

Title: **The First Zodiac Sign and the Daimon:
The Advent of an Astrological Tradition and Seven Elaborate
Horoscopes**



Author(s):
Andreas Winkler

Document type: Postprint

Terms of Use: Copyright applies. A non-exclusive, non-transferable and limited right to use is granted. This document is intended solely for personal, non-commercial use.

Citation:

"Andreas Winkler, 2022, Studien zur Altägyptischen Kultur, S. 267-319 ; <https://doi.org/10.46771/978-3-96769-258-7>"
Archiviert unter <http://dx.doi.org/10.17169/refubium-41373>

The First Zodiac Sign and the *Daimon*: The Advent of an Astrological Tradition and Seven Elaborate Horoscopes*

Andreas Winkler
Freie Universität Berlin

Taf. ###

Abstract

Known as the cradle of astrology in antiquity, Egypt has produced an astonishing amount of evidence for its practice. The multifaceted sources at our disposal show the widespread popularity of astrology during the Graeco-Roman period. The material includes monumental zodiac depictions, astrological manuals, and horoscopes of various levels of sophistication in both Greek and Demotic. While the majority of the published horoscopes in Egyptian are regarded as so-called simple horoscopes, the Greek examples are a more varied lot. Nevertheless, elaborate horoscopes were also compiled in the native language. Here seven horoscopes on ostraca written in demotic and hieratic are presented and discussed. The texts are among the oldest sources for natal astrology from ancient Egypt, recording nativities between the years 48 BC and AD 1. They are also the most elaborate horoscopes in Egyptian known to date. The positions of the planets in the zodiac signs are given in degrees of longitude, and these are correlated to the so-called system of terms. The astrologers compiling the horoscopes, furthermore, calculated the position of the lots, such as the Lot of the *Daimon* and the Lot of Fortune. In total, eight such points are mentioned. Other astrologically relevant phenomena that are mentioned include prenatal syzygies, which were established by correlating the lunar and civil calendars. The date of the nativity is connected to a year in the 25-year lunar cycle seemingly following the system laid out in P.Carlsberg 9.

1. Introduction

In 1968, O. Neugebauer and R.A. Parker published two Egyptian horoscopes in the *Journal of Egyptian Archaeology*.¹ One of the pieces was the demotic O.Berl. 6152 (AD 57), a rather standard text for its kind, and the other text was ANAsh.Mus.D.O. 633 (44 BC).² The latter horoscope appeared to be an outlier. The text is written in a mix of scripts, both demotic and hieratic and in the interpretation of the *ed.pr.*, it contained unusual terminology and mentioned several astrological reference points which were not otherwise attested in similar materials. The two editors also noted that the piece was the oldest text of its kind from ancient Egypt.³ The nativity could be dated to the reign of Cleopatra VII Philopator, referred to as ‘The Queen^{L.P.H.}’ (*t3 pr-c3.t.w.s.*) (see below).

* This article was written during a fellowship at the Einstein Centre Chronoi in Berlin (2019/2020) and finished in the framework of the project “Zodiac: Ancient Astral Science in Transformation” (885478) financed by the European Research Council under its Horizon 2020 programme, Advanced Grant Scheme. I am indebted to Friedhelm Hoffmann, Joachim F. Quack, and Michael Zellmann-Rohrer for discussing the material with me.

¹ O. Neugebauer/R.A. Parker, Two Egyptian Horoscopes, in: JEA 54, 1968, 231–235.

² The text has been discussed in, for instance, J.F. Quack, Egypt as an Astronomical-Astrological Centre between Mesopotamia, Greece, and India, in: D. Brown (ed.), The Interactions of Ancient Astral Science, Hamburg 2018, 100; A. Winkler, A Starry Summer Night in AD 142: A Demotic Horoscope (MSS Griffith 3.59) in Context, in: F.A.J. Hoogendijk/K. Donker van Heel/C.J. Martin (eds), Of Making Many Books There Is No End: Festschrift in Honour of Sven P. Vleeming, PLBat 34, Leiden 2018, 304, n. 34. The text is also discussed on the basis of the *ed.pr.* by S. Heilen, “Hadriani genitura”: Die astrologischen Fragmente des Antigonos von Nikaia, Texte und Studien 43, Berlin 2015, 316; D. Gieseler Greenbaum, The Hellenistic Horoscope, in: A.C. Bowen/F. Rochberg (eds), Hellenistic Astronomy: The Science in its Context, Leiden 2020, 452–453 and 467; M. Ross, Demotic Horoscopes, in: Bowen/Rochberg (eds), Hellenistic Astronomy, 414–415.

³ See A. Winkler, On the Demotic-Hieratic Horoscopes from Athribis, in: JHA 53, 2022, 336, n. 13, for literature on the published Greek and Egyptian horoscopes.

A few new preliminary readings were suggested for the piece held by the Ashmolean Museum in Oxford as a result of the discovery of six additional texts on five ostraca of the same type in the holdings of the same institution.⁴ It is now clear that the texts come from Athribis in Upper Egypt.⁵ They reached the museum through F.Ll. Griffith, who must have received them from W.M.F. Petrie, who excavated the site.⁶ M. Escolano-Poveda has recently reedited ANash.Mus.D.O. 633 together with O.Athribis 17-36-5/1741, an ostrakon found at the site in 2019 containing three similar horoscopes—here labelled as A (Nov. 1, 27 BC), B (May 15, 21 BC), and C (Aug. 10, 6 BC).⁷

The seven horoscopes identified in the collections of the Ashmolean Museum are indeed an unusual group of texts compared to the other, roughly contemporary examples of similar pieces from Egypt. Not only do they constitute the oldest attested specimens of their kind,⁸ the horoscopes are also—as already noted—written in a mixed script of hieratic and demotic. The names of planets, some of the zodiac signs, and some of the lots (see Ch. 3 below) are written in the hieratic script. Demotic is generally used to indicate the other information, such as the names of the natives, numbers (though some are written in hieratic), and dates. The practitioners often used what can be regarded as sportive writings for the astrologically relevant elements and judging by published materials, the orthographies of several of these appear to be largely local. The practice can, however, be compared with the one found at, for instance, Roman Narmouthis. There too the astrologers made use of metonymic symbols to write the name of the planets and the zodiac signs (see Ch. 3 below).⁹

The Athribis pieces are so-called elaborate horoscopes.¹⁰ That is, they go beyond simply providing the position of a planet in a zodiac sign. Instead the planetary longitudes down to

⁴ Winkler, in: Fs. Vleeming, 304, nn. 34–35.

⁵ Previously I had hesitantly assumed that the texts could have a Theban origin (see n. 6 below, however), but it is now clear that they come from Athribis together with the large finds of other ostraca (see A. Boud'hors *et al.*, *Les dépotoirs à tessons de Hout-Répit/Athribis et leur matériel inscrit. Rapport préliminaire (mission 2019–2020)*, in: BIFAO 121, 2021, 69–145; S.L. Lippert/M. Schentuleit, *Demotic Ostraca and Their Use in Egyptian Temple Context from the Graeco-Roman Period: Soknopaiou Nesos and Hut-Repit*, in: C. Caputo/J. Luogovaya [eds], *Using Ostraca in the Ancient World, Materiale Textkulturen* 32, Berlin 2020, 199).

⁶ See W.M.F. Petrie, *Athribis*, London 1908, 11. Ostraca with stars are mentioned in the publication. Following a request regarding the excavation notebooks, Emma Libonati informed me (e-mail: 15.05.2017) that it is possible that the ostraca were handed over to Griffith for study, as he had followed Petrie to the field.

⁷ M. Escolano-Poveda, *Astrologica Athribitana: Four Demotic-Hieratic Horoscopes from Athribis (O. Athribis 17-36-5/1741 and ANash.Mus.D.O.633 Reedited)*, in: JHA 53, 2022, 49–87 (see Winkler, in: JHA 53, 2022, 328–337, for necessary corrections, but note that the newly edited ostrakon containing three texts is mistaken for two pieces). Although I was informed in 2019 about the new texts, I had no access to them for the preparation of this paper, which was accepted for publication prior to the appearance of Escolano-Poveda's edition. The latter is cited only where it contributes to the interpretation of the Ashmolean horoscopes.

⁸ The oldest Greek example of such a text is a nativity of 29 BC: *BKT* X 29. It is a simple horoscope and may have been an astrologer's note. Neither the date of birth nor introductory formulae are present, but the time of birth can be established due to the preserved planetary positions. The second oldest horoscope *BGU* III 957 (Heilen, "Hadriani genitura", 216), which dates to 10 BC, is only partially preserved and therefore it is unknown how advanced the information would have been, i.e. whether it provided any astronomical positions beyond a typical standard horoscope as the current texts do. Another fairly early example is *P.Oxy.* IV 804 (4/3 BC) (see nn. 53 and 152 below), giving slightly more information than the standard horoscope (see n. 10 below).

⁹ E.g., M. Ross, *Further Horoscopic Ostraca from Medinet Mâdi*, in: *EVO* 32, 2009, 62–63.

¹⁰ For instance, *P.Oxy.* II 307 (AD 46) is in some respects similar. It contains the positions of the planets in the zodiac signs with longitudes and notes in which terms and houses they were. It also provides the location of the four cardinal points (O. Neugebauer/H.B. van Hoesen, *Greek Horoscopes*, MAPS 48, Philadelphia PA 1959, 19–20). See also, e.g., *P.Oxy.Astron.* 4236 (AD 63); 4237 (AD 84); 4239 (AD 130). A slightly more advanced

half a degree on the ecliptic are given. These positions are then correlated to the system of the terms (see Ch. 3.7 below). Several additional points are also mentioned, such as the four cardines and up to eight lots (see Ch. 3.3 below). The texts are the most advanced horoscopes written in Egyptian known to date,¹¹ save for the so-called Old Coptic Horoscope.¹²

Table 1: The Texts

Text	Inv. No.	Date of Nativity
Hor. 1	ANash.Mus.D.O. 641	Sept. 30, 48 BC
Hor. 2	ANash.Mus.D.O. 633	Apr. 22, 44 BC
Hor. 3	ANash.Mus.D.O. 519rev	Jan. 27, 36 BC*
Hor. 4	ANash.Mus.D.O. 741	Feb. 28 – Mar. 4, 19 BC*
Hor. 5	ANash.Mus.D.O. 685	Nov. 16/17, 14 BC
Hor. 6	ANash.Mus.D.O. 634	Aug. 30, AD 1
Hor. 7	ANash.Mus.D.O. 519obv	--- ¹³

The * indicates that the date is calculated from the given planetary positions. The texts have been ordered according to the date of the recorded nativity.

The dates of the recorded nativities span almost half a century. The oldest one (Horoscope 1) dates to 48 BC, while the latest securely datable birth (Horoscope 6), can be attributed to AD 1. It cannot be assumed that the texts were all written close to the birth date. For instance, Horoscope 1, which records a birth in the fifth regnal year of Cleopatra VII Philopator, must have been written in, or after, the reign of Augustus. Instead of naming the

version is found in *P.Oxy.* XXXI 2555 (AD 46). It contains similar information as the previously mentioned ones but adds further calculations, such as the *dodekatemoria*. *P.Oxy.* II 235 (1st cent. AD) gives the positions of the planets and enumerates in which houses they were but does not state longitudes. The astronomical information is muddled, which makes it hard to date, but it records a nativity in the reign of Tiberius. *P.Lond.* I 130 (AD 81) and *P.Lond.* I 98 (AD 95), also known as the *Old Coptic Horoscope* (see, e.g., Neugebauer/van Hoesen, *Greek Horoscopes*, 28–38; J. Černý/P.E. Kahle/R.A. Parker, *The Old Coptic Horoscope*, in: *JEA* 43, 1957, 86–100; A. Winkler, *Some Astrologers and their Handbooks in Demotic Egyptian*, in: J.M. Steele (ed.), *The Circulation of Astronomical Knowledge in the Ancient World*, TAC 6, Leiden 2016, 263–267), and *P.Oxy.Astron.* 4245 (AD 218) are more elaborate and may be termed ‘deluxe horoscopes’. Additional examples of this type include *P.Oxy.Astron.* 4276–4284 (1st to 5th cent. AD) and P.Berl. 9825 (AD 319) (D. Gieseler Greenbaum/A. Jones, P.Berl. 9825: An Elaborate Horoscope for 319 CE and its Significance for Greek Astronomical and Astrological Practice, in: *ISAW Papers* 12, 2017).

¹¹ The demotic *O.Neugeb.* 1–4 (1st cent. AD) are best called semi-elaborate; they provide longitudes for the Moon, but for no other planet. The horoscopes contain references to a number of points and seem ideally to have included every position of the *Dodecatropos* plus a few additional ones. *O.Leid.Dem.* 333 (1st cent. AD) appears to be unique in its configuration.

¹² The text is written in Greek and Old Coptic. The astronomical calculations are in Greek and so are the first couple of predictions. The part written in Egyptian contains forecasts structured according to the positions of the planets. Due to the fact that the Greek sequence contains predictions the two parts cannot be regarded as separate; the scribe(s) merely chose to switch from Greek to Egyptian for the majority of the forecasts (see n. 53 below).

¹³ The text was tentatively dated to 22/23 BC in A. Winkler, *Stellar Scientists: The Egyptian Temple Astrologers*, in: *JANEH* 8, 2021, 132, but was based on a misinterpretation of the astronomical information.

female monarch as eponym, the astrologer states that the nativity took place during the fifth year out of twenty-two regnal years (*hsb.t 5.t n 22(.t)*).¹⁴

2. The Horoscopes

2.1 Structure of the Horoscopes

The structure of the horoscopes published here is by and large uniform. In their general configuration, the texts resemble the standard layout of a Greek equivalent or those appearing in Egyptian after ca AD 50 (see Ch. 2.1 below).¹⁵ But they represent a more advanced version thereof.¹⁶ Within this group of horoscopes, there is only slight variation in detail and placement of the included elements. Most texts have the following structure:¹⁷

Date (Regnal Year, Month, Day, and Hour of Birth)

If the date refers to the reign of Cleopatra VII, she can be referred to as the Queen (*t3 pr-3.t^{ws.}*) as found in Horoscope 2 or, as already indicated, by her total number of regnal years. The latter method shows that the text was composed after the conclusion of her reign, and it is to be assumed that the text mentioning Cleopatra VII as the Queen was also written after her lifetime. Horoscope 2 could thus in theory have been produced prior to Horoscope 1.¹⁸ Roman nativity dates—all belong to the reign of Augustus—only state the regnal year of the monarch without mentioning the ruler or any of his titles.

In horoscopes from Egypt, dates given for the Imperial era can follow the Alexandrian calendar introduced early in the reign of Augustus.¹⁹ The practice seems well established in many of the more or less contemporary texts of a similar kind, e.g., *O.Neugeb.* 1 (AD 13), 3 (AD 18), and 4 (AD 35). In a few demotic horoscopes, such as *O.Brookl.Dem.* 145 (AD 58)²⁰ and Griffith MSS 3.59 (AD 142), this is made explicit.²¹ No such remark is made in the texts published here. It seems, however, that Horoscope 6 first gives the date according to the Alexandrian calendar, Thoth day 2, and then adds the numeral corresponding to the day according to the Egyptian civil calendar,²² which was day 8 of the same month, but using a regular numeral. It is unclear whether Horoscope 5 contains a double date according to both calendars or the precise date of the nativity was unknown.²³ Horoscopes A–C recording

¹⁴ See the n. to l. 1 in Horoscope 1.

¹⁵ See, e.g., Neugebauer/van Hoesen, *Greek Horoscopes*, 163–164; M. Ross, *An Introduction to the Horoscopic Ostraca of Medinet Mâdi*, in: *EVO* 29, 2006, 156–158; Winkler, in: *Fs. Vleeming*, 302–306.

¹⁶ The complexity of a horoscope does not always reflect the skills of the practitioner. *P.Oxy.* XLVI 3298 (see also *Suppl.Mag.* II 85) of the third century AD contains one horoscope with precise longitudes of the planets in the zodiac signs and one where they are only given in relation to a whole sign. The text is probably part of a practitioner's 'notebook'. The text also contains instructions on how to arrange a dream oracle, which indicates that the same person would have been responsible for both types of divinatory acts.

¹⁷ Cf. Gieseler Greenbaum, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 458–461.

¹⁸ Regnal years of Cleopatra VII mentioning her as the Queen in the date are found in the Roman period, e.g., *BGU* IV 1198 (4 BC) and *SB* XV7537 (5 BC). Note that her name is not added in these cases. See the n. to l. 1 in Horoscope 2.

¹⁹ E.g., A. Jones, *Astronomical Papyri from Oxyrhynchus*, MAPS 233, Philadelphia PA 1999, 1.312.

²⁰ Quack, in: Brown (ed.), *Interactions of Ancient Astral Science*, 102, n. 191.

²¹ P. Gallo, *Ostraca demotici e ieratici dall'archivio bilingue di Narmouthis II* (nn. 34–99), *QMM* 3, Florence 1997, liii; Jones, *Astronomical Papyri*, 1.12–15; Quack, in: *Enchoria* 31, 2008/2009, 106; Ross, in: *EVO* 29, 2006, 151; Winkler, in: *Fs. Vleeming*, 301–302.

²² A few texts, such as *P.Aberd.* 13 (AD 187), mention dates according to both calendars.

²³ See the n. to l. 1 in Horoscope 5.

Roman-period births appear to be dated only according to the Egyptian civil calendar.²⁴ The use of two systems at one locality is not unique to Athribis. The Theban ensemble of horoscopes published by Neugebauer suggest the same. Some texts follow the Alexandrian calendar, while a few pieces are dated according to the Egyptian civil calendar (e.g., *O.Neugeb.* 2). The nativities in Athribis dating to the Ptolemaic period are given according to the latter calendar.

After the date has been specified, the seasonal hour of the birth is given.²⁵ That is, during what hour of the day or night the native was born.²⁶ In the preserved instances, only diurnal nativities are present, although one nocturnal nativity has been reconstructed (Horoscopes 3). The word for day is only written with the Sun sign, similar to practices in texts of a more astronomical nature, e.g., O.Berl. 30539 (AD 184/185).²⁷

Another time mark is sometimes extant, namely that of the current year of the 25-year lunar cycle.²⁸ It is usually noted after the positions of the two luminaries have been given (see below). Following the practice found in P.Carlsberg 9,²⁹ each year in the lunar cycle is referred to as *ḥsb.t*, ‘numbering year’, with a digit indicating what year it was in the cycle. Such notations are preserved in Horoscopes 1, 2, 5, and 6.

Name of the Native

The name of the native is present in three cases where the upper part of the manuscript is preserved. This is the case in Horoscopes 1, 2, and 5.³⁰ Horoscope 6 also has the first line

²⁴ Escolano-Poveda, in: JHA 53, 2022, 64.

²⁵ See also Ross, in: EVO 29, 2006, 150.

²⁶ The terminology used by the astrologers differs from locality to locality. In Narmouthis, for instance, the terms *grh*, ‘night’, and *mtry*, ‘midday’, were used for nocturnal and diurnal births respectively (e.g., A. Menchetti, Un aperçu des textes astrologiques de Médinet Madi, in: D. Devauchelle/G. Widmer [eds], Actes du IX^e congrès international des études démotiques: Paris, 31 août–3 septembre 2005, BdÉ 147, Cairo 2009, 225). In Thebes, both *grh* and *rwhty*, ‘evening’, were used for nocturnal births, while *hrw* was used for diurnal ones (O. Neugebauer, Demotic Horoscopes, in: JAOS 63, 1943, 116).

²⁷ F. Hoffmann, Astronomische und astrologische Kleinigkeiten VI: Neumonddaten aus dem Jahre 184/185 n. Chr., in: H. Knuf/Ch. Leitz/D. von Recklinghausen (eds), Honi soit qui mal y pense: Studien zum pharaonischen, griechisch-römischen und spätantiken Ägypten zu Ehren von Heinz-Josef Thissen, OLA 194, Leuven 2010, 233–236. See also M. Ossendrijver/A. Winkler, Chaldeans on the Nile: Two Egyptian Astronomical Procedure Texts with Babylonian Systems A₁ and A₂ for Mercury, in: J. Crisostomo *et al.* (eds), “The Scaffolding of Our Thoughts”: Essays on Assyriology and the History of Science in Honor of Francesca Rochberg, AMD 13, Leiden 2018, 393–396.

²⁸ That the remark indicates a lunar year was already assumed in the *ed.pr.* of Horoscope 2, but its purpose was not fully understood.

²⁹ E.g., O. Neugebauer/R.A. Parker, Egyptian Astronomical Texts: Decans, Planets, Constellations and Zodiacs, BEStud 6, Providence RI 1969, 3.220–225. See also L. Depuydt, The Demotic Mathematical Astronomical Papyrus Carlsberg 9 Reinterpreted, in: W. Clarysse/A. Schoors/H. Willems (eds), Egyptian Religion the Last Thousand Years: Studies Dedicated to the Memory of Jan Quaegebeur, OLA 85, Leuven 1998, 1276–1297; *id.*, The Regnal Years of the ‘Mathematical Astronomical’ Demotic Papyrus Carlsberg 9, in: R. Landgráfová/J. Mynářová (eds), Rich and Great: Studies in Honour of Anthony J. Spalinger on the Occasion of His 70th Feast of Thot, Prague 2016, 39–60. See also Winkler, in: JHA 53, 2022, 329–331.

³⁰ The same feature can be observed in a few other demotic examples, e.g., O.Glasg.Dem. 1925.96 (AD 7) (J.F. Quack, Ein astrologisches Ostrakon der frühen Kaiserzeit (oGlasgow D 1925.96), in: Enchoria 31, 2008/2009, 104–112) and several texts of the second century AD from Narmouthis published by M. Ross. In Greek counterparts, this phenomenon is also relatively common (Jones, Astronomical Papyri, 1.8) and can be found in a number of instances of both simple and more elaborate examples, including *P.Lond.* I 130; *P.Oslo* I 6 (AD 150); *P.Oslo* III 164 (2nd cent. AD); *P.Oxy.* II 235; *P.Tebt.Tait.* 50 (AD 145). Unsurprisingly, names were

preserved, but the name of the native was not recorded there. The published parallels (Horoscopes A–C) suggest that the name of the native could also be written in addition to the astronomical and astrological information. This seems to be the case in Horoscopes 4 and 7, which contain names at the side or the bottom of the piece.³¹ The locality of the native can also be stated in connection to the name.

Positions of the Two Luminaries (Sun and Moon)

As in most horoscopes of the Graeco-Roman period, the position of the two luminaries, the Sun followed by the Moon, can be found after the date of the nativity has been given. Where preserved the longitudes are provided with a note on the terms in which the two celestial bodies were located (see Ch. 3.7 below). The position of the Moon is also augmented with the longitude of the prenatal syzygies in four preserved instances (Horoscopes 1, 2, 5, and 6). Either the New or Full Moon is given (see Ch. 3.9 below).

Positions of the Five Planets

Similar to the two luminaries, the planets are given exact longitudes in relation to the zodiac as well as to the terms. A planet could be in either its own terms or those of another one (see Ch. 3.7 below).

The order of the planets in these texts follows the standard of the Graeco-Roman period. It begins with the slowest moving planet as seen from a geocentric point of view and progresses to the fastest moving one. The three superior planets—those furthest away from the Sun—are followed by the two interior ones, producing the well-known order: Saturn, Jupiter, Mars, Venus, and Mercury.³² Unlike many horoscopes of a slightly later date in both Egyptian and Greek, the positions are always given in that order, even when two planets were found in the same zodiac sign. The fact that the astrologer added longitudes and planetary terms must be the primary reason for plotting each planet on a separate line: more space was needed for such notations.

Remarks on the Native's Lifetime

In a number of the texts, a remark related to the native's lifetime is inserted in connection with one or more planets. One is written with the abbreviated fallen-enemy sign \swarrow (Z6). It

a regular feature in the nativity notes. See, e.g., F. Hoffmann, *Astronomische und astrologische Kleinigkeiten I: Pap. Wien D6005*, in: *Enchoria* 22, 1995, 22–26. The same is also applicable to Greek materials of this sort.

³¹ These were elsewhere interpreted as the signatures of the astrologers who compiled the texts (Winkler, in: *JANEH* 8, 2021, 132–133). This interpretation relied on the fact that the names are connected to sacerdotal titles. The name found at the bottom of Horoscope 4, probably to be read as Apollonios or similar, is accompanied by the title *hry hry-ꜥ.w*, ‘chief of the *pastophoroi*’ (see the n. *ad loc.*). In Horoscope 7, the named individual is Harnouphis, who was a *wꜥꜥ*, ‘superior priest’ (For the title in question, see Winkler, in: *JANEH* 8, 2021, 105, n. 82). Notations referring to the practitioner are rare in the horoscopic material from Egypt so far known. In Greek materials, it is only found in *P.Lond.* I 130 and *P.Oxy.Astron.* 4266 (AD 312) (see S. Heilen, *Hellenistic Horoscopes in Greek and Latin: Contexts and Uses*, in: Bowen/Rochberg [eds], *Hellenistic Astronomy*, 493; Jones, *Astronomical Papyri*, 1.8 and 2.272). In the latter papyrus, the practitioner placed his name at the bottom of the piece, which made the connection in the present material plausible. Nevertheless, the fact that names could be written on the side contradicts this interpretation. Titles connected to the temple also appear in connection with the patronym of the native in O.Glasg.Dem. 1925.96, who was a *pastophoros*. While the first interpretation cannot be excluded, it needs additional substantiation in order to be corroborated.

³² See, e.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.175.

is found in Horoscope 2 (Saturn) and 5 (Moon), as well as Horoscopes A (Moon), B (Jupiter and Venus), and C (Saturn). Horoscope 2 makes it clear that we are dealing with a bipartite sentence. The latter word is apparently interchangeable with a term which can be written as 𐤓 (Horoscopes 1 and 6). The hieratic sign can be read as either as 𐤓 (P6) or 𐤓 (S42).³³ In the two attestations of the term, it is connected to Saturn.

Horoscopes 1, 2, 5, and 6 provide another remark after the remaining planetary positions. It reads *wsh*: 𐤓 (1); 𐤓 (2); 𐤓 (2); 𐤓 (5); 𐤓 (6).³⁴ When *wsh* is written it must similarly to other notations be viewed as an abbreviation of a bipartite pattern *iwšf wsh*. It appears as such in Horoscope 2 (ll. 5, 6, and 7) and Horoscope A (ll. 5, 7, and 8). No clear instance of the verb in question can be seen in Horoscopes 3, 4, and 7. In Horoscopes 3 and 4, the notation is not preserved. The left side is missing. The word is also inserted in relation to the two luminaries in Horoscopes 1 and 6. Horoscope 2 provides the comment after the lunar cycle year, but not after the Sun's or the Moon's longitudes, probably due to lack of space.

The remarks refer to the periods of life indicated by the planetary position, the lifetime determined by each planet. The fact that the remarks follow the notations of terms (see Ch. 3.7) favours the interpretation. In the context of life-giving, *wsh* could be translated as 'add', that is, adding lifetime for the native. Although clearly negative, 𐤓 does not present an obvious reading. The term is possibly related to the concept of ἀναιρέτης, 'destroyer (of the lifetime)', often used of planets in relation to calculations of length of life in Greek astrological writings.³⁵ Since Coptic ϩⲟⲣⲧⲃ can render the Greek verb ἀναιρέω, which can be translated as 'make away with' or 'destroy', *htb*, 'kill' or 'destroy', seems to be a viable reading. 𐤓 or 𐤓 should be a related term. Escolano-Poveda only discusses the former reading (*ḥr*) and suggests 'stop' or 'uncertain' as translations, with the meaning that no more lifetime should be added by the planet in question or that the outcome of the planet's position is unclear.³⁶ The latter sign, however, can be read as *hrp*, 'first' or 'control', or *shm*, 'destroy'. The second reading could function as a synonym to *htb*. If *hrp* is correct, it could be an Egyptian equivalent to the term ἀφείτης designating a celestial body from which the calculation of lifetime begins.³⁷ Usually the term refers to either one of the luminaries depending on the chart, but planets can also take this role. More evidence is needed to corroborate any of the suggested readings. Thus, the term is left untranslated.

As they have to do with the length of life of the native, it is possible that these notations are also connected with the planets as 'time-rulers' (*chronokratores*).³⁸ The remark would

³³ G. Möller, *Hieratische Paläographie III: Späthieratisch*, Leipzig 1909, 3.36 and 3.43; U. Verhoeven, *Untersuchungen zur späthieratischen Buchschrift*, OLA 99, Leuven 2001, 172–173, 182–183, and 265–266.

³⁴ W. Erichsen, *Demotisches Glossar*, Copenhagen 1954, 76; see the n. to l. 2 in Horoscope 1.

³⁵ Vettius Valens, *Anth.* 3.3, specifies that only the two luminaries and Saturn and Mars can be an ἀναιρέτης. Later in that same book, however, he mentions, that Jupiter, for instance, can also have this function.

³⁶ Escolano-Poveda, in: *JHA* 53, 2022, 71.

³⁷ See, e.g., Neugebauer and van Hoesen, *Greek Horoscopes*, 12. The term *hrp* is attested in astrological papyri in relation to the celestial body from which one is to start the assignment *chronokratores* (see the n. below).

³⁸ E.g., A. Bouché-Leclercq, *L'astrologie grecque*, Paris 1899, 491–506. M. Zellmann-Rohrer, *The Chronokratores in Greek Astrology in Light of a New Papyrus Text* (Oxford, Bodl. MS gr. class. B 24 (P) 1–2), in: *Harvard Studies in Classical Philology* 112, 2021, *in press*, provides the most up-to-date discussion of the system of the *chronokratores*. That the concept existed early on is evidenced by the so-called Old Coptic Horosco-

in that case indicate how the native would be affected during the different periods ascribed to the planets as *chronokratores*. Two main systems for attributing these existed. In one, the planets and the two luminaries represent different phases of life. Saturn usually epitomises the last stage, while the Moon commonly signifies the first. In the second system, the planets together are responsible for periods of 129 months (10 years and 9 months). Depending on the nativity, the period usually starts with either the Sun or the Moon. The configuration of the planets at the moment of birth determines, however, which one of them governed the different subdivisions and the order of the 129 months periods.³⁹

The Four Centres (Ascendant, Descendant, Midheaven, Lower Midheaven)

After the five planets have been recorded, all four cardinal positions (Table 2) are provided with the longitude of each point in the appropriate zodiac sign. The same order of these points can be found in other texts, such as in the horoscopes *O.Neugeb.* 1–4, where they appear in conjunction with the astrological places, the so-called *Dodecatropos* (see Ch. 3.5 below). A few astrological texts, such as P.Carlsberg 81,⁴⁰ also separate these from the remaining points, although not always in the same way.

The compilers of the horoscopes seem to have calculated these four points consistently. The Ascendant and Descendant are positioned 180° opposite each other, as are Midheaven (Lake of the Sky) and Lower Midheaven (Lake of the Netherworld). While the ancient astrologers could calculate each of these points at a distance of 90° from one another,⁴¹ Midheaven should be the point where the zodiac traverses the local meridian.⁴² At Athribis this was addressed by adjusting the angle by 2°. From an astronomical perspective, however, this is incorrect.

They calculated the distance between the Ascendant and the Lower Midheaven at 88° and the same for the distance between the Descendant and the Upper Midheaven. This produced a distance of 92° between the Upper Midheaven and the Ascendant as well as for the Lower Midheaven and the Descendant. In Horoscope 1, the Ascendant and Descendant

pe (see n. 10 above), which shows that the concept was used already by the first century AD and that the system was compatible with astrological manuals in the native script. Another piece of evidence for the usage of the *chronokratores* is furnished by *O.Narm.Dem.* I 27 (2nd cent. AD). The latter text refers to the astrological consultation as follows: *ἰψὴ ἡπρ ἰτῖρ κ ἰρ μοιρωλόγ'ο/σ (n) πῖ χρονοκράτ'ωρ/ r wε rmt ...*, ‘If you apportion the *chronokrator* for a man ...’ (see Menchetti, in: Devauchelle/Widmer [eds], Actes, 223, n. 5). *Μοιρωλόγος* is usually translated as ‘fortune teller’ (*vel sim.*), but in this instance the expression could be compared to the term *μοιρογραφία*, ‘tabulation of degrees’. Consequently, the colocation is perhaps better understood as ‘degree teller’ (*vel sim.*). That is, the sentence is then literally to be translated: ‘If you are a degree teller (of) the *chronokrator* for a man ...’.

³⁹ E.g., Ptol. *Tetr.* 4.10.4–12. The planets are given the following number of years: Moon: 4; Mercury: 10; Venus 8; Sun: 19; Mars: 15; Jupiter: 12; Saturn: the remainder of the lifetime. Another similar and widely attested system found in literary authors and even a magical papyrus (*PGM* IV 835–849) associates the planets with the following figures: Moon 25; Mercury 20; Venus: 8; Sun: 19; Mars: 15; Jupiter 12; Saturn: 30. The numbers are applied to months and are identical to the ‘minimal year’ (ἴδια or ἐλάχιστα ἔτη) assigned to the planets and used for calculating the lifespan of the native. These periods may derive ultimately from the synodic periods of each planet or multiples thereof (Neugebauer/van Hoesen, *Greek Horoscopes*, 10–11 and 12). Whether the same relations are taken into consideration in the present astrological system is not known, however.

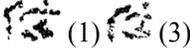
⁴⁰ E.g., Winkler, in: Steele (ed.), *Circulation of Astronomical Knowledge*, 251.

⁴¹ See, e.g., S. Heilen, *Short Time in Greco-Roman Astrology*, in: K.J. Miller/S.L. Symons (eds), *Down to the Hour: Short Time in the Ancient Mediterranean and the Near East*, TAC 8, Leiden 2020, 261.

⁴² Gieseler Greenbaum, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 460.

each occupy 22° in their respective zodiac signs, while Midheaven and Lower Midheaven occupy only 20°. In most of the texts published here, this relation is restored, but it is also attested in Horoscopes A–C.⁴³

Table 2: *The Four Centres*

Ascendant (<i>r^c</i>)- <i>ht^c</i>	 (1)  (3)	Descendant (<i>r^c</i>)- <i>htp</i>	 (1)  (3)
Lake of the Sky (<i>šy-n-tš</i>)- <i>p.t</i>	 (1)  (2)	Lake of the Netherworld (<i>šy-n-tš</i>)- <i>dwš.t</i>	 (1)

The digits following the facsimiles refer to the horoscope numbers.

Position of the Lots

The final astrological notations ideally consist nine additional points, which are set in relation to the zodiac signs. These points are best understood as the astrological lots (see Ch. 3.3–3.6 below), save for the ninth one, and can be provided with a precise longitude in degrees within a zodiac sign. Where preserved in the present corpus, this is generally the case for Lots 1–4, while Lots 5–8 are only given as whole sign entries. Lots 1–4 in Horoscope A and C lack defined exact longitudes, apparently having been simplified into whole sign lots. This also appears to be the case in Horoscope 2.

2.2 *Comparing Structures*

While there seems to be greater variety in the sophistication of Greek horoscopes throughout the first centuries AD, the published Egyptian ones after ca AD 50 are all so-called basic horoscopes. As stated above, they only provide the most rudimentary information needed to cast a nativity, with a few exceptions.⁴⁴ They begin with a date and time of birth. Then usually the positions of the Sun and the Moon are given in reference to whole signs.⁴⁵ The two luminaries are followed by the planets according to the order of the slowest to the fast moving one in relation to the same constellations. Until the end of the second century AD, the final element was usually the Ascendant, i.e. what zodiac sign was rising in the eastern horizon at the moment of birth. But in *O.Brookl.Dem.* 145, for instance, it is given before the positions of the planets were written down.

The Athribis horoscopes resemble, for instance, O.Glasg.Dem. 1925.96 or *O.Brookl.Dem.* 145, since all the positions of the planets were written out on individual lines. Across Egypt, