410, (I 7), VI 18.
 41 I., (V ²³), (XI 16).
 41 XI 4.
 41 IV 16, (V 2), (X 25).
 41 (III II), (IX 5).
 41 II 28.
 41 VII 19, XII 29.
 41 XII 18.
 41 (VI 12), (XII 6).
 41 V 17, XI 11.
 41 IV 22, X 16.
 41 IV 12, (IV 26), X 5.
 41 (III 31).
 41 III 6, VIII 29.
 41 (II 23).
 41 I 29.
 41 (I 18), (VII 12), XII 22.
 41 (VI 3), (XI 27).
 41 V 23, XI 16.
 41 (XI 5)-
 41 IV 16, X 10.
 41 (III 21), IX 29.
 41 (II 25), III xi, IX 4-
 41 II 14, (II 28), (VIII 24).
 437, VII 3, (VII 19), (XII 13), XII 28.
 438, (X I I I 7) .
 440, (V 3), V 17, (X 26).
 441, (V 6), X 16.
 442, IX 20, (X 5).
 443, III 17. "
 444, II 19, (VIII 14).
 445, (VII 20), VIII 3.
 446, (I 28), (VII 24).
 447, XII 23.
 448, VI 3, XI 26.
 449, V 8, (V ²³), (XI 16).
 451, (IV 2), (IX 26).
 452, IX 15.
 453, II 24, (III II), VIII 20, (IX 4).
 455, I 19, VII 15.
 456, I 9, VII 3, XII 13, (XII 27).
 458, V 28, (XI 6).
 459, V 3, (X 12), X 27.
 460, (IV 21), DC 30, (X 16).
 462, III 2, III 17, (VIII 25).
 463, II 19, VIII 15.
 464, (II 9), VII 20.
 465, (VI 24), VII 9, (XII 18).
 466, XII 7.
 467, V 19, (VI 3).
 469, (X 7)-
 470, IV 1.
 472, VIII 20.
 473, I 3o.
 474, I 19, VII 15.
 475, (I 8), VI 19, (VII 4).
 476, (V ²⁴), VI ⁷, (XI 17).
 477, V 13, (V 28), XI 6.
 478, (V ²), (X ²⁷).
 479, IV 8.X 1.
 480, III 27, (IX 5).
 481, III 2.
 482, (II 19), VII 31, (VIII ¹⁴)-
 483, I 24, (VII 6), (XII 3o).
 484, I 14, VI 24, XII 18.
 485, V 29, (VI 14), (XII 7).
 486, V 19.
 487, (IV 23), XI 1.
 488, IV 22, X 6.
 489, III 18, (IV 1), (IX 25).
 491, (VIII 5).
 492, (I 15), I 3o.
 493, I 4, (I 18), (VII 15).
 494, (VI 5), (XI 28).
 495, V 25, (VI 8), XI 18.
 496, (V 13), X 22, (XI 6).
 497, IV 18.
 498, (III 23).
 499, (III 27), (VIII 22), IX 5.
 500, (III 1), (VIII 25).
 502, VII 6, XII 29.
 503, (XII 19).
 505, (V 4), (X 28).
 506, (IV 9), X 18.
 507, III 29, (IV 13), (X 7).
 508, III 17.
 509, (II 2o), (VIII 16), VIII 31.
 51o, II 9, VIII 5.
 511, I 15, (I 29).
 512, VI 29, (XII 9).
 513, (XI 13), XI 28.
 514, XI 2, (XI 18).
 516, (IV 3), (IX 26).
 517, III 23, IX 15.
 518, (III 13), VIII 22.
 519, II 15, VIII 11.
 520, (I 20).
 521, I 8, (VI 20), VII 5.
 523, (XI 9).
 524, (IV 19), V 3, X 28.

- 526, IX 22.
 527, (III 4), IX 11.
 528, (II 6), II 21, VIII 16.
 529, (II 9), (VIII 5).
 530, I 15, VII 10.
 531, VI 15, XII 10.
 532, VI 3, (XI 28).
 534, IV 29, (X 8).
 535, IV 4, (IV 18), (IX 13), IX 27.
 536, (III 23), IX 1, (IX 15).
 537, II 25.
 538, (I 31), II 15, (VII 27).
 539, I 20, (VII 1), VII 17.
 540, (I 9), VI 20.
 541, (XI 19), XII 3.
 542, V 15, XI 8.
 543, IV 20, (V 4), (X 28).
 545, (IX 6).
 546, III 3.
 547, II 6, (II 20), (VIII 17).
 548, (XII 30).
 549, VI 25, VII 10.
 550, VI 15, XI 24, (XII 9).
 551, V 21.
 552, (IV 24), V 9.
 553, (IX 23), X 7.
 554, (IV 3), (IX 27).
 556, (VIII 6).
 o, 130.
 557, (I 20), VII 1.
 558, VI 21, (XI 30).
 560, XI 19, (XII 3).
 561, IV 30, V 15, (XI 8).
 562, IV 19.
 563, (III 25), (IX 18), X 3.
 564, III 13, IX 6, IX 21.
 565, II 16, (III 2).
 602, VIII 1.
 603, (I 1), (VII 7), (XII 16), 31.
 569, (VI 14), XI
 24. 570, (V 6), (X
 29). 571, IV 25, X
 572, (IV 14).
 573, III 19, IX 12.
 574, (II 21).
 575, II 11, (II 26), (VII 23), VIII 7.
 576, (I 31), (VII 26).
 577, XII 11, XII 25.
 578, VI 5.
 580, IV 29,
 X 24.
 581, (IV 5), X 13.
 582, (III 10), III 25, IX 18.
 583, (III 14), (IX 7).
 584, II 17, VIII 11.
 585, (I 21), VIII 1.
 640, (VI 26).
 641, (XI, 9).
 530, V 6, (V 20), X 29.
 590, X 4, (X 18).
 591, III 30, IX 23.
 592, (III 4), III 19, (VIII 28).
 593, II 21, (VIII 2), VIII 17.
 594 (II 10), VII 23, (VIII 6).
 595, I 16, (XII 22).
 596, I 5, VI 15, XII 10.
 597, VI 5, (XI 29).
 599, (X 9).
 600, (III 20).
 601, III 10, (IX 17).
 603, (II 1), (VII 28), VIII 12.
 604, I 22, VII 16, (VIII 1), XII 26.
 605, (I 1).
 606, (V 27), VI 11.
 607, (V 31), (X 26), XI 9.
 608, (V 5), (X 29).
 610, III 30, (IX 8).
 611, III 4, VIII 29.
 612, (II 22), VIII 2.
 613, VII 23.
 598, (I 1), XII 21/22.
 599, (I 5), (VI 2), VI 16/17, (XII ii).
 600, V 21, (VI 5).
 601, (IV 26), (X 20), XI 4.
 618, IV 15, X 9, (X 24).
 619, III 21, (IV 4).
 620, IX 2.
 621, (II 12), (VIII 8).
 622, (I 17), II 1, VII 28, (VIII 12).
 623, VII 3, XII 27.
 624, (VI 6), VI 21, (XI 30).
 625, V 27, (VI 10), XI 19/20.
 626, (V 17).
 627, IV 21.
 628, (III 25), (IX 19), X 3.
 629, III 14/15, (III 30), (VIII 24).
 630, (III 4).
 631, VIII 3.
 632, (I 13), I 27.
 633, I 1.
 634, VI 1, (VI 16).
 635, (V 7), XI 15.
 636, (IV 11), IV 25/26, X 20, (XI 3).
 637, (IV 15), X 9.
 638, III 21, IX 13.
 639, IX 3.
 640, II 13.
 641, (II 1), (VII 27).
 642, (XII 12).
 643, VI 7/8, XII 1.
 644, XI 5, (XI 19).
 645, V 1, X 25.

