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The lost Roman calendars of ancient Macedonia

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As a result of the conquests of Alexander the Great, the lunisolar Macedonian calendar became the most widely circulated among all the lunisolar Greek calendars. However, despite its spread, two Roman calendars, generally unknown in the scientific community, were developed and used inside Macedonia itself during the Roman occupation of Greece. The older calendar used the so-called ‘Macedonian year’. This system started in 148 BC to emphasize the importance of the victory of the Roman general Quintus Caecilius Metellus Macedonicus against Pseudo-Philippus Andriscus, King of Macedonia. The newer calendrical system, which absorbed the older system, used the ‘Augustian or respectable year’ bearing its name from Octavius Augustus; its starting point was the date of the catalytic victory of Octavius over Marcus Antonius and Cleopatra at Actium (31 BC). The solar Octavian calendar survived until the sixth or seventh century in the Macedonian Territory.

Keywords: Roman calendars; Macedonia; Quintus Caecilius Metellus; Octavius; Actium

1. Introduction

The redaction of one calendar from the Babylonian epoch up to the creation of the Gregorian calendar, albeit clearly an astronomical process, highlights the importance of the merger of religious and political leadership.

The ancient Sumerian and Babylonian calendars had as their starting point the occurrence of a significant event or the ascent to the throne of an important ruler. This custom was mimicked by neighbouring cultures such as the Jews and the Egyptians. In Greece, city states employed lunisolar calendars with their starting point being the date of the first Olympics in 776 BC.

Octavius Augustus (30 BC–AD 14), as Pontifex Maximus, had under his jurisdiction the religious matters of Rome, which included the correct keeping of the calendar. He would intervene in this task to make relative adjustments and even to create new calendars. Thus, after his historic victory at Actium on 2 September 31 BC, Octavius created a new calendar in Macedonia which was given his name. As the legendary Romulus created the original lunar Roman calendar with its starting point being the founding of Rome in 753 BC, Octavius

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wanted his own Macedonian calendar to have the same import with the starting point being the date of his triumph in Actium to mark the pinnacle of the Roman Empire.

Rome's early expansion was very rapid and, by 146 BC, Greece had become nothing more than an eastern province. The assimilation of Greece resulted in the sanctioning of a new official calendar with novel monthly names but not much different in any other way from the pre-existing Julian solar calendar. The Roman governors in Greece used this calendar even though the local city states continued to use their lunisolar calendars. This situation persisted at least until the fourth century AD, when the Christian Church adopted the Julian solar calendar for tracking its holy days and the Macedonians gradually became Christians.

Thus, the creation of a new solar calendar by Octavius Augustus in Macedonia, for use by the Greek citizens there, was not in conflict with the official Julian calendar that was used by everyone in Rome. In fact, it facilitated the absorption of the older Roman lunisolar calendar that was created by the general Quintus Caecilius Metellus Macedonicus in 148 BC.

2. Historical background

On 2 September 31 BC, at Amvrakikos Gulf near the town of Actium in Epiros, Octavius Augustus' fleet engaged the combined naval force of Marcus Antonius (Mark Antony) and Queen Cleopatra. The resulting victory by Octavius was an important turning point for the Roman Empire (see p. 44 of [1]). He recognized its significance at the time and implemented four decrees to memorialize it throughout the passage of time.

- (i) To begin with, he built a huge monument at the location of his command post in Actium. It consisted of the broken figureheads from the bowsprits of the ships that he had captured. He dedicated the monument to Poseidon, god of the sea, and to Mars, god of war, who in his judgement helped to turn the battle in his favour. Octavius also sent figureheads to Rome where they were offered at the Temple of Divus Julius.
- (ii) Octavius followed the tradition of the Hellenistic emperors of founding a new city to commemorate his great victory. He named it Nicopolis, meaning 'city of victory'. This city was built in the narrowest section of the peninsula that separates the Amvrakikos Gulf from the Ionian Sea and thus had a very strategic location. In order to accelerate its development into the central city of the area, Octavius granted it several financial benefits including tax exemption for a number of years.

Before the founding of Nicopolis, the entire area of northwestern Greece (Epiros), and especially the surrounding area of Akarnania, was a portrait of tranquillity as the inhabitants had enough hardship trying to thrive off the barren land and to pay their taxes to Rome. Cities are not built overnight, and neither was Nicopolis. The city centre might have been constructed quickly by Roman veterans, but the populace was mainly Greek and they expanded the city limits by absorbing about 20 towns and villages that were within approximately 70 km from it. Amvrakia, Leukada, Strato and Kassopi were some of the larger towns that were forcibly annexed. The process was not a quiet expansion of Nicopolis' boundaries, but rather a forced uprooting and transfer of the inhabitants together with various buildings and monuments to populate and decorate the new city quickly.

The far-sighted Octavius did not exhibit any vengeance towards the inhabitants of Epiros who had generally been aligned with his rivals. Quite the contrary, by laying the foundation for Nicopolis, he gave life to a poor area of the Empire and finally left the Greek element to rule, thus presenting himself as a devoted patron to Greek culture and tradition.

Nicopolis was a very prominent symbol of the Roman victory at Actium and perpetuated the enormous significance of the battle in the evolution and consolidation of Pax Romana in the Middle East. Consequently, 'holy Nicopolis' became a lasting reminder to Roman citizens of the reckoning of two worlds and the commencement of a new era in history. The city continued to thrive for 250 years until the great economic depression of the third century AD. Then, the administrative and economic reforms of Diocletianus (AD 284) and later of Julian the Apostate (AD 361) again were very favourable to the city. During the barbarian period, however, Nicopolis was sacked and plundered by the Visigoths and their King Alaric (AD 397), by the Vandals (AD 474) and by the Ostrogoths led by Totila (AD 551). After the last of these assaults, the Byzantines fortified the central part of the city with high walls in the shape of an irregular hexagon; these survive to this day. Eventually, old Nicopolis succumbed to the Slavic invasion of Epiros (seventh century AD) that wiped out most of the Greek inhabitants. It is believed that the city was subsequently captured by the Arabs (ninth century AD), which was followed by its sacking by the Bulgarians (tenth century AD) and led to its final abandonment.

- (iii) Octavius also wanted to honour Apollo, his patron deity, whose temple was in Actium. The city had periodic athletic, musical and equestrian events known as *Actia*. He completely revised them and dedicated them henceforth in honour of his great victory, as they were praised by Strabo [2] and Cassius Dio [3], new games that occurred every 5 years on the day of the battle (2 September) from 28 BC onwards.

Strabo [2] wrote the whole story: 'Finally Augustus, seeing that the cities had utterly failed, settled what inhabitants were left in one city together – the city on this gulf which was called by him Nicopolis ('Victory City') and he so named it after the victory which he won in the naval battle before the mouth of the gulf over Antonius and Cleopatra the Queen of the Egyptians, who was also present at the fight. Nicopolis is populous, and its numbers are increasing daily, since it has not only a considerable territory and the adornment taken from the spoils of the battle, but also, in its suburbs, the thoroughly equipped sacred precinct – one part of it being in a sacred grove that contains a gymnasium and a stadium for the celebration of the quinquennial games, the other part being on the hill that is sacred to Apollo and lies above the grove. These games – the *Actia*, sacred to Actian Apollo – have been designated as Olympian, and they are superintended by the Lacedaemonians. The other settlements are dependencies of Nicopolis. In earlier times also the Actian Games were wont to be celebrated in honour of the god by the inhabitants of the surrounding country – games in which the prize was a wreath – but at the present time they have been set in greater honour by Caesar.'

This 5 year period was considered a standard measure of time and named (similar to the Olympiad) the Actiad. These celebratory games were held with the same professional regard as the Olympics. They were conducted in a stadium in Nicopolis, the city that was founded by Octavius especially for this purpose. The games became very famous, such that the winners at Actia earned titles equivalent to those of the Olympics.

As further evidence of their significance, it is noted that the Actia celebration was also held at other cities, such as Thessaloniki in northern Greece, Nikomedia and Hierapolis in Asia Minor, and even in Rome. Athletic games that were held at coinciding times in Kesaria and Heracleia of Pontos were named Isactii (equal to Actia).

