ELECTRUM * Vol. 18
Kraków 2010

Tom Boiy*

Local and Imperial Dates at the Beginning of the Hellenistic Period

Dating and time-reckoning has always meant a lot more than simply keeping track of time. It is of course true that from very early times onwards all people, either pastoralists or agriculturalist, had to take the seasons – which means the solar cycle – into account for the simple reason of bare survival. Since a year is far too long for many practical arrangements the omnipresence of the moon provided a perfect solution; the moon's phases turned out to be an ideal length to divide one year into smaller units. The integration of a lunar cycle into the solar system is not self-evident though and the astronomical knowledge of people can often be judged by the way they tried to solve this dilemma. Still, a lot more factors come into play when time-reckoning and dating systems come into being. Both in the calendar – the division of every individual year – and in year-counting – some kind of superstructure for several years – religious, cultic, ideological and political elements played an important role. Since the sun, the stars and the moon were regularly worshipped in most religions in Antiquity, their cycles often determined religious festivals and other cultic events and therefore the calendar was closely linked with religion.[1] Ideology, especially royal ideology, is found mainly in the system of year-counting.[2] Because dates are omnipresent in all sorts of texts and also in all sorts of undocumented situations of daily life, it is a perfect way of communicating a certain message or stressing one's name and authority. In an eponym system the name(s) of the (yearly changing) highest state official(s) is immortalised by linking his or their name to that specific year. In a monarchy the king could link his name and regnal years to the date formula or, in a year-name system as was the case in Babylonia until the

* The author is a postdoctoral researcher of the University Fund, Katholieke Universiteit Leuven. The article presents results of the work package on history and chronology from the IAP VI/34 (Interuniversity Attraction Poles Programme – Belgian State – Belgian Science Policy). My sincere thanks are due to C. Bennett for his comments on a draft of this article.

[1] Often months were named after religious festivals taking place at that time of the year, for examples from Greece see e.g. Parke 1977: 29, 53, 97 and 107 and Trümpy 1997: 1; for examples from Babylonia see Cohen, 1993: 305–346.

[2] Not exclusively, see e.g. the renaming of Roman months after Roman emperors. Only July and August survived as a remnant of this practice in our Gregorian calendar today (for other months named after Roman emperors, see Richards 1998: 216).

thirteenth century BC,[3] make sure that one of his major achievements was mentioned in the date formula of that year. Since religion is not apt to undergo rapid changes and it was more connected to the calendrical system than that of year-counting, the calendar will not be changed so easily. Ideological messages on the other hand must be ready to answer to every political change and they will transform far more easily. Consequently, the year-counting system can undergo rapid transformation, even several ones within the scope of a few years as we will see below.

Several year-counting systems have been used in the Ancient Near East and Antiquity: era's, regnal years, year names and eponyms can be encountered both on a very local basis and over quite an extended area. Some of them lasted for centuries while others barely survived their initiation. There may have been even more than one year-counting system operating at the same time at the same place. Sometimes both systems functioned simultaneously; at other times one of the possible systems is preferred for a specific reason.[4] Alternatively, a second year-counting system could be a local one that was added to the general one, e.g. the name (and sometimes years in function) of a provincial governor added to the name and regnal years of the king. Yet another situation occurred when in a certain part of the empire a local system is used instead of the general one. Since also national/local ideology is involved in year-counting systems, this situation often reflects some kind of legal difference between this location and the rest of the empire. An example can be found in Babylonia when it was a part of the Neo-Assyrian empire during the reign of Tiglatpileser III. Instead of absorbing Babylonia into the empire as an Assyrian province, as Tiglatpileser did with the Aramaic kingdoms in Syria, he nominally respected Babylonian independence and he introduced a personal union; he presented himself as Babylonian king using the name Pulu. Documents in Babylonia were therefore dated to a different reign of the same king with a different name.

Although the calendar was for religious reasons more archaic and conservative, there have also been successful and unsuccessful attempts to make, for practical reasons, a uniform calendar[5] or to adapt to another system because it was far superior to its own.[6]

At periods when a local (or more than one) and an imperial year-counting system coexisted, the scribe of a document theoretically had several options: a local date, the imperial date or a combination of both. It goes without saying that for today's historians the last option is preferred. If only one of the systems was known previously, the document can be dated exactly and, in addition, the equation might allow us to reconstruct the other system. If on the other hand only a local system is used and we know for certain that an imperial system is used for other parts of the empire, it might give us some clues concerning the legal position of the location where the document was written. This is also true for the other way around: a document bearing an imperial date only that was written in an empire for which we know that in some locations a local system was in use (only a local system or in combination with the imperial system).

[3] On the beginnings of the year-counting system on the basis of regnal years during the Kassite period see Brinkman 1976: 397–414, esp. 403. For the year name system in the Old Babylonian period see now Horsnell 1999.

[4] For the use of the different calendars in Ptolemaic Egypt, see e.g. Samuel 1962: 78–91 and 101–105 and Pestman 1981: 215–217.

[5] For the Ur Calendar as Reichskalender during the Ur III-period and later see Cohen 1993: 136.

[6] For the adoption of the Babylonian system in the Macedonian calendar, see Samuel 1972: 140–141.

It is time to come to the point. In this contribution I would like to address the problems of the vast empire of Alexander the Great and its successor states and the ways of dating and time-reckoning in several parts of this world empire.

When Alexander replaced his father Philip as Macedonian king he followed in the footsteps of the Macedonian royal family. He started his Macedonian regnal years from his accession to the throne in Dios,[7] but because of the limited number of Macedonian inscriptions from the time before Alexander the Great we have no idea in how far he followed Macedonian traditions here.[8]

For the Greek city states, assembled in a league under the *hegemonia* of the Macedonian king, Alexander's accession did not make any difference because they all used their own local year-counting systems. When Alexander started to conquer the Achaemenid empire after crossing the Hellespont and when he presented himself as the successor to the Achaemenid dynasty, this did not affect the year-counting system there either; also in the Achaemenid empire documents were dated to the regnal years of the king in combination with a local calendar.[9] Sometimes not only the name of the king, but also that of his satrap of the province where the text was composed, was added. In addition, there were also local year-counting systems in use within the Achaemenid empire that were applied without any reference to the imperial date. In Asia Minor and Phoenicia e.g. cities were allowed local autonomy and a local year-counting system was often a way of showing this particular legal position. A closer look at the Phoenician cities during the Achaemenid period e.g. clearly reveals that most of them had a king as local ruler and they dated their documents by the regnal years of this king.[10] In Asia Minor on the other hand there is for instance the use of

[7] 24 Dios according to Grzybek (1990: 25–27). He based this date on a comment by Josephus *Ant.* 19.95 that Emperor Caligula was murdered on the ninth day before the Kalends of February (24 January), the same day as Alexander's father Philip. January was out of the question as a date for Philip's death because the time of death of Alexander the Great and the length of his reign is known. Therefore Grzybek interpreted „the same day" as the same day of the month and dated Philip's death to 24 Dios. M. Passehl (http://groups.yahoo.com/group/ Hellenistica/message/1103) noted that „the ninth day before the Kalends" was identified with the first day of the month in the calendar of the Asian cities after the Roman calendrical reform. This calendar started on Augustus' birthday, 23 September or the ninth day before the Kalends of October. If Grzybek's argument is followed, the „same day" as nine days before the Kalends (the twenty-fourth day of the month in the Roman calendar), must be interpreted as the first day of the month in the Macedonian calendar, in the case of Philip's death 1 Dios. On the basis of this new date for Philip's death and Alexander's accession to the throne Bennett suggested the opportunity (Bennett, in preparation) to reconcile the different views on the start of the Macedonian year. Non-Ptolemaicist have always assumed that 1 Dios was the beginning of the Macedonian year, whereas Ptolemaicists claimed that before Ptolemy III the anniversary of the king's accession to the throne determined the beginning of the new year. In fact we don't have any evidence older than the Hellenistic period and both groups project the situation they have found in documents from the Hellenistic period into the past as an ancestral tradition. If 1 Dios is indeed the date of Alexander's accession to the throne, both views can be reconciled according to Bennett (in preparation). Until Alexander the Great the Macedonian year started on the accession day of the king. In Egypt this habit continued afterwards, but in the other parts of Alexander's empire 1 Dios, Alexander's accession date, was generally accepted as the beginning of the Macedonian year, regardless of the accession dates of later rulers.

[8] The so-called Oleveni inscription is dated to the sixteenth year of king Philip, but the identification with Alexander's father Philip II is uncertain (Hatzopoulos 1995 and 1996: 24–25; *contra*: Badian 1989: 68 n. 24 and Grzybek 1990: 24 and n. 15).

[9] There was no unified imperial calendar in the Achaemenid empire. Therefore every region used its own local calendar and, because the New Year's day was not the same in every dating system, small (max. 1 year) differences in the year-counting could occur.

[10] See e.g. KAI 14 for the 14th year of king Eshmunazor (II), king of Sidon.

the stephanophoros as eponym in Miletus. We know the Milesian chronological system quite well thanks to a series of inscriptions containing parts of the list of Milesian stephanophoroi. The combination of two large fragments (*I.Milet* I 3 122–123) e.g. presents the complete list of stephanophoroi in Miletus from 525/524 until 260/259 BC.

Since the Achaemenid imperial year-counting system matches the Macedonian one, the imperial year-counting system during Alexander's lifetime is in theory quite simple: Alexander's regnal years. The problem is to find out when Alexander's reign started exactly for the different regions. In Macedonia, Alexander replaced his father Philip in 336 BC. In 334 BC he invaded the Achaemenid empire, he defeated the Persian army at the river Granikos and he conquered Asia Minor. In 333 BC he defeated the Persian king Darius III at Issos and he conquered Phoenicia. In 332 BC he added Egypt to his empire and in 331 BC he defeated Darius III decisively at Gaugamela and he conquered Babylonia. Whereas the starting point is clear for Macedonia (there is no reason to doubt that the Macedonian year-counting system started in 336 BC with Alexander's accession to the throne), it might be different for the regions of the Achaemenid empire conquered by Alexander. Instead of one uniform year-counting system it is theoretically possible, and indeed it has been suggested for several regions, that they all started Alexander's first regnal year from the moment he conquered the region, either on New Year's day before or after that event depending on local traditions.[11] The second possibility is that there was only one uniform year-counting system using the regnal years of king Alexander for the whole empire, which would probably mean that Alexander's Macedonian regnal years were used.[12] *Syll*^{3} 302, a private document from Gambreion and the only Greek inscription with an imperial date from the reign of Alexander the Great, does not really solve this dilemma. The text is dated AlexIII.11, a date that is both possible for Alexander's Macedonian years (11 = 326/325 BC) and for his regnal years in Asia Minor (11 = 324/323 BC). The local addition to the imperial date does not make it any clearer; the name of the prytan (Isagoras) was hitherto unknown and can therefore not be dated and the occurrence of the satrap Menander does not help either because no satrapal years are mentioned and Menander was both in 326/325 and 324/323 BC satrap of Lydia. Since Alexander's conquests in the Near East were vast and included different regions and peoples, it is necessary though to have a look at a wide variation of available documentation.

[11] In Babylonia the first year of the new king started on New Year's day following his accession to the throne. The rest of the unfinished year of the previous king, or the period between the accession of the new king and the following New Year's day was called Accession Year (*šanat rēš šarrūti*). This is called postdatation. In Egypt predatation was used for most of its history: the period between the accession of the new king and the following New Year was the first year of the new king and therefore his reign started in a king list (virtually) on New Year's day before his accession (see Depuydt 1995a: 113).

For the 27th and 31st dynasty, the periods of Achaemenid rule, a „predating of postdating" system was used in Egyptian documents according to Depuydt (1995b and 2006: 461–462) with the Babylonian New Year as central point of reference: the king's first regnal year started on Babylonian New Year following the death of the previous king and his second years started on the Egyptian New Year following Babylonian New Year. This way the virtual beginning of the king's first year in a king list is a predating of the postdated Babylonian system comparable to the system used by Ptolemy in the Royal Canon (see Depuydt 1995a).

Babylonian New Year as central point of reference in a „predating of postdating" system for Ptolemy's Royal Canon is logical since Ptolemy used Babylonian data from Nabonassar, the Babylonian king Nabû-nāsir, until Alexander the Great. For the local Egyptian documents during the Achaemenid period on the other hand the central importance of Babylonian New Year is rather strange.

[12] A situation in which Alexander started to date in his own name in Macedonia in 336 BC and he started all over again as heir of the Achaemenid dynasty in 333 or 331 BC after he defeated Darius III is not very probable.

First, let's have a look at the Babylonian cuneiform documentation during Alexander's lifetime. It has been known for a long time that the Babylonians replaced Darius' III regnal years in the dating formulas of the cuneiform tablets by the regnal years of Alexander the Great in combination with the traditional Babylonian calendar. The first to study Alexander's reign on the basis of the cuneiform documentation was Oppert (1898). He concluded on the basis of four tablets preserved in the British Museum that the Babylonians started AlexIII.01 on the New Year's day following Alexander's conquest of Babylonia (or spring 330 BC; Oppert 1898: 418 and n. 1). Since Alexander died in June 323 BC AlexIII.08 should have stopped after two months, but because a later month is mentioned in one of the texts from British Museum tablets studied by Oppert, one text dates by AlexIII.09 and the last one even mentions AlexIII.10, Oppert presumed that the Babylonians dated posthumously by Alexander the Great and he calls this year-counting system an Alexander era. In the meantime several other tablets dated to Alexander the Great have been identified and we now know for certain that not only AlexIII.09–10 was used, but also AlexIII.11, AlexIII.12 and AlexIII.13 appear in the dating formulas of cuneiform documents. On the other hand, although the documentation from the reign of Alexander has increased a lot since Oppert's contribution in 1898, not a single text from the period AlexIII.01–06 has been found until now, whereas the years AlexIII.07–13 are all represented by at least one text for every single year (see Boiy 2007b: 24) and the very beginning of Alexander's reign in Babylonia is attested with the so-called Accession Year.[13] The complete absence of AlexIII.01–06 means that according to Oppert's theory there is almost no cuneiform tablet from Alexander's lifetime mentioning Alexander in the date formula and practically all texts are to be situated after Alexander's death when the Babylonians dated according to Oppert with an Alexander era. The solution to this problem was furnished by AD 5 66 (= *LBAT* 1397), an astronomical cuneiform tablet focusing on observations of the planet Jupiter from ArtII.43 until AlexIII.12 since every single year from 362/361 BC until 324/323 BC was mentioned in AD 5 66 in the same year-counting system as the one used in the contemporary administrative and legal documents. Luckily, the passage that deals with the years when the transition from the last Achaemenid ruler to Alexander the Great took place is completely preserved; in AD 5 66: V 16–25 it is clear that DarIII.05 was not followed by AlexIII.01, but AlexIII.07. AlexIII.01 was therefore 336/335 BC or Alexander's first regnal year in Macedonia. This means that also in Babylonia Alexander's Macedonian regnal years were used and that AlexIII.01–06 are not attested because they simply never existed in Babylonia.[14]

The story of the research to the year-counting system during Alexander's lifetime in Lydian inscriptions is parallel to that of the Babylonian evidence. Two Lydian inscriptions (LW 3 and 50) mention Alexander in combination with the year numbers 5 (LW 3) and 12 (LW 50). Haussoulier (1924: 71), the original editor of LW 50, referred to Oppert's theory for the Babylonian sources and in analogy to it he dated LW 3 to 330/329 BC and LW 50 to 323/322 BC. This means that the Lydians started with AlexIII.01 in 334/333 BC after Alexander defeated the Persian army at the Granikos and conquered Lydia immediately af-

[13] The last days or months of the last year of a dead king were indicated as the Accession Year (*šanat rēš šarrūti*) of the new king. It was not until the next new year that the new king's first year started.

[14] The period from October 331 until April 330 BC could have been dated AlexIII.06, but apparently the Babylonians preferred to use the traditional system of Accession Year when a new king ascended to the throne. From the following New Year's day onwards the Macedonian regnal years were used.

It has also been argued in the past that two dating systems were in use during Alexander's lifetime (one by his Babylonian years and another by his Macedonian years, see Parker/Dubberstein 1956: 19).

terwards. Another result of this chronological reconstruction was that LW 50 probably was a posthumous date and this is explained by the use of the same Alexander Era proposed by Oppert for Babylonia. The dates proposed by Haussoullier in 1924 have never been challenged by later studies of the Lydian inscriptions. The additional information available for Babylonia in the meantime makes it clear that this explanation can not be accepted anymore and we therefore propose a new analogy with the Babylonian sources and to date the Lydian inscriptions as we do the Babylonian tablets today: according to Alexander's Macedonian regnal years.[15] This means that LW 3 (AlexIII.05) is to be dated in 332/331 BC and LW 50 (AlexIII.12) in 325/324 BC. AlexIII.05 or 332/331 BC, which was impossible for Babylonia because at that time Darius III was still ruling this region, is no problem for Lydia because Alexander had already conquered Lydia in 334 BC.

As far as the Aramaic documents are concerned several new documents have come to light recently. We first have to pay attention to the large amount of Aramaic ostraca originating from Idumaea that appeared on the antiquities market recently. They were all composed in the Late Achaemenid or early Hellenistic period and probably belong to the administration of a royal storehouse in Maqqedah (Khirbet el-Kōm; see Lemaire 1999: 1, 21). As for the dating the name of the month is normally indicated and the regnal year also appears regularly. The name of the king on the other hand is only in a minority of these texts available; probably because of the very temporary character of ostraca the scribe did not feel the need to indicate the name of the ruling king since it was all too self-evident for them. The name of king Alexander does appear from time to time and the regnal years connected to this name are 2 and 5. The first two volumes of these Idumaean ostraca were published almost simultaneously in 1996. Eph^{c}al/Naveh (1996) interpreted „king Alexander" as Alexander IV, the son of Alexander the Great, on the basis of a comparison with the contemporary Babylonian evidence. Lemaire, the editor of the other volume (Lemaire 1996) on the other hand preferred to identify „king Alexander" with Alexander the Great himself. He introduced a local year-counting system for Palestine starting with AlexIII.01 from 332/331 BC onwards, when Alexander the Great conquered the region after the battle at Issos and when he was on his way to Egypt.[16] Since only Alex.02 and Alex.05 are attested, this local theory does not mean that posthumous dates were introduced as was the case for the theory of local year-counting systems in Babylonia and Lydia above. To justify his theory Lemaire invoked an analogy with Egyptian sources where AlexIII.01 was also introduced from the moment Alexander the Great conquered the country.

Another new Aramaic source concerning the reign of Alexander also appeared on the antiquities market recently under the form of a leather document originating from Bactria (Afghanistan). This find has not yet been fully published, but a preliminary description shows a partial photograph and contains a partial translation of the text dated to Alexander (Shaked 2004: 17 and 53). The text mentions the date Alex.07.03.15. The editor interprets this date as 9 June 324 BC and he explains that this conversion was made on the basis of the tables in Parker/Dubberstein (1956). This means that he placed Alex.01 in 330/329 BC, the year after Alexander defeated Darius III at Gaugamela. It has to be stressed again here that at the time Parker and Dubberstein compiled their tables it was accepted that the Babylonians dated in two different ways during Alexander's lifetime (according to his Macedonian regnal years and his Babylonian regnal years, see Parker/Dubberstein 1956: 19). Alexander's

[15] For a complete overview of the year-counting system in Lydian sources, see Boiy 2005.
[16] On local year-counting, see below.

Macedonian regnal years are indeed difficult to apply here: AlexIII.07.03.15 was in this case 15 June 330 BC when Alexander was still in Persia and a long way from Bactria. One could argue that with the last Persian resistance broken it was clear that there was only one possible outcome for Bactria. Starting to date by Alexander in these circumstances, before Alexander had reached the region and could exert any real power and with either Darius III or his murderer Bessos = Artaxerxes V as Achaemenid king closer at hand, definitely was a risky business. In this light it is quite logical for Shaked to have opted for the second possibility, Alexander's Babylonian regnal years. We know in the meantime that the Babylonians did not use Alexander's Babylonian regnal years during Alexander's lifetime and we therefore propose to interpret Alex.07.03.15 as AlexIV.07.03.15 or 3 July 310 BC. The political history of Bactria of that period is almost completely unknown. We do know that Seleucus turned to the east in autumn 311 BC after his reconquest of Babylonia in spring 311 BC and that he conquered Susiane, Media and some surrounding regions. Even though Diodor (20.53.4) mentions that Seleucus ruled the Upper Satrapies (which include Bactria) before he adopted the royal title (305 BC), it is unlikely that he got as far as Bactria in 310 BC: Diodor says that he „recently" conquered the Upper Satrapies before he adopted the royal title and in 310 BC Seleucus had to cope with the Antigonid attempts to retake Babylonia. If Seleucus had already been in power in Bactria in 310 BC the use of Alexander IV in the date formulas would have been self-evident since he also re-introduced Alexander IV in the date formulas in Babylonia. But also for another satrap[17] in Bactria, there would be no reason not to use the regnal years of the one remaining official king of the empire in the date formulas.

The Egyptian documents have already been mentioned since Lemaire used them as an analogy for his dating theory. Therefore, it has become time to have a closer look at the demotic documentation concerning the reign of Alexander the Great. Although the number of preserved tablets dating to the reign of Alexander the Great is not high (see Depauw *et.al*. 2008: 27–28), it is clear from *P.Hawara* OI 2, dated AlexIII.01, and *P.Schreibertrad.* 1, dated AlexIII.03, that a conversion using Alexander's Macedonian regnal years can not be correct here. During his first Macedonian regnal year Alexander had not yet set foot in Asia and Alexander's third Macedonian regnal year was 334/333 BC, when he defeated the Persian army for the first time at the Granikos and conquered Asia Minor. At this time Egypt was still firmly in Achaemenid hands and there was no reason at all for the Egyptians to switch rulers in the date formulas of demotic documents. It would take Alexander another two years before he was able to add Egypt to his empire. We are therefore compelled to accept a local computus in Egypt starting on the moment Alexander conquered Egypt. A more or less similar situation is discernable in the Egyptian documentation 25 years later. When Ptolemy followed the example of Antigonus Monophthalmus and decided to take the royal title himself, the date formulas of the Greek and demotic documents reflected this change. In the demotic documents the count by king Alexander IV stopped and was replaced by the first year of king Ptolemy. In the Greek documents, however, a different method was used: before Ptolemy's coronation the date formulas mentioned the regnal year of king Alexander IV and the satrapal year of Ptolemy[18] and afterwards the name of Alexander was removed and only the years of Ptolemy were left. The years of Ptolemy did not start

[17] In 315 BC Stasanor was still Bactrian satrap. It is unknown if he still was in function or still lived in 310 BC (for this period see e.g. Sidky 2000: 116–117).

[18] The earliest Greek papyrus is *P.Eleph*. 1 dated to the seventh year of Alexander IV and the fourteenth satrapal year of Ptolemy.

all over again from the moment he adopted the royal title (as in the demotic documents, „regnal" years in the real sense of the word), but they simply continued counting satrapal years. Analogous to the Macedonian habit to start the Macedonian regnal year on the day of the king's accession,[19] the date of Alexander's death was chosen as starting point of Ptolemy's „rule" in Egypt.[20] Sadly enough there are no Greek papyri preserved for the reign of Alexander the Great, but if we project the situation attested for Ptolemy I to the period when Alexander the Great arrived in Egypt, the different dates in the demotic documents are more understandable. If Greek documents were preserved, they might date differently as was the case for Ptolemy I. It is therefore possible that the Greek documents counted in the same way as in the rest of Alexander's empire, by Alexander's Macedonian regnal years. An answer to the question why the demotic documents had a different year-counting system compared to all other parts of the Alexandrian empire might be found in Egyptian religion and habits and Alexander's interest for it. Although it is not explicitly attested,[21] there may have been festivities for Alexander's coronation as pharaoh in Memphis. Although Alexander clearly followed in the footsteps of the Achaemenid rulers both before and after the conquest of Egypt, the Egyptians probably regarded Alexander in the first place as the new pharaoh and an official coronation in Egyptian style would have been the logical moment to start a pharaoh's rule. With the episode at the Siwa oasis, where Alexander was proclaimed Ammon's son, in mind, it is quite well possible that Alexander was pleased with the treatment by the Egyptians and that he did not object to a different year-counting system in Egypt mentioning his pharaonic regnal years.[22]

When Alexander died in Babylon on 11 June 323 BC his empire was not prepared for such a sudden change. Since there was no apparent heir, Alexander's generals immediately started to deliberate over the political consequences. Because of the different opinions in the group of generals and the pressure and meddling of the common soldiers these deliberations probably took some time. Eventually, it was agreed to give the royal title to two candidates jointly: Alexander's feeble-minded brother Arrhidaeus – who received the dynastic name Philip at that occasion – and Alexander's still unborn child with his wife Roxane – under the condition that it would be a son. The baby turned out to be a son and he received his father's name Alexander (IV). Because none of the royals was capable of ruling, a college of guardians was appointed. Other important generals received a part of Alexander's empire where they were allowed to rule as a satrap. This is at least how the classical authors (especially Curt. 10.19–31[23]) relate it to us. If we have a look at the year-counting system in use in the date formulas of the contemporary text on the other hand, it is clear that all Eastern sources – Akkadian cuneiform tablets,

[19] See above n. 7 on the different views of Ptolemaicists and non-Ptolemaicists on this matter and a possible reconciliation of both views by Bennett.

[20] 29 Daisios according to the Macedonian calendar. Ptolemy was allotted the Egyptian satrapy during the division at Babylon following Alexander's death.

[21] Only in the unreliable Alexander novel by Pseudo-Callisthenes (1.34.1) Egyptian coronation festivities are mentioned (Bosworth 1988: 70–71).

[22] The chronological system in Egypt immediately after the conquest by the Achaemenid king Cambyses is uncertain. According to the „classical" explanation a double system was in use, either by the Persian regnal years of Cambyses or by his Egyptian years as pharaoh (see e.g. Depauw 2008: 9–10). This interpretation has been contested by Depuydt (1996) and especially Devauchelle (1998), who argued that only an Egyptian system by Cambyses' years as pharaoh was used. If Devauchelle is right, this would offer another parallel to the chronological system used by the Egyptians after the conquest by Alexander the Great.

[23] Other classical sources are: Diod. 18.2–3; Arrian, *FGrH* 156 F1; App. *Syr.* 52, and Just. 13.2–4.

demotic papyri and Aramaic ostraca[24] – only mention king Philip as immediate successor of Alexander the Great, whereas Alexander's son Alexander IV never appears in the documentation during the years immediately following Alexander's death. Apart from the fact that Alexander's name was replaced by Philip and that the counting started all over again nothing changed to the imperial year-counting system of regnal years. Only in Babylonia a minor change can be discerned: whereas in the past the remaining months of the year after the death of a king were called the Accession Year of the new king until his year 1 started on the following New Year,[25] Phil.01 started immediately when Alexander died (or, more exactly, when his generals agreed to have Philip as their king) and the following New Year Phil.02 started.[26] In October 317 BC king Philip was murdered by Olympias, the politically ambitious mother of Alexander the Great. Also this event did not result immediately in other date formulas for the documents: in Egypt demotic documents were still dated by Philip until at least Hathyr Phil.08 (January/February 316 BC; P. Eheverträge, p. 144 n° 2D) and in Babylonia the posthumous dates lasted even a year until Phil.08.07.18 (= 9 November 316 BC; AION Suppl. 77, 79). Especially for Babylonia this can not have been caused by the delay of the message of Philip's death from Macedonia to Babylonia. There must have been political reasons to keep dating to a long deceased king. It was after all not difficult to find out the name of the new king that had to be used in the date formulas because Alexander IV was already an official (minor) king of the empire since he was born in 323 BC. In Egypt the first attested document dated to Alexander IV is P.dem.Loeb 27, dated 2 Mecheir AlexIV.01 (10 April 316 BC). For Babylonia no exact date can be given when AlexIV.01 replaced Phil.08 because the only document dated to AlexIV.01 has no fully preserved date. In the Idumaean documentation no ostracon from AlexIV.01 is preserved. These examples show that also during the reign of Alexander IV an imperial dating system for the whole empire was in use. If we transpose these dates to our chronological framework of the Julian calendar in the BC – era AlexIV.01 equals 317/316 BC for the demotic documents and 316/315 BC for the Babylonian sources. This does not mean that Alexander's reign started one year earlier in Egypt, but the difference is only caused by the use of a different calendar in Egypt and Babylonia: New Year of the civil Egyptian calendar was at that time in December whereas the luni-solar Babylonian calendar always had a spring New Year (28 March in 316 BC). The difference was therefore only four months. When Alexander in his turn was murdered (probably in 310 or 309 BC), the date formulas again failed to react immediately. In this case it was not clear who should be named in the date formulas because the Argead dynasty had come to an end after Alexander's death. In addition, Cassander, Alexander's murderer, first tried to hide the murder, but even when it was widely known the date formulas still kept mentioning the

[24] In contrast to a few Greek inscriptions (see Habicht 1973: 371–372).

[25] This system is attested until Alexander the Great, see Boiy 2002.

[26] The conversion Phil.01 = 323/322 BC is not clear from the contemporary documents because one could argue that documents bearing Philip's Accession Year are not attested yet and that Phil.01 must be dated to the following year 322/321 BC, as was the normal Babylonian practice. Astronomical tables mentioning every single year for longer periods of time prove that AlexIII.13 was followed by Phil.01. In addition, the historical circumstances described in the Successor's chronicle ABC 10, make the same conversion necessary. Last but not least, the astronomical diary AD 1 -321 ('rev. 23') for the year Phil.02 mentions a solar eclipse on Phil.02.06.28 (26 September 322 BC). This observation is in complete agreement with modern computations and therefore Phil.01 must have been 323/322 BC (Anson 2005a).

regnal years of Alexander IV as if nothing happened. It was not until 306 BC that Antigonus Monophthalmus adopted the royal title (for himself and for his son) after his son Demetrius defeated the Ptolemaic fleet at Salamis. Soon afterwards the other Hellenistic rulers Lysimachus, Seleucus and Ptolemy followed his example. The unified Alexander empire was now forever a thing of the past (though some of his successors still dreamed of a unified empire under their rule, especially Antigonus, but also Ptolemy) and the imperial year-counting system was replaced by a year-counting system with the name of the new dynasts.[27]

With the emergence of several Hellenistic kingdoms in the area once conquered by Alexander and united under his rule, our overview of early Hellenistic imperial dating systems might have come to an end if it was not for Antigonus Monophthalmus. He was not only the first to adopt the royal title but some ten years earlier he had already usurped another royal prerogative: he replaced Alexander's name in the date formulas with his own (and sometimes with his title „strategos"), in the parts of the Alexander empire under his direct or indirect influence: from Asia Minor over Syria, Palestine, Babylonia all the way to Afghanistan. Only for Babylonia and Idumaea do we have information about this change. For Babylonia the last tablet dated to Alexander IV is CT 49, 13, dated AlexIV.02.03 (June/July 315 BC). The oldest tablet dated to Antigonus (CT 49, 34) originates from Borsippa and is dated Antig.03.09 (December/January 315/314 BC).[28] The change in the date formulas of the Babylonian documents must therefore have taken place between June/July 315 and December/January 315/314 BC. The Aramaic ostraca from Idumaea provide a much closer date: in July 315 BC the change from Alexander IV to Antigonus took place.[29] Even if the ostraca naming Alexander should be dated earlier (during the reign of Alexander the Great, see above for Lemaire's po-

[27] Antigonus had already started before with a new year-counting system (see below). On the moment of his (and his son's) adoption of the royal title, he probably simply added Demetrius' name to his years in the date formula. Grzybek (1993) proposed this procedure by interpreting the 27th year of king Demetrius, the date of a Greek inscription from Beroia, as 291/290 BC.

As shown above the regnal years of Ptolemy I were counted as a continuation of his satrapal years in the Greek documents. Demotic documents on the other hand mention Ptolemy's „royal years" as pharaoh.

Seleucus' years did not start all over again from the moment he adopted the royal title either. Although some texts mention 305/304 BC as his first year as king, the date formulas antedated his rule from his return to Babylonia in 311 BC. It is therefore no satrapal year-counting system either (as for Ptolemy I) because he had already been satrap in Babylonia before from 320 until 315 BC. In the date formulas from documents dated to the period 311–305 BC normally king Alexander IV appears alone, but in two astronomical diaries also Seleucus is mentioned next to Alexander with the title „strategos" (^{lú}gal eren$_2$.meš; AD 1 -309: 'rev. 11' and U.E. 1 and AD 1 -308: 'rev. 17' and U.E. 1). Since Seleucus appears here with the same title as Antigonus Monophthalmus used in the dates by his own name, he probably imitated his rival whom he ousted in 311 BC. It is not completely camparable to Antigonus' method of dating, since it is in these two cases only and since the regnal years of king Alexander IV are prominently present. It is not comparable to the date formula in P. Eleph. 1 (see n. 18) for Alexander IV and Ptolemy either since no year number for the strategos Seleucus is mentioned in the date formulas of the astronomical diaries. For this reason we prefer to interpret Seleucus' count as an antedating from the moment he returned to Babylonia in 311 BC (and took the title of strategos?) whereas Antigonus Monophthalmus and Ptolemy continued to count their years as strategos and satrap respectively (see also van der Spek in print).

[28] Antigonus did not start to count with Antig.01. By starting with Antig.03 he probably wanted to link his antedated reign to the real moment of Philip Arrhidaeus' death. Because AlexIV.01 replaced Philip's posthumous year Phil.01, it was AlexIV.02 that was replaced by Antig.03.

[29] There are ostraca dated to Alexander IV from 7, 10 and 21 July and dated to Antigonus from 20 July and 7 and 19 August.

sition), the Antigonus texts still prove that from at least 20 July onwards the name of Antigonus was used in the date formulas in Idumaea. Thanks to these ostraca naming Antigonus a breakthrough was possible in the research of the chronology of the third Diadoch War. Since Antigonus must have been ruling Idumaea in July 315 BC only the so-called high chronology is possible for the third Diadoch War (Boiy 2007a). E. Anson (2005b), a supporter of the low chronology, has recently questioned the Julian dates that have been linked to the Antigonus ostraca from Idumaea. In order to save the low chronology for the third Diadoch War he disconnected the year-counting system used in the Aramaic ostraca from the one in use in Babylonia and he proposed a local system, starting with Antigonus' conquest of Palestine and Idumaea. This means that the ostraca dated Antig.03 should be placed in 312 BC (before the Gaza battle) and the ostracon dated Antig.05 in 310 BC (after Ptolemy's temporary occupation of the region following the Gaza battle) according to Anson.

Let us therefore turn to the local dates now. We have already mentioned the Gambreion inscription *Syll*[3] 302 that mentions the local prytan next to Alexander's regnal years. Greek and Phoenician cities have been using local year-counting systems during the Achaemenid period (see above) and continued to do so during the reign of Alexander. The nature of the local year-counting system was however not always the same. During the Achaemenid period most of the Phoenician towns were ruled by local kings and the regnal years of these kings were used as year-counting system. The bulk of our information is derived from coins that mention the (abbreviated) name of the king and the regnal year[30] and an occasional inscription.[31] After Alexander's passage through Phoenicia, the year-counting system remained the same for most Phoenician cities: coins still exhibit a royal monogram with regnal year. An exception seems to be Sidon: according to Curtius (IV 1,18–26) Alexander appointed a new king, Abdalonim,[32] and as far as the mintage is concerned the royal monogram disappeared and the numbers were replaced by letters. In addition, KAI 60, a bilingual Greek-Phoenician inscription found in Piraeus, was dated to the fourteenth year „of the people of Sidon" (*bšt* 14 *l ᶜm Ṣdn*). The expression „'m + people" indicates an era and since the Greek must be dated in the second half of the fourth century BC Baslez and Briquel-Chatonnet (1991: 236–237) proposed to link the date of this inscription with the changed numismatic evidence from Sidon during the reign of Alexander and to interpret this „era of the people of Sidon" as a liberation era beginning from the moment Alexander „freed" the Phoenician cities from Persian overlordship (or rather from the local royal dynasty).[33]

Also in the Greek cities of the western coast in Asia Minor local year-counting systems were in use, the best known example being Miletus with a stephanophoros as eponym. The relative chronology of these eponyms can be established for quite some years thanks to several ancient lists that have been preserved. Also this system remained in

[30] For Sidon see now Elayi/Elayi 2004.

[31] For Sidon see the Greek-Phoenician bilingual *CIS* I 114 = *Ins. Délos* 50.

[32] Apart from the classical evidence king Abdalonim is now also epigraphically attested in a bilingual Greek-Phoenician inscription from Kos (see Kantzia 1986 and Sznycer 1986).

[33] Later on several of these so-called „liberation era's" started when the Phoenician cities replaced their local kings with other regimes (cf. Baslez/Briquel-Chatonnet 1991: 235–236). According to Leschhorn (1993: 10) the numbers on the Sidonian coins were simply emission numbers and no era, but the appearance of the same dating system in the Phoenician-Greek inscription KAI 60 (see above) makes clear that it was more than a mere emission number since the expression ᶜm + people indicates an era.

use in Miletus after Alexander's arrival and „Alexander, son of Philip" is mentioned as one of them. Since this event must probably be placed when Alexander arrived in Asia Minor after his victory at the Granikos (334 BC) or the following year (333 BC), it can be used to peg the Milesian stephanophoroi into the Julian year-counting system.

The local Egyptian year-counting system during the reign of Alexander the Great according to the demotic documents has been explained above. We also mentioned the local year-counting systems that have been suggested for Idumaea during the reign of Alexander the Great (by Lemaire) and during the period Antigonus Monophthalmus ruled the region as strategos of Asia (by Anson).

This overview of imperial and local dates at the beginning of the Hellenistic period shows in our view that local year-counting systems were limited to special circumstances. Locations (normally cities) with local autonomy, either since Achaemenid times already and confirmed by Alexander or granted by Alexander himself, had the right to keep track of time according to a system of their own choice. In Egypt, Alexander was installed as pharaoh from the moment he conquered the country and this event was accepted in demotic documents as the beginning of his reign or AlexIII.01, as the Egyptians did 25 years later with Ptolemy I. For the rest of the empire Alexander was the accepted successor of the Achaemenid empire and his regnal years, starting from the moment he succeeded his father Philip in 336 BC, were used in the date formulas of all documents. The uniform year-counting system did however not mean that the same calendar was used everywhere in the empire of Alexander the Great. As we explained above, a calendar was for religious and cultic reasons far more conservative and most communities kept using their own calendar. Because New Year's day differs from one calendar to another, this also means that the year number might be one year off for documents from different parts of the empire. After Alexander's death the same year-counting system was used with Philip's name instead of Alexander, even though Philip did not rule, but was a mere puppet king; this did not matter since a fictional king was as good as a real one for year-counting purposes. Since Philip's „reign" started at the same moment for the whole empire, there is no difference anymore between Egypt en the rest of the realm. The other local year-counting systems that existed in the autonomous states of Greek and Phoenician cities on the other hand were still in use without any problem. Also Alexander's son Alexander IV could have appeared as a fictional king in the date formulas all over the empire just as his uncle Philip Arrhidaeus if Antigonus had not decided to replace Alexander's name with his own. Therefore two systems were in use in the regions of what was once the empire of Alexander: in the parts ruled (directly or indirectly) by Antigonus a system using Antigonus' years (antedated to the moment Philip died) and in the other parts one by the official king Alexander (that was linked to Philip's posthumous year). Though also Antigonus allowed the use of local systems in traditionally autonomous cities within his regions,[34] there was no reason whatsoever for him to allow other local systems within his realm.

These conclusions are especially important for the dates of the Aramaic ostraca from Idumaea. If there was no local year-counting system for Alexander the Great in Idumaea, this means that the ostraca bearing the name of Alexander and his second regnal

[34] In the inscription *OGIS* 5, his letter to the citizens of Scepsis, he is, undoubtedly for political reasons only, very concerned about the status of „freedom and autonomy" granted to the Greek cities. As far as we can judge from Phoenician coins, the local computations were also there continued.

year must be attributed to Alexander IV because Alexander had not yet invaded the Achaemenid empire in AlexIII.02. The same argument is of course also true for Antigonus. If there was no reason at all to count differently in parts of the empire, a local computus in Idumaea for Antigonus is unlikely. Moreover, the naming of Antigonus in the tablets of Antig.03, whereas in most cases only the year number is indicated without any reference to the king, might be an indication for the imperial system. In a period of change the scribe might indeed be more inclined to add the (royal) name for the sake of clearness, especially when it was a change from AlexIV.02 to Antig.03. If the scribe simply wrote year 3 there was a high probability of mistakes in the administration. If on the other hand a local year-counting system was in use, these texts are to date two years later and did not originate from the transition period.

In conclusion, we can state that in Alexander's empire during his lifetime and immediately afterwards an imperial year-counting system was in use over the whole empire. Occasionally local systems were added and autonomous cities in Asia Minor and Phoenicia used their own local computus without reference to the imperial system. During Alexander's lifetime the only exception seems to be Egypt; demotic documents were dated by Alexander's regnal years as pharaoh instead of his Macedonian regnal years.

Bibliography

Anson, E. (2005a): A Note on the First Regnal Year of Philip III (Arrhidaeus), *Journal of Cuneiform Studies* 57: 127–128.

Anson, E. (2005b): Idumaean Ostraca and Early Hellenistic Chronology, *Journal of the American Oriental Society* 125: 263–266.

Badian, E. (1989): History from 'Square Brackets', *ZPE* 79: 59–70.

Baslez, M.F., Briquel-Chatonnet, F. (1991): Un exemple d'intégration phénicienne au monde grec: les Sidoniens au Pirée à la fin du Ive siècle, in: *Atti del II congress internazionale di studi Fenici e Punici*, vol. I, Roma: 229–240.

Bennett, C. (in print): *Alexandria and the Ptolemaic Macedonian Calendar,* (*Studia Hellenistica*), Leuven.

Boiy, T. (2002): The 'Accession Year' in the Late Achaemenid and Early Hellenistic Period, in: C. Wunsch (ed.), *Mining the Archives. Festschrift for Christopher Walker on the Occasion of his 60th Birthday*, (Babylonische Archive 1), Dresden: 25–33.

Boiy, T. (2005): Alexander Dates in Lydian Inscriptions, *Kadmos* 44: 165–174.

Boiy, T. (2007a): Cuneiform Tablets and Aramaic Ostraca: Between the Low and High Chronologies of the Early Diadoch Period, in: W. Heckel, L. Tritle, P. Wheatley (eds.), *Alexander's Empire. Formulation to Decay*, Claremont: 199–207.

Boiy, T. (2007b): *Between High and Low. A Chronology of the Early Hellenistic Period*, (*Oikumene*. Studien zur antiken Weltgeschichte 5), Frankfurt am Main.

Bosworth, A.B. (1988): *Conquest and Empire. The Reign of Alexander the Great*, Cambridge.

Brinkman, J.A. (1976): *A Catalogue of Cuneiform Sources Pertaining to Specific Monarchs of the Kassite Dynasty*, (*Materials and Studies for Kassite History* 1), Chicago, Il.

Cohen, M.E. (1993): *The Cultic Calendars of the Ancient Near East*, Bethesda.

Depauw, M. *et al.* (2008): *Chronological Survey of Demotic and Abnormal Hieratic Sources*, Version 1.0, February 2007, Köln–Leuven.

Depuydt, L. (1995a): "More valuable than all Gold": Ptolemy's Royal Canon and Babylonian Chronology, *Journal of Cuneiform Studies* 47: 97–117.
Depuydt, L. (1995b): Regnal Years and Civil Calendar in Achaemenid Egypt, *JEA* 81: 151–173.
Depuydt, L. (1996): Regnal Dating under Cambyses and the Date of the Persian Conquest, in: P. Der Manuelian (ed.), *Studies in Honor of William Kelly Simpson*, Boston: 179–190.
Depuydt, L. (2006): Foundations of Day-exact Chronology: 690 BC–332 BC, in: E. Hornung, R. Krauss, D.A. Warburton (eds.), *Ancient Egyptian Chronology*, (*Handbook of Oriental Studies* I/83), Leiden–Boston: 458–470.
Devauchelle, D. (1998): Un problème de chronologie sous Cambyse, *Transeuphratène* 15: 10–17.
Elayi, J., Elayi, A.G. (2004): *Le monnayage de la cite phénicienne de Sidon à l'époque perse (Ve–IVe s. av. J.–C.)*, (*Transeuphratène* – Suppl. 11), Paris.
Eph^{c}al, I., Naveh, J. (1996): *Aramaic Ostraca of the Fourth Century B.C. from Idumaea*, Jerusalem.
Grzybek, E. (1990): *Du calendrier macédonien au calendrier ptolémaïque: problèmes de chronologie hellénistique*, (*Schweizerische Beiträge zur Altertumswissenschaft* 20), Basel.
Grzybek, E. (1993): Eine Inschrift aus Beroia und die Jahreszählweisen der Diadochen, *Ancient Macedonia* 5 (1): 521–527.
Habicht, C. (1973): Literarische und epigraphische Überlieferung zur Geschichte Alexanders und seiner ersten Nachfolger, in: *Akten des VI. Internationale Kongress für Griechische und Lateinische Epigraphik*, (*Vestigia*. Beiträge zur Alten Geschichte 17), München: 365–377.
Hatzopoulos, M.B. (1995): La lettre royale d'Olévéni, *Chiron* 25: 163–185.
Hatzopoulos, M.B. (1996): *Macedonian Institutions under the Kings. II. Epigraphic Inscriptions*, (*Melethemata* 22), Athens.
Haussoulier, B. (1924): n^{o} 50 Megaleis Katefches, in: W.H. Buckler, *Sardis VI/2: Lydian Inscriptions*, Leiden: 68–72.
Horsnell, M. (1999): *The Year-Names of the First Dynasty of Babylon*, Hamilton.
Kantzia, Ch. (1986): …ΤΙΜΟΣ ΑΒΔΑΛΩΝΥΜΟΥ [ΣΙΔ]ΩΝΟΣ ΒΑΣΙΛΕΩΣ. ΜΙΑ ΔΙΓΛΩΣΣΗ ΕΛΛΗΝΚΗ-ΦΟΙΝΙΚΙΚΗ ΕΠΙΓΡΑΦΗ ΑΠΟ ΤΗΝ ΚΩ, *Arch. Deltion* 35 (1980, publ. 1986): 1–16.
Lemaire, A. (1996): *Nouvelles inscriptions araméennes d'Idumée au Musée d'Israël*, (*Transeuphratène* – Suppl. 3), Paris.
Lemaire, A. (1999): Der Beitrag idumäischer Ostraka zur Geschichte Palästinas im Übergang von der persischen zur hellenistischen Zeit, *ZDPV* 115: 12–23.
Leschhorn, W. (1993): *Antike Ären. Zeitrechnung, Politik und Geschichte im Schwarzmeerraum und in Kleinasien nördlich des Tauros*, (*Historia*. Einzelschriften 81), Stuttgart.
Oppert, J. (1898): Alexandre à Babylone, *CRAI*: 413–446.
Parke, H.W. (1977): *Festivals of the Athenians*, London.
Parker, R.A., Dubberstein, W.H. (1956): *Babylonian Chronology 626 B.C.–A.D. 75*, (*Brown University Studies* 19), Providence, Rhode Island.
Pestman, P.W. (1981): *A Guide to the Zenon Archive* (P.L.Bat. 21), Leiden.
Richards, E.G. (1998): *Mapping Time. The Calendar and its History*, Oxford.
Samuel, A.E. (1962): *Ptolemaic Chronology*, München.
Samuel, A.E. (1972): *Greek and Roman Chronology. Calendars and Years in Classical Antiquity*, München.
Sidky, H. (2000): *The Greek Kingdom of Bactria. From Alexander to Eucratides the Great*, Lanham–New York–Oxford.
Shaked, S. (2004): *Le satrape de Bactriane et son gouverneur. Documents araméens du IV^{e} s. avant notre ère provenant de Bactriane*, (*Persika* 4), Paris.
Sznycer, M. (1986): La partie phénicienne de l'inscription bilingue gréco-phénicienne de Cos, *Arch. Deltion* 35 (1980, publ. 1986): 17–30.
Trümpy, C. (1997): *Untersuchungen zu den altgriechischen Monatsnamen und Monatsfolgen* (*Bibliothek der klassischen Altertumswissenschaften*. Neue Folge 2/98), Heidelberg.
Van der Spek, R.J. (in print): Seleukos, Self-appointed General (strategos) of Asia (311–305 B.C.) and the Satrapy of Babylonia, in: H. Hauben, A. Meeus (eds.), *The Age of the Successors (323–276 B.C.)*, (*Studia Hellenistica*), Leuven.