- 646, (IV 5), IV 21, (IX 3c).
 647, III 26, IX 19.
 648, (III 14), VIII 24, (IX 7).
 649, II 17.
 650, I 23, II 6, (VII 18), VIII 3.
 651, I 12, (VI 23).
 652, (I I).
 653, VI 1, (XI Io).
 655, IV 12, (X 21).
 657, (III 5), (VIII 29), IX 13.
 658, II 23, VIII 18, (IX 3).
 659, I 28, (II 13), (VIII 8).
 660, VII 13.
 661, VII 2, XII II.
 662, VI 7, (XII I).
 664, V 1, (X Io).
 665, IV 5, IX 30.
 666, (III 26), IX 4, (IX 19).
 667, II 28, VIII 25.
 668, (II 3), (VII 29).
 669, I 22/23, (II 6), VII 18.
 670, (I 12), VI 23, XII 18.
 671, VI 12, (XI 22), XII 7.
 672, XI Io, (XI 25).
 673, IV 22, V 6.
 674, X 5.
 675, (III 17), (IX 9).
 676, (II 19), III 5/6, VIII 29, (IX 13).
 677, VIII 18.
 678, I 28, VII 24.
 679, (I 2), VII 13, XII 22/23.
 680, VI 17/18, (XII II).
 681, V 23.
 682, (X 22).
 683, IV 16/17, (V 2), IX 26.
 684, (IV 5).
 685, IX 4.
 686, (II 14), II 28.
 687, (VII 15), VII 30.
 688, VII 3, (VII 18), XII 28.
 689, XII 2.
 690, V 28, XI 22, (XII 6).
 691, V 17/18, (XI II).
 692, IV 22, X 15.
 693, (III 27), (IX 20), X 5.
 694, III 17.
 695, II 19, (III 6), (VIII 29).
 697, (I 13), (VII 9), (XII 19).
 698, VI 29, (VII 13), XII 8, (XII 22).
 699, VI 3, XI 27.
 700, V 23, (XI ii).
 701, IV 27, X 21.
 702, IV 16/17, (X IO).
 703, III 22.
 704, (II 25), III 10, (VIII 19), IX 4.
 705, II 13 (VII 25), VIII 9.
 706, (II 2), VII 14, (VII 30).
 707, VII 4, (XII 13).
 708, (VI 8), XII 2.
 709, (V 14), V 28, (XI 22).
 710, V 3.
 711, (IV 7), X 16.
 712, III 27, IX 19.
 713, III 1, (IX 9).
 715, (VII 21), VIII 4.
 716, I 13, (VII 23).
 717, (I 2).
 718, VI 3, (XI 12).
 719, XI 2.
 720, X 6, (X 21).
 721, IV 1, IX 26.
 722, (III 7), (VIII 31).
 723, II 24/25, (III 11), VIII 20.
 724, (II 14).
 725, I 19, VII 14, (XII 24).
 726, I 8, XII 13/14, (XII 28).
 727, (V 25).
 728, (V 27), XI 6.
 730, IV 7/8, XI I, (X 16).
 731, IX 20.
 732, III 1, VIII 25.
 733, (II 3), VIII 14.
 734, I 24, VII 20.
 735, (I 13), (VII 9).
 736, (XI 23).
 737, V 18, (X 28).
 739, X ⁷.
 740, (III 18), IV 1.
 741, III 7, VIII 31.
 742, (II 24), (VIII 20).
 743, ^{I 30}.
 743, (I 4), (VI 29), XII 24.
 744, (I 7), VI 18, (XII ¹³).
 745, V 25, (VI 8).
 746, V 14, XI 7.
 747, IV 18.
 748, III 23, IX 30.
 750, IX 5.
 751, (II 15), III 2, (VIII I I), VIII 25.
 752, VII 30/31.
 753, I 9, (I 24), VII 5, XII 29.
 754, VI 25, (XII 4).
 755, (V 30), XI 23.
 756, V 18, X 28, (XI II).
 758, IV 12, (IX 21).
 759, III 18.
 760, (III 6), VIII 15, (VIII 31).
 761, VIII 5.
 762, (I 15), (VII Io).
 763, I 4, VI 29/30, (XII 25).
 764, VI 4.
 765, V 9, V 24.

- 766, X 22, (XI 7).
 767, IV 18/19, X 12.
 768, III 23.
 769, (VIII 22).
 770, II 14, (VIII 25).
 772, VII 5, (XII 15).
 773, XII 4.
 774, V 30, (XI 23).
 775, V 4, (V 19), X 29.
 776, (IV 8), (X 2).
 777, III 28, (IV 12), IX 21.
 778, (III 17).
 779, VIII 16.
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1472, V 22, XI 15.	1488, (I 28), VII 9.
1,473, IV 27, (XI 4)-	1489, XII 8, XII 22.
1,474; IV 16.	1490, (V 19), VI 2, XI 27.
¹ 475, III 22, IX 15, (IX 30).	1491, V 8, (V 23), XI 16.
1476, II 25, III Io, IX 3/4-	1492, X 21.
1478, (I 18), (VII 15), VII 29.	1,493, IV 1/2, IX 25, (X 10).
1479; I 8, VII 4, (VII 19), (XII 13), XII 28/29.	¹ 494, III 21/22, IX 15.
1480, VI 8.	1,495, VIII 20.
1481, V 28, XI 21.	¹ 496, (I 30).
1482, V 17, (X 26).	1497, I 18 (VII 29).
1483, IV 22, X 15/16.	1498, I 8, (VII 3), XII 13.
1484, (X 4)•	1500, (V 13), (XI 6).
1485, III 16, (VIII ²⁵)-	1501, V 3.
1486, II 18.	