Octavius left the care of the Actia to the Lacedaemonians, the only Greeks that received a place next to his side in the battle against Antony and Cleopatra. The Actia continued uninterrupted until AD 30 and saw a renewal during the pinnacle of the Byzantine period under Emperor Julian the Apostate. The games finally ceased to be celebrated after Julian's death in AD 363.

- (iv) For his fourth and final act to assure the perpetuation of his victory, Octavius Augustus decided to change the Macedonian lunisolar calendar to a simpler solar calendar, which would be named after him. The new calendar assimilated the older Roman calendar that had been created by general Quintus Caecilius Metellus Macedonicus in 148 BC for the perpetuation of his victory over Pseudo-Philippus of Adramytium in Macedonia.

3. The solar calendar of Augustus

The newer and more important Roman calendrical system was developed in Macedonia and Epiros during the early Roman Empire and utilized the so-called ‘year of Augustus’ bearing its name from the honourable address of Octavius as Augustus, meaning respectable.

The start of this calendrical system was the date of the catalytic victory of Octavius Augustus over Mark Antony and Cleopatra (the last queen of the Lagides Dynasty in Egypt) at Actium. This victory known as the ‘naval battle of Actium’ occurred on 2 September 31 BC, a date (close to the autumnal equinox) which became the starting point of the new solar calendrical system. The victory of Augustus in this naval battle paved the way to his monocracy. Consequently, the Roman emperor decreed the introduction of the ‘respectable year’ in order to mark the beginning of a new era.

Apparently, the Macedonians acted rather rapidly in honouring Octavius by inaugurating an ‘Augustian era’. The latter, like the older ‘Macedonian era’ of 148 BC, was only a Macedonian era, not found outside Macedonia proper (see p. 60 of [4]).

The Augustian calendar was a solar calendar of 365 days with an extra day every 4 years to account for solar motion. It was started on 2 September 31 BC, according to the proleptic Julian calendar, and contained the same 12 months of the ancient Macedonian calendar with different durations, since every month had 30 days. So, the solar year contained 360 days and an extra 5 days or, in leap years, 6 days (not measured in a month) at the year’s end dedicated to some Olympian deities. According to Parise (see pp. 8–9 of [5]), Seleucus Necator (fourth century BC), one of Alexander the Great’s generals, ruler of Syria, had established the same solar calendar in his empire; the Seleucid calendar was a solar calendar of 365 days with an extra day every 4 years to account for solar motion. It was started on 2 October 312 BC, according to the proleptic Julian calendar, and contained 12 months of 30 days each and an extra 5 days or, in leap years, 6 days at the year’s end (see p. 44 of [5]).

The aforementioned Roman calendrical systems were used in parallel or separately and served as a criterion for recent research to determine whether a territory belonged to Macedonia or not. However, we should point out that the names of the months remained the same as in the ancient Macedonian calendar. The two calendars started with the month ‘Dios’ (genitive form of Zeus), but they had a different chronological beginning: 148 BC for the ‘Macedonian year’ and 31 BC for the ‘respectable year’ (see p. 63 of [4]).

4. The names of the Macedonian months and the festivals

The names, duration and corresponding festivals of the ancient Macedonian months were as listed in table 1.

Dion, the famous ancient Macedonian sanctuary, is a town in Pieria prefecture, 440 km from Athens and 85 km from Thessaloniki. Among the ancient gods worshipped at Dion, the most important was Zeus. So, this ancient city was closely associated with Zeus (Jupiter = Zeus + pater), as its name implies. In ancient times, thousands of Macedonians would make a

Table 1. The names, durations and corresponding festivals of the ancient Macedonian months.

Macedonian name	Duration (days)
(1) Dios	30
(2) Apellaeus or Apellaios	29
(3) Audynaesus or Aidonaios	30
(4) Peritius	29
(5) Dystrus	30
(6) Xanthicus	29
(7) Artemisius	30
(8) Daesius	29
(9) Panaemus or Panemus	30
(10) Loous or Lous	29
(11) Gorpiaeus	30
(12) Hyperberetaeus	29

pilgrimage to this sacred place for the festivities and games dedicated to Zeus and the Muses, which grew in importance after the fifth century BC (see pp. 10–11 of [6]). Indeed, in the fifth century BC, Archelaos, King of Macedonia, inaugurated the feast of the Macedonian new year's day by introducing, in honour of Zeus, theatrical and athletic games historically known as 'en Dio Olympia' (The Olympia in Dion). Gradually, these games became the greatest festival in ancient Macedonia. Together with Zeus, the local deities of the nine Muses were worshiped and honoured: Clio, Euterpe, Thalia, Melpomene, Terpsichore, Erato, Polyhymnia, Urania and Calliope. They were considered as daughters of Zeus and Mnemosene and were born at Dion of Pieria at the foot of Mount Olympus, within nine successive nights. Therefore, they were also named the Olympiad Muses (see p. 3 of [7]).

Most of the Macedonian months (see p. 44 of [7]) can be found also in the calendars of other Greek cities. Dios, the first Macedonian month, is also in the Mycenaean calendar as well as those of various Greek territories inhabited by the Greek tribe of Aetolians (see p. 63 of [4]).

The name of the second month, Apellaeus (or Apellaios), has its origin in the famous festival called the 'Apellia'. So, Apellaeus was the second month in the Macedonian calendar, but it also belonged to the Aeolic and Doric calendars. This month was localized especially in the calendars of the cities of Sparta and Delphi, where it was also called the 'month of Apollo'. According to the calendar of the city of Epidaurus, Apellaeus was the last month of the year, while it also appeared as Apellaeon in the calendar of the Greek island of Tenos.

The name of the third Macedonian month, Audynaesus (Aidonaios or Aid(u)naios), is based on the name of Hades = Aidoneus (see p. 150 of [8]). Aidoneus or Aidonefs is the poetic-type name for the Greek word Aides or Hades [9].

Peritia was the name of a Greek festival – hence the name of the fourth Macedonian month Peritios.

According to Kalleris (see p. 150 of [8]), the origins of the names Dystrus, the fifth Macedonian month, and Gorpiaeus, the eleventh Macedonian month, are the subjects of inadequately supported etymologies.

Xanthicus was the sixth Macedonian month and its name originates in the Xanthica festival (see p. 63 of [4]).

The month Artemisius, the seventh month in the Macedonian calendar, is also reported in the calendars of Sparta and Delphi, while it appeared as Artemisios in Epidaurus, Rhodes and Sicily, Artemision in the island of Delos and Artemeision in the island of Chios, as one can verify from inscriptions found on these islands. Daesius, the eighth month, corresponding to the Attic month Thargelion [10], has also been reported in the calendar of the ancient city of

Sikyon [11]. However, the Sikyonian Daesius corresponded to the Attic month Anthesterion. Daesius, as Theodaesius or Theudaessius, is attributed to certain Doric regions as in Rhodes, Crete and Sicily. Theodaesia was a great Greek festival in honour of Theodaesius Dionysus.

Panaemus, Panemos or Panemus, the ninth month in the Macedonian calendar, is found also in the calendars of various Doric as well as Lokrian, Phokian and Aeolic cities (see p. 63 of [4]).

The etymology of the eleventh Macedonian month, Gorpiaeus, is obscure, as we have said already. The Macedonian Gorpiaeus seems to be related to Gorpeius, the month of an unknown calendar which, according to a lexicon, corresponded to November of the Julian calendar. According to *Hemerologium Florentinum*, the Macedonian Gorpiaeus had different correlations in the various calendars outside Macedonia and it seems to be related to Gorpheus, which corresponded to September in the Julian calendar (see pp. 334–335 of [12]).

Finally, the twelfth Macedonian month, Hyperberetaeus, has its origins in the known epithets of Zeus: Hyperairetes, Hyperberetes or Hyperpheretes (see p. 15 of [8]).

There is no clue referring to the way that the months were divided. It is certain that the Macedonians did not use the unknown Jewish ‘week’, i.e. the 7 day period. We may assume that, like the rest of the Greeks, they divided the month into three periods of 10 days each, with the last period consisting of either 10 or 9 days. Thus, the months lasted for 30 or 29 days alternately, giving a total of 354 days per year, since the month and hence the year were controlled by the lunar motion (see p. 44 of [5]). Consequently, this lunar calendar needed an intercalary month in order to be synchronized with the annual orbit of the Sun on the ecliptic. In other words, a thirteenth month had to be inserted in order to keep the lunar calendar in line with the solar-tropical year (i.e. with the four climatic seasons of the year). According to *The New Encyclopaedia Britannica Macropaedia* (see Vol. 3, p. 605, of [13]), ‘The Macedonians used this system as late as the 3rd century BC, although 25 lunar months amount to about 737 days, while two solar years count about 730 days’.