I i

LIST OF COMETS (300–1462)

A "General list of comets from the origin to 1948" due to Mr. F. BALDET appeared in *the Yearbook for the year 19.50 published by the Bureau des Longitudes*. It is based, for the time and the regions that interest us, fundamentally on that of Mr. Pingré (work cited below), which dates back more than a century and a half. That is not enough of the basis. The historical sources which this scholar could have had at their disposal so as to review with the new resources of criticism, and many others published since then are to be consulted. A recasting is therefore necessary. It is not our job to do it. We will therefore use the list of comets of M. Baldet (1). We are, however, ingesting those whose theatre of appearance is too far removed from the regions of the Byzantine Empire. We add indications found in Byzantine or Eastern chroniclers, either complementary to this or that comet, or signalant comets that do not appear in the list. These various additions are printed in italics. An asterisk accompanies the comets thus attested.

The abstract references reproduced by us refer to the following works:

- p. PINGRÉ, *Cométographe ou Traité historique et théorique des Comètes*, Paris, t. I, 1783.
- B. E. BIOT, Catalogue of comets...; Catalogue of extraordinary stars...; Recherches faites dans les grandes collections des historiens de la Chine..., trois mémoires parus dans *Connaissance des temps*, Paris, 1846, pp. 44–84. Pagination is that of the separate draw.
- w. John WILLIAMS, *Observations of Comets from B.C. (511 to A. D. 1610*, extracted from *Chinese Annals*, London, 1871.
- Chambers, Ch. Georges F., *The Story of the Comets*, Oxford, 1909.

305 or 306	Rome	P. 300
319 (date uncertain).	between 307 and 323) Rome	P. 300
*334	General	Theophanes, 5826
336 16 February	Antioch	W. ²⁷ ; P. S96
<i>Antioch 362</i>		W. 28; PP. 302, 597

(1) The one that appears in P. V. NEUGEBAUER, *Astronomische Chronology*. I Baud. Text (Leipzig and Berlin, 1929), 175–185, is based on the lists of Pingré and Biot, without indication of other comets.

365 gold 37o	Europe	P. 302
375	Rome	P. 302
3 ⁸⁹ August	Rome	P. 303
39 ⁰ 22 August	General	W. 29; B. 39; P. 305, 598
400 19 March	Rome	W. 3o; B. 39; PP. 307, 598
4 ⁰²	Rome	P. 307
408	General	P. 308
412 Summer	Europe	P. 309
4 ¹³		P. 309
418 15 Sep. for i months	General	W. 31; P. 309; 599
	General	<i>Marcellinus, P. L.</i> , 51, 9 ²⁴
421 OR 420	General	P. 311
4 ²² 21 March	General	W. 32; P. 311
423 13 February	Numidia	W. 32; PP. 312, 600
430 gold 434	e	P. 312
442 November I	General	W. 32; B. 21; PP. 312, 600
*December 442 (several months)	General	<i>Idatius, P. L.</i> , 51, 881 C
448	Europe	P. 312
45 ¹ 17 May (Halley)	Rome	W. 33; B. 39; P. 312
45 ² (possibly the same)	Rome	P. 313
453 (possibly the same)	Rome	P. 313
455,459,467,480	France	P. 313
	Europe	P. 314
	Europe	P. 3 ¹⁴
(several)	Illyria	P. 314
488 (several)	Edessa	P. 314
499	and Mesopotamia	(Pseudo-) <i>Joshua the Stylite</i> trans. Martin, § 38, p. xxxIli
519	Rome, East	<i>Chr. Paschale</i> 612
524 (possibly a star)	Rome	<i>Michael the Syrian</i> II, 17o
*530 September (i)	Constantinople	P. 315
538	Europe	P. 315
*538 Dec Nu 539 January	Syria	P. 319
539	Europe	<i>James of Edessa</i> s. 215
539 17 November	General	<i>Michael the Syrian</i> II, 205
541 Easter	France	P. 319
*542/43 (854 Séleuc.)	Byzantine East	W. 39; B. 38; PP. 319, 600
547 (possibly a star)	France	P. 321
550 or in 54 ^{6/47}	Rome	<i>John of Ephesus</i> 227
55 ²	Europe	P. 321
November 556	Europe, Byzantine East	P. 321
563	France	P. 321; <i>Malalas</i> (489)
*565 October-December	Middle East	P. 322
566	Europe	<i>Elijah of Nisibe</i> 59
57 ⁰	Europe	<i>Michael the Syrian</i> II, 271
577 (meteor?)	France	P. 322
58o Easter?	France	P. 323
January 582 (uncertain)	France	P. 323
5 ⁸⁴	France	p. 324
586 (doubtful)	Constantinople	324 Ji-
589 or 594	Arabia	P. 324
591	Italy	P. 325,
595 9 January	General	P. 325
597 (doubtful date)	Arabia	P. 325
599	Syria	P. 326,
602	Constantinople	Ch. 242 [3]
		P. 326

(1) Instead of 531 marked by *the Yearbook*.

April 605	Europe	P. 326
November 605	Constantinop	P. 326
614 (between 614 and 617)	le Judea	P. 327
622	General	P. 328
626 26 March	Europe	W. 30; B. 38; P. 328, 608
632 (30 days)	Middle East	P. 328; <i>Theophanes</i> 6124
633	Europe	P. 329
640_ (questionable object)	Europe	P. 329
660	France	P. 330
664 or 673	France	P. 330
673	Europe	P. 331
674	Europe	P. 331
675	General	P. 331
676 7 July	Europe	W. 41; PP. 331, 609
*677 28 August-26 October	Syria	<i>Elie de Nisibe</i> 70
		<i>Michael the Syrian</i> II, 456
711	General	P. 334,
712 August	Arabia Middle	P. 334
716	East Europe	P. 334
719	Europe	P. 334
Jan. 729 (possibly two comets)	Byzantine	P. 335
*734 (possibly the following)	East Europe	<i>Theophanes</i> 6226
735 (questionable object)	Constantinopl	P. 335
74 ² June (questionable object)	e	P. 336
743 (questionable object)	Constantinopl	P. 336
744 ⁽¹⁾	e Syria	P. 336
*745 (night of 1" to 2 Jan.)	Syria	<i>Elijah of Nisibe</i> 81
745	General	P. 336
760 15 May	Europe	W. 44; B. 38; P. 336, 6w
762	Constantinopl	P. 337
*765 May	e Syria	<i>Michael the Syrian</i> II, 524
791	Europe	P. 337
800	Europe	P. 337
809 (questionable object)	Europe	P. 337
*812 4 November	Constantinopl	<i>Theophanes</i> 6305
813 4 August	e	P. 337
817 17 February	Constantinopl	W. 45; pp. 339, 612
818	e General	P. 339
824	Europe	P. 339
830	Europe	P. 339
837 March 22 (Halley)	Europe	W. 47; B. 36; PP. 340, 613
*838 November, 15 days	General	<i>Michael the Syrian</i> III, 97
841 22 December	Europe	W. 50; B. 36; PP. 346, 615
843 (several?)	Syria	P. 347
844 (doubtful)	General	P. 347
855 (questionable object)	Europe	P. 347
858	Arabia	P. 347
864 1 May, 20 days	France	<i>Annales Floriacenses</i> P. L.,
	Rome	139,
864 21 June	General	581
866 or 867 (several comets?)	Constantinopl	W. 50; PP. 348, 616
868 29 January	e General	P. 347
September 869	France France	W. 51; PP. 348, 616
*873		; P. 34 ⁸ , 616
875 6 June		P. 348
876 (possibly the same as the previous)		P. 349
*877 March	General France	P. 349
882 18 January	General	W. 51; PP. 349, 616
891 21 March ?	France	P. 350

¹) Probably the following.

892 spring	General	W. 51; P. 350, 616
898 or 899	France	P. 352
February 900 (a Nova?)	General	B. 23; P. 352
904 winter?	Constantinople	P. 352
905 22 May (I)	General	W. 52; PP. 352, 617
906	Europe	P. 353
912 13 May (Halley)	General	W. 53; B. 36 P. 353, 618
913	Europe	
*925 15 October	Muslim East	PEZ ³⁵ 4 Makin, 247
93 ⁰	Europe	P. 354
July 939	Italy	P. 354
941 9 August	General	W. 54; 64 ; P. 354, 619
942 18 October	France	P. 355
943 5 November	General	W. 54; P. 355
944 very Prob. the comet of 939 delayed by five years	Italy	P. 355
945	France	P. 356
*947 March 14 (10 days)	Syria	Elie of Nisibe, 102
May 959	Arabia	P. 356
959 17 October	Constantinople	P. 356
964	Europe	P. 357
968	Europe	P. 357
971 (questionable object)	Europe	P. 357
975 3 August	General	W. 55; P. 357, 620
979	Europe	P. 358
981 Fall	Europe Rome	P. 358
983 3 April	General	B. 23; P. 358
984 (questionable object)	Europe	P. 358
985	Rome	P. 358
989 13 August (Halley)	General	W. 55; B. 23; 35; P. 358, 620
*989 8 September (the same?)		El-Makin, 315
990	General	P. 359
992	Europe	P. 359
995 10 August	France	P. 359
996 (doubtful)	France	P. 360
997 or in 1005/06	Europe	P. 360
1000 14 Dec. (date uncertain) 999- 1001)		P. 360
1003 February	France	P. 362
1003 23 December	General	W. 56; B. 35; P. 621, P. 362
1004 Jan. (the same as the first one?)		B. 23; 35 ; P. 362
1005 4 October		B. 24, 35; P. 363
1006 3 April	Europe	P. 365
1007	General	P. 365
1008 Easter (meteor?)		P. 365
1009 (doubtful)	Europe	P. 365
1010 ("comets")	Europe	P. 365
1012 (a star?)	Europe	P. 365
1015 February	Europe Europe	W. 56; B. 24; P. 366, 621
1018 10 June	General Europe	P. 367, 622
1019 30 July	General Europe	P. 368
1023 Autumn	France	P. 369
1025	Europe	P. 630
1028	Russia	P. 369
1029 31 October (meteor?)	Europe	P. 369
1031	General	B. 24; P. 368
1032 15 July		Cedrenus, II, 500
*1033 28 February-15 March	Europe	P. 369, 622
1033 5 March	General	P. 370

(i) Probably the same as Anne Komnenos marks the same year on May 16 with a duration of 40 days.

1038	"73 (meteor?)	Europe
1041	1179 1 st August	Europe
1042 6 October	(meteor?)	Constantinople
1043 (doubtful)	1 r8r 6 August	Europe
1046		France
1053		Europe
1060 September?		France
1061 (the same as the first one?)		Europe
*1061 May, 40 days		Constantinople
1062		Europe
1064 and 1065 (prob. Halley anti-dated)		
1066 2 April (Halley)		General Europe
1067 May		Constantinople
1068		Constantinople
1071		Europe
1077 9 April (Venus?)		Europe
1084 June (possibly in imo-III)		Europe
1096 7 October		General
1097 30 September		Europe
*1097 (546 arm. month of Mareri: Nov.-Dec)		Byzantine East
1098 3 June		Asia Minor, Syria
1099		Europe Europe Europe
1100 Feb 24 (questionable)		Europe Europe
1103 ? (questionable object)		General Europe
1104 (several?)		Syria
1105 Feb. (the same as the following?)		Europe
1106 7 February		Syria
*1106 Feb 13 (50 days), probably the same as the previous one.		General Europe
1107 and '108 (the same as the above?)		Italy
*1108 June, 15 days		Europe
1109 December		Europe
mo May 29 (a Nova?)		General
*1110 6 June		Europe
1110 24 December		Europe
1112		Syria
May 1113 (the next one?)		Bohemia
1114 May		General
1115 August		
1117		General Europe
1119 (probably the previous one)		France
*1122-23 (1434 Séleuc.), 2 months		Europe
1125		Rome
1126 20 May		general
1127 (the previous one?)		
1132 14 August		General Syria
1137 (the previous one?)		Europe
1141		Europe
1144 (the next one?)		Europe
1145 15 April (Halley)		
*1145 May, 15 days		General
"47 12 February		Europe
1155 May		
1165 August (two)		
1167 (questionable object, date uncertain)		

P. 370
P. 371
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Skylitzes, 658
P. 373

P. 373
W. 57, 64; B.
P. 378
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W. 60; PP. 381, 626

Math. d'Edesse: H. Crois. Arm., I,
34
P. 382; *H. Crois., Occ.*, V, 476
P. 383
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P. 383
W. 60; PP. 384, 626

34 ; PP. 373,
623

Math. d'Edesse: H. Crois. Arm., I,
8r.
P. 389
Michel le Syrien , III, 197
P. 389
W. 60; P. 390, 629
Chron. Cassin., IV, 35; P.L.
173, 859
P. 390
P. 390
P. 391
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P. 391
P. 391
Michael the Syrian, III, 221
P. 391
W. 61; P. 391
P. 392
W. 61; PP. 392, 627
P. 392
P. 393
P. 393
W. 62; B. 32, 33; P. 393; 627 *Michael
the Syrian*, III, 269
W. 62; B. 33; P. 628
P. 394
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B. 25; P. 395

1182 (meteor?)	Constantinople	P. 395
1184 1 st May	Europe Europe	P. 396
1202	Constantinople	P. 397
1204	Europe Europe	P. 397
1208 (star or Venus?)	Italy General	P. 397
1214 March (sometimes dated 1215)	Europe Europe	P. 397
1217 autumn	General Europe	P. 398
*1222 15 August	Europe	<i>Anonymous: Muratori, I, 2, 235</i>
1222 15 September (Halley)	Germany	W. 62; B. 32; PP. 399, 629
1223 early July	Europe	P. 400
1224 24 August (Nova ?)	Ptolemaid	B. 32; P. 400
1230	Europe General	P. 400
1239 3 June	Europe General	P. 403
1240 31 January	Europe General	W. 63; B. 2; P. 403
1250-December	Russia Italy	P. 404
1253 18 September (meteors?)	Europe	P. 405
1254 or 1255 20? November	Europe	P. 405
1256	Bohemia	P. 405
1258	Europe	P. 405
1261 start	Trier	P. 405
1262	General	P. 405
July 1263 (the next one?)	Europe	P. 406
1264 17 July (1)	Europe Italy	W. 63; B. 2, 3; P. 406
1265 autumn	Europe	P. 411
1266 August	Europe	P. 413
1268	France	P. 415, 630
1274 28 February	Europe	P. 416
1282	General	D. 416
1283 (erroneous date: prob. 1298)	Europe	A. 416
1285 5 April	Europe	P. 416
1294 (we would have seen 3 comets?)	Lemnos	P. 417
1296	General	- • 418
1298	Europe	W. 67; B. 3; P. 418
1299 24 January	France	P. 420
1300 Sept. (the next?)	General	W. 67; B. 3; P. 420
1301 1 st September (Halley)	Europe	P. 423
1301 December	Constantino	P. 423
1302 July	ple Europe	P. 424
1303 (doubtful object)	General	P. 424
1305 April	Europe	P. 424
1307	Europe	P. 425
1311		P. 425
1312		W. 68; B. 4; P. 425
1313 13 April		P. 426
1314 may or october		W. 68; B. 4; P. 426
1315 28 November		P. 428
May 1316?		P. 428
1317		lake e/ zpovtz4 61-62
*1324 (meteors?)		P. 428
June 1333 (meteor?)		W. 69; B. 4; P. 429
1337 26 June		P. 432
1337 August ?		P. 433
1338 15 April		W. 71; B. 5; P. 434
1340 24 March		P. 435
1345 July		P. 435
1347 August		W. 71; B. 5; P. 437
1351 24 November		P. 438
1352 15 October (questionable object)		P. 438
1353		

(1) According to an anonymous in *Muratori, I, 2, 235*, this comet appeared on 25 May and lasted two months; according to Otto de Frising continued, MGH, 55, 20, 336, it disappeared on 2 October, the day of the death of Pope Urban IV, three months after his first appearance.

1360 12 March		W. 71; P. 438	
1362 5 March	general general	W. 72; B. 5; P. 438	
1368 7 February	General	W. 74; B. 7; P. 44 ¹ ,	630
1371 15 January	Europe	P. 44 ²	
1375 (doubtful)	Europe	P. 44 ²	
1381 November	Europe	P. 443	
1382 30 March	General	P. 443	
1382 19 August	Europe	P. 443	
1382, December	Europe	P. 444	
1386 27 September	Europe	P. 445	
1390	Europe	P. 445	
1391 23 May	General	W. 74; B. 7; P. 445	
1394	Europe	P. 445	
1399 November	France	P. 445	
1400 and 1401 Feb., Prob. the			
following.	Europe	P. 44 ⁶	
anticipated by 2 and I year	General	P. 447	
1402 8 February	Europe	P. 449	
1402 June	Europe	P. 45 ¹	
1403 Io Jan. (questionable	Germany	P. 45 ²	
object)	Europe	P. 45 ²	
1406 1 th semester	Europe	P. 45 ²	
1407 start (the previous one?)	Europe	P. 45 ²	
1408	Europe	P. 45 ²	
1410 Io March	General	W. 76; B. 8; P. 453	
1414	Europe	P. 454	
1433 15 September	Europe	Ch. 243 [in]	
1434 start	General	W. 76; B. 8; P. 454	
1438	General	W. 76; B. 8; P. 454	
1439 25 March	Europe	P. 45 ⁹	
1,444 6 August	General	W. 77; B. 8; P. 459	
1454 summer	General	W. 78; B. 9; P. 464	
1456 27 May	(Halley)	W. 78; B. 9; P. 464	
1457 14 January	(Crommelin)	W. 78; P. 465	
1457 15 June	General	P. 466	
1457 26 October	General	W. 89; B. 15	
June 1458	General	W. 90; B. 15; P. 466	

Iii

EARTHQUAKES

Lists of earthquakes without references to sources cannot meet the requirements of workers. This is Schmidt's, published in *Archiv für byz. und mittelgr. Sprache*, i, 1880. When we wanted to control it, we were surprised to see that several earthquakes reported by Theophanes were dated there according to the Christian era of this chronicler, which is 8 years behind ours. The work of A. PERREY, *Mémoire sur les tremblements de terre ressentis dans la péninsule turco-hellénique et en Syrie (Mémoires couronnés et mémoires des savants étrangers publiés par l'Académie royale de Bruxelles, t. XXII, 1850)*, is accompanied by references, sometimes to second-hand works. This work of ensemble is remarkable for the time. However, we have not reproduced it. We ourselves have done a research on the sources, benefiting from publications that have since appeared. The list we are presenting corrects a good number of dates from his, adds new ones, but also drops some of them, which seemed to us either to be duplicating, or not to be seriously founded, or are based on data that we could not control.

This is a list of the territory of the Byzantine Empire, to which we add Armenia. Even in this limited area, it cannot be presented as complete. It will be useful until a comprehensive study emerges. For the rest of Europe, Frédéric MONTANDON's book, *Les tremblements de terre destructives en Europe. Catalogue par territoires sismiques, de l'an 1000 à 1940* (publié en polycopie), Genève, 1953, will serve only as a first orientation, since it does not refer directly to the sources, but to works whose authority is unequal. The author has the merit of having spooled many publications whose list is given.

References to THEOPHANE are made to the year of the world marked in the edition of DE BOOR; those in the *Annals* of BARONIUS and RAYNALD are made in the year of Christ, followed by the paragraph number (t); those in Ammianus Marcellinus, IN THEODORET and ÉVAGRE are done in the internal joints. A CSCO, Script. Syri, series III, tomus IV (versio), refer to the following references: *Chronicon Edessenum*, James of EDESSE, *anonymous Syrian of 746*, *anonymous Syrian of 813*. References to John of Ephesus refer to W. J. VAN DOUWEN and J. P. N. LAND, *bannis Ephesini episcopi Commentarii de beatis orientalibus et Historiae ecclesiasticae fragmenta*, Amstelodami, 1889. — Élie DE NISIBE, *Opus chronologicum*, CSCO, Script. Syri, versio, series III, t. VII. — Thomas AZDZROUNI, *Histoire des Azdzrouni*, trad. BROSSET, *Coll. d'historiens arméniens*, t. I, Saint-Petersbourg, 1874. — Arakel DE TAURIS, *L'ivre d'histoires*, *ibid.* — SEMPAD, in LANGLOIS, *Extraits de la chronique de Sempad suivi de celle de son continuateur*, Saint-Petersbourg, 1862. — *Anthologie chronologique*, dans DULAURIER, *Recherches*. — BE, oczécc zpřivtze de Sp. LAMBROS dans *ΑΙ ΒΥΖΑΝΤΙΝΑΙ ΧΡΟΝΙΚΑΙ*, Athens, 1932-1933. - 'Ev0up.lyystc; 'Ev0u!i.-;)(-5E-cov i tr zpovty.é;")

(1) Reference is made to these two annalists because their references to the sources are, in the cases cited, difficult to identify.

npd)7. r *Neos Hellènomnèmon*, 7, 1910, 113-133 (we refer to the numbers). Unless otherwise indicated, the pagination of the Greek chroniclers is that of the Corpus of Bonn.

Our manuscript was already handed over to the printer when Glanville DOWNEY's article, Earthquakes at Constantinople and Vicinity, *Speculum* 30, 1955, 596-600 appeared. We took this into account in the proofreading, although we could not accept all its dates.

<i>Dates</i>	<i>Places</i>	<i>Sources</i>
under Constantine	Campania	Georges le M., éd. De Boor, 502
320	Alexandria	Theophanes (5812)
332	Cyprus	Theophanes (5824)
34 ¹	Antioch	Theophanes (5833)
342	" East ", " East " same)	s. Jerome, Olympus 281, 5 th year-
		born Constance II
342	Cyprus	Theophanes, 5834
343	Neocesarée	Theophanes, 5835
344	Rhodes	Theophanes, 5836
345	Dyrrachium	Theophanes, 5837
345	Rome	Theophanes, 5837
345	Beirut	Theophanes, 5840
348	Macedonia, Asia, Pontus,	
358 24 August	Nico-	Ammien Marc., XVII, 7, 1-18;
		Idatius
359 Oct.	Nicomedia	<i>Consules, P. L., 51, 909</i> Chr.
		<i>Paschale</i> , 543; Theoph.,
		585 ⁰
under Julian	Jerusalem	Theodoret, III, 22
365 21 July	general and tidal wave at Alexandria	
368 il Oct. (Malalas: Sept.)	Nicaea and Bithynia	Ammien Marc., XXVI, Io, 18-
		19 ; Theophanes, 5859
368 or 369 375	Sprouted	Socrates, <i>P. G.</i> , 67, 481;
or 376 under	Peloponnese, Crete	Malalas.
Gratian 394	Alexandria, Epirus and Sicily	34 ²
Sept. to Nov.	Europe	Socrates <i>P. G.</i> , 67, 481
396	General	Zosimus (192)
June 402	Constantinople	Cedrenus, I, 55 ⁰ -55 ¹
403 (doubtful)	Constantinople	Marcell., <i>P. L.</i> , 51,
407 1 ^{April}	Constantinople	920 Prosper, <i>P. L.</i> ,
408	Rome	51, 588 Marcell., <i>P.</i>
41 ⁷ 20 April	Europe	<i>L.</i> , 51, 924
419	Palestine	Théodoret, V, 34
422	without indication	<i>Chr. Paschale</i> , 570
423 6 April	without indication	Théophane, S900
437 25 Sep.	Constantinople (litur memory- to date)	<i>Chr. Paschale</i> , 574
44 ² 17	General	Marcell., <i>P. L.</i> , 51,
April 44 ²	Rome	924
		<i>Chr. Paschale</i> 580
		<i>Chr. Paschale</i> , 580
447 Nov 6	Constantinople and elsewhere moire liturg. (met to date)	Theophanes (593) ⁰
		Theophanes (5934)
		<i>Hist. miscella</i> Ed. Eyssenhartd
		327 ; Theophanes 5934
under Theodosius II	Crete	(without
450 26 Jan.	Constantinople (liturgical to date)	indication of location)
under Marcian	Phoenicia, spec. memory. Tripoli	<i>Chr. Paschale</i> , 586
458 14 Sept.	Antioch	Marcell. <i>P. L.</i> , 51, 927
		Malalas, 359

<i>Dates</i>	<i>Places</i>	<i>Sources</i>
460	Cyzic, Thrace, Hellespont and Cyclades	Marcell., 930; Evagre, II, 14
4 ⁶⁵	without indication	Idatius, <i>Consul., P.L.</i> , 51, 886
472 Nov 6	eruption of Vesuvius and rain of ashes in Constantinople (liturgical memory to date)	Theophanes, 5966; Marcell. 931
under Basiliscus	Gabala of Syria	Malalas (378)
477 25 Sept.	Constantinople	Theophanes, 5970; Cedrenus, I, 618
480	Constantinople	Marcell., 932
487 26 Sep.	Constantinople	<i>Chr. Paschale</i> , 605
494	Laodicea, Hierapolis, Tripoli from Syria	Marcell.; 934
499 Sep.	Edessa, Nicopolis (from Syria)	(Pseudo-) <i>Joshua the Stylite</i> , ed.
503	Neocaeon, Ptolemais, Tyre and Sidon	P. Martin, n. 35 (p. xxx)
515 circa		<i>Ibid.</i> , n. 48 (p. xLII); Theophane (5995)
518	Rhodes	Cedrenus I, 628
522	Dardania, spec. Uskub	Evagre, III, 43; Malalas (406)
525	Dyrrachium and Corinth	Marcell., 939-94 ⁰
525 4 Oct.	Anazarbe	Theophanes, 6014
526 20 May	Antioch, Seleucia of Syria, Constantinople	Theophanes, 6017
528 Nov 15 (<i>Chr. Edess.</i>)	Antioch	Cedrenus I, 640
Nov. 29 (Theophanes) (a Wednesday)	Antioch	Theophanes, 6018; Malalas, 419 Theophanes, 6021; <i>Chr. Edess.</i> , 10
529		
530	Clustered	Malalas 448
Nov. 533	Myres	Malalas 448
536	Constantinople	<i>Chr. Paschale</i> , 629
538 ⁸ / ₉ (810 Séleuc.)	Pompeiopolis of Mysia	Theophanes, 6028
539 29 Nov.	Pompeiopolis of Cilicia	John of Ephesus, 225
541 2 Jan.	Antioch	John of Ephesus, 226
542 16 August	laodicea	John of Ephesus, 227
543 6 Sep.	Constantinople	Theophanes, 6034
	general, spec. Cyzic	John of Ephesus, 227; Malalas 482
543		
546	Corinth	Theophanes, 6036
548 Feb.	Constantinople	Elie de Nisibe, 58
551 July 9	without indication	Theophanes, 6038
554 August 15 (midnight on Saturday)	Palestine, Syria, Arabia	Theophanes, 6040
	Constantinople, Nicomedia, Alexandria	Theophanes, 6043
555 II July		
557 16 April	without indication	Theophanes, 6046; Jean d'Éphèse, 241
557 19 Oct.	without indication	Theophanes, 6047
557 Dec 14-23	Constantinople, Antioch	Theophanes, 6049
	Constantinople	Theophanes, 6050
Around 558		Theophanes, 6050; Malalas (488)
558/559 (870 Seleu.	cos	Agathias 281
	Beirut, Galilee, Arabia, Palestine	Agathias, 98
561 several	without indication	John of Ephesus, 241
		Theophanes, 6053

(i) John of Ephesus gives 7 August 551, but the concordance marked by Theophanes is not observed.

<i>Dates</i>	<i>Places</i>	<i>Sources</i>
567 Oct 5	Syria	Elijah of Nisibe, 59
568 14 Jan.	Constantinople	John of Ephesus, 242
580/581 (3rd year. of Tiberius)	Antioch, Daphne	Evagre, V, 17
583 10 May	Constantinople	Theophanes, 6075
584/585	Arabissus	John of Ephesus, ed. Brooks worm
	Antioch	SiO, 208
Oct. 588	Mesopotamia	Evagre, VI, 18
601 2 April	Constantinople	Michael the Syrian, II, 373
611 20 April	Rome	<i>Chr. Paschale</i> , 702.
618 August		<i>Liber Pontif.</i> , ed. Duchesne, I, 319
632	Palestine	Theophanes, 6124
June 659	Palestine and Syria	Theophanes, 6150
679 3 April	Mesopotamia, spec. Edessa	Theophanes, 6170; anonymous sy-
	Syria	nothing from 746, 175
713 28 February	without indication	Theophanes, 6205
717 24 December		Anonymous Syrian of 746, 177
718 21 or 24 Jan., shaking for six months	Syria	Anonymous Syrian of 746, 177
	Constantinople, Nicomedia, Nicaea (liturgical memory)	Elie de Nisibe, 77
740 26 October		Anonymous Syrian of 746, 177
	various places, special. Yemen	Theophanes, 6210
74 ²	Caspian gates	
743 or 744	Palestine and Syria	Theophanes, 6232; Zonaras, XV, 4, ed. Dindorf, III, 343
746 18 January	Syria: Thabor, Mabbug	Theophanes, 6234; Cedrenus II, 5, ii-13
748 ⁸ / ₉ (1311H)	Syria	Theophanes, 6235
749/5 ⁰ (3rd indict.)	Without indication of location	Theophanes, 6238
755		Elie de Nisibe, 82
756 9 March	Palestine and Syria	Theophanes, 6241
768/9 (1080 Séleuc.)	without indication	<i>Danduli chronica</i> , ed. E. Pasto-
790 9 February	Constantinople	rello, 117.
April 796 (sells)	Crete	Theophanes, 6248
796 4 May	Constantinople	Anonymous Syrian of 813, 188
801 30 April	Spoletto and Italy	Theophanes, 6282
824 5 May (Ascens.)	Panion, Heraclea of Thrace	Theophanes, 6288
862 (Ascension)	Constantinople	Theophanes, 6288
Around 862	Dvin (Armenia)	Baronius, s. 801, I
864	Constantinople	Genesius, 45
		Cedrenus II, 173
869 Jan 9 40 days	Constantinople (liturgical memory to date)	Thomas Ardzrouni (184)
		Georges cont., ed. Istrin 12
885/886 (272H)	Egypt	
889/990 (276H)	tell des Beni Saeiûq	<i>Photii epist.</i> , <i>P. G.</i> , 102, 873
892	Dvin (Armenia)	<i>Vita Leonis Armeni</i> , <i>P. G.</i> , 108.
		1086 D; Symeon Magister
893 23 December	Dabel	<i>Vita Basilii</i> (Bonn, 688) Elie of Nisibe, 89
926 or early 927	Thracians	Elie of Nisibe, 90
948	Constantinople	Jean Catholicos, trans. Saint-
957/958 (346H)	Baghdad and Rai	Martin, 120; Thomas Ardz-
967 2 September	Honoriade and Paphlagonia, spec.	rouni, 184, 185
	Claudiopolis	Elie de Nisibe, 91

<i>Dates</i>	<i>Places</i>	<i>Sources</i>
968 18 December	Corfu	<i>Liutprandi legat.</i> , n. 64; <i>P. L.</i> , 186, 936 A
986 October	Constantinople	Cedrenus II, 438
989 25 October	Constantinople	Leo Deacon (175)
990 25 October	Capua and Benevento	<i>Chron. Cassinense</i> , II, I I; <i>P. L.</i> , 173, 596
1004	Naples	<i>Ann. Cassin.</i> : Muratori, t. V, 55
1010 Jan-Mar	Constantinople and prov.	Cedrenus II, 456
1032 13 August (Sunday)	probably in Constantinople	Cedrenus II, 500
1033 March 6	probably in Constantinople	Cedrenus II, 500
1034 17 February	Syria	Cedrenus II, 503
1034 between April and Seven.	Jerusalem	Cedrenus II, Self; Michel Gly boxes, 587
1035	Camels	Cedrenus II, 513-514
1036 18 December	Prob. Constantinople	Cedrenus II, 515
1037 Nov 2, tremors until the end of January	Thrace, Macedonia and Thessaly	Cedrenus II, 518
1038/39 (indict. 7)	Prob. Constantinople	Cedrenus II, 521-522
1040 2 February	Smyrna and various places	Cedrenus II, 522
1041 10 June	Constantinople	Cedrenus II, 532
¹⁰ 43/44 (495 armen.)	Ezencan (Arzindjan), Haute-Armenia	Arakel, 564
1063 23 September	It is the order of the world's republic of Thrace, Cyzic and Nicaea.	Skylitzes, 657
1064/65 2 earthquakes	various rentals	Attaleiotes, 90
1090 6 December	Constantinople	Michel Glycas, 620
1091 September	Constantinople	Sempad 7
1114 Nov 29, Sunday	Antioch, Nisibe	<i>Chronological anthology</i> 308-309
1117	Syria	<i>Chron. Cassinense</i> IV, 62; <i>P. L.</i> , 173, 884 CDs
1124	Italy, spec. Verona	<i>Chron. Cassinense</i> , IV, 65; <i>P. L.</i> , 173, 887
1124 Nov 13, the same	Cilicia, spec. Mopsueste	<i>Danduli Chronicon</i> , ed. Pastorello, 230
1125	Antioch	<i>Ibid</i>
1127 13	Benevento	Ann. Benev., apud Baronium, 1125, II
Jan. 1135	without indic. of place	<i>Danduli Chronicon</i> , ed. Pastorello, 231
1137/1138 (532H)	Liguria	<i>Annales Cassin.</i> : Muratori, vol. V, 62
1138 20 October	Syria, Iraq	H. Crois., Or., I, 25; II, 502
1140	Syria, Mesopotamia	H. Crois., Or., I, 433
1156 26 October	Kingdom of Naples	<i>Annales Cassin.</i> : Muratori, vol. V, 64
1157 August-September	Aleppo and the borders of Arabia	H. Crois., Arm., I, 179
1166/67 (615 armen.)	Syria, many cities	H. Crois., Or., I, 503
1168/69 (617 Armenian)	Ezencan	Arakel, 566
1170 29 June	Ezencan	H. Crois., Or., I, 83
1172 26 September	Syria	<i>Anonym. Muratori</i> , I, 2, p. 235
1200/1 (597h)	Sicily	<i>Ibid.</i>
1202 1 March	Syria	
1202 20 May	Constantinople	
1203/04 (600h heg)	Syria, Mesopotamia, Asia	
1216	neure	
1222 25 Dec, Sunday	Italy	
	Italy, especially Brescia	

<i>Dates</i>	<i>Places</i>	<i>Sources</i>
1222	Cyprus	H. Crois., <i>Arm.</i> , II, 671
1231	Rome	Baronius, c. 1231, XXXI
1236/37 (armén. 685)	Ezencan	Arakel, 566-567
1254/55 (armén. 703)	Ezencan	Arakel 567
1261/62 (1573 Séleuc.)	Syria	Elie of Nisibe (continued), 113
1266' 1 ^{er} June	without indication	'Ev0uti.-ipstç, n. 39
1269	Armenia	<i>Gestures of the Chyprois</i> , 368: H.
		Crois., <i>Arm.</i> , II, 772
1273	Dyrrachium	Arakel 567
1275/76 (armén. 724)	Cilician Armenia	Pachymère, I, 355
1279 24 April	Venice and Italy	H. Crois., <i>Arm.</i> , I, 608
		<i>Danduli chronicon</i> , ed. Pasto-
1281/82 (armén. 730)	Ezencan	rello, 312.
1287/88 (armén. 736)	Ezencan	Arakel, 568
1296 1 ^{er} juin-17 juillet	Constantinople, Asia Minor	Arakel, 568
1298 30 novembre	Rieti (Central Italy)	Pachymerus, II, 233-235
1302/03 (702h) 1303 7 August	Syria, Egypt	Raynaldi, 1298, XXIII
1323 or early 1324	Crete, Rhodes, Cyprus	H. Crois., <i>Or.</i> , I, 173
1332 II February	Constantinople	H. Crois., <i>Arm.</i> , II, 856
1341	Constantinople	[S] Phrantzes, 32
1343 II October 12 days	Chora in Thrace	Gregoras, I, 460
	Constantinople	Cantacuzène, II, 477
1354 2 March	Constantinople	'Ev0uti.lpst.q, n.- 58; <i>EO</i> , 36, 1937, 169
1355, early spring	Coastline of Thrace	Bp%xice xpovtxo'c, 59
1355/56 (armén. 805)	Ezencan	Cantacuzène, III, 277
1374 8 December	Ezencan	Arakel, 569
1389 20 March	Chio	Arakel, 569
January 1400	without indication	'Eveup,laenç, n. 82-83
1421 14 January	Argos	'Eveutzi,reg, n. 90
1422 13 April	Morea	Bpaxia xpovu<dc, 47
1430 March 13 or 20, Sun.	Thessaloniki	Bpccxia xpovtxd:, 47
	without indication	Jean Anagnostes, 492-493
1438 February	Byzantine territory	'Ev0up.lp:sv.g, n. '16
1454 summer (18 days)	Ezencan	[S] Phrantzes, 379
1,457		Arakel 572



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