Therefore, a thirteenth month having 29 or 30 days was periodically inserted into the year to keep it in line with the apparent solar motion and the resulting agricultural cycle. It remains unknown at which specific time of the year this insertion was performed. It is said that it took place either after the sixth month or at the end of the year. Sometimes these month insertions were completely arbitrary and performed solely by royal decree. Thus, it is a historical fact that in 334 BC, when Alexander the Great was ready to start his military campaign to Asia, he arbitrarily inserted a second Artemisius just before Daesius. Plutarch [10] referred to the act of Alexander: ‘... For in the month of Daesius the kings of Macedonia were not wont to take the field with an army. This objection Alexander removed by bidding them call the month a second Artemisius.’ This act can be explained by the fact that the Macedonian kings considered Daesius as an unfortunate month for any kind of military operations.

There is a specific ancient inscription referring to the month Daesius, found at the village Tsepigovo, which reads as follows:

ΤΟΥ ΔΑΙΣΙΟΥ ΜΗΝΟΣ ΤΟΥ ΓΜΣ ΕΤΟΥΣ ΤΩΝ
ΠΕΡΙ ΒΑΡΟΛΡΟΝ ΦΙΛΙΠΠΟΥ ΕΝ ΔΕΡΡΙΟΠΩ ΠΟΛΙΤΑΡΧΩΝ
ΣΥΝΑΝΑΓΟΝΤΩΝ ΤΟ ΒΟΥΛΕΥΤΗΡΙΟΝ

This inscription refers to a meeting of some polemarchs with King Philippus and it was found at the Tsepigovo village, but its initial placing was on a hill at the right bank of the river Erigonus, in western Macedonia, where the ancient city of Styvera had flourished (see Vol. 20, p. 193, of [14]).

Many Greek religious festivals were tied to the Macedonian calendar. During the winter solstice the Macedonians, and other Greeks as well, celebrated planting and harvest festivals.

5. The lunisolar calendar of Quintus Caecilius Metellus Macedonicus

The older of these two Roman calendrical systems used the so-called ‘Macedonian year’. This system started in 148 BC (i.e. in the year the Roman general Quintus Caecilius Metellus Macedonicus subdued the revolution led by Pseudo-Philippus Andriscus) (see p. 63 of [4]). Andriscus had been an adventurer who proclaimed himself as the only son of King Perseus, son of King Philippos V. Hence, Andriscus took the name ‘Philippos VI’ and was crowned at Pella in 149 BC. Pseudo-Philippus Andriscus ruled over Macedonia for only 1 year during which he provoked a new military intervention against the Roman Empire. In the beginning, he managed to stir up the Macedonians and other Greeks against the Romans and his enthusiasm produced some minor victories in Thessaly. Unfortunately, the Roman general Quintus Caecilius Metellus Macedonicus and his legions won against the troops of Pseudo-Philippus in a decisive battle that took place in the autumn of 148 BC, thus putting an end to the false state of independence holding in Macedonia since King Philippos V (Second Macedonian War, 197 BC) (see Vol. 7, p. 209, of [15]). In order to emphasize the importance of his victory over the Macedonian king, the Roman general and later consul decreed the introduction of a ‘Macedonian year’ and defined as its start the respective year of his victory, so that the citizens of Macedonia would remember this fact and would not dare to stage another rebellion against Rome. After 146 BC, the whole territory of Greece was under Roman occupation.

6. Conclusion

The ‘Macedonian era’ is also known to historians and astronomers as the ‘provincial era’ and is associated with the organization of the new Roman province of Macedonia. This is the reason for calling this period the ‘Macedonian era’. It is also known that the province of Macedonia was composed of two ethnically and historically different parts: Macedonia and Illyria (see pp. 3 and 287 of [16]). This new era applies only to the first of these different regions and is therefore wrongly designated as the ‘provincial era’. According to Sakellariou (see p. 63 of [4]), ‘The results of recent research, however, suggest that the new era coincides with an act of gratitude commemorating the liberation of the country from the usurper and the restoration of the republic, which would, in turn, denote that the formation of the province should be dated after the autumn of 148 BC.’

The names of the months of the old lunisolar Macedonian calendar were kept the same in the calendar created by Quintus Caecilius Metellus Macedonicus and later in the calendar created by Octavius Augustus to replace it. Since they all started with the month Dios, it is often very difficult to determine whether certain dates relate to one calendar or another.

It is not known precisely how long Augustus’ solar calendar was maintained in Macedonia. In all likelihood, the spread of Christianity to the general Greek populace between AD 60 and 70, and later the adoption of the Julian calendar by the Church (fourth century AD) ultimately replaced the ‘year of Augustus’ as well as all other calendrical systems in Greece.

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References

- [1] F. Millar, *A Study of Cassius Dio* (Clarendon, Oxford, 1964), p. 44.
- [2] Strabo, *The Geography of Strabo*, Loeb Classical Library, with an English translation by H. L. Jones (Heinemann, London; Harvard University Press, Boston, Massachusetts, 1968), book VII, p. 6, C 325.
- [3] Cassius Dio, *Roman History*, Vols I–IX, Loeb Classical Library, with an English translation by E. Cary (Heinemann, London; Harvard University Press, Boston, Massachusetts, 1968), book LX, p. 1.
- [4] M.B. Sakellariou (Editor), *Macedonia, 4000 Years of Greek History and Civilisation*, Ekdotike Athinon, Athens, 1992, p. 60, 63 (in Greek).
- [5] F. Parise (Editor), *The Book of Calendars* (Facts on File, Library of Congress Cataloguing in Publication Data, New York, 1982), pp. 8–9 and 44.
- [6] D. Pantermales, *Dion – Archaeological Place and Museum* (Editions Adam, Athens, 1997), pp. 10–11 (in Greek).
- [7] M. Nystazopoulou-Pelekidou, *A Historical Survey of the 'Macedonian Question': On Scientific Truth about Macedonia* (Publications of the National Technical University of Athens, Athens, 1993), pp. 3–20.
- [8] I. Kalleris, *Les Anciens Macédoniens. Etude Linguistique et Historique*, Vols I and II (Collection de l'Institut Français d'Athènes, Athens, 1954–1975), pp. 15, 560–564 and 569–571.
- [9] Aeschylus, *Persians*, Vol. I, Loeb Classical Library, with an English translation by H. W. Smyth (Heinemann, London; Harvard University Press, Boston, Massachusetts, 1963), p. 650.
- [10] *Plutarch's Lives: Alexander*, Vol. VII, Loeb Classical Library, with an English translation by B. Perrin (Heinemann, London; Harvard University Press, Boston, Massachusetts, 1963), p. 16, 1. 75, 2. 76, 1.
- [11] *Plutarch's Lives: Aratus*, Vol. XI, Loeb Classical Library, with an English translation by B. Perrin (Heinemann, London; Harvard University Press, Boston, Massachusetts, 1963), p. 53, 4.
- [12] E. Theodossiou and E. Danezis, *The Odyssey of the Calendars – Searching for the Roots of Knowledge*, Vol. I (Diavlos, Athens, 1995), pp. 334–335 and 342–354 (in Greek).
- [13] *The New Encyclopaedia Britannica Macropaedia*, Vol. 3, 15th edition, Helen Hemingway Bentom, Chicago, Illinois, 1975, p. 605.
- [14] *Hydria Encyclopaedia, Ancient Macedonia (Daisios)*, Vol. 20 (Hydria Publications, Athens, 1978), p. 193 (in Greek).
- [15] *Helios Encyclopaedia, Ancient Macedonia*, Vol. 7 (Helios Publications, Athens, 1957), pp. 209–217 and 245–246 (in Greek).
- [16] St. Casson, *Macedonia, Thrace and Illyria – Their Relation to Greece from the Earliest Times down to the Time of Philip Son of Antypas* (Buma's Boekhuis NV, Grönigen, 1968), pp. 3 and 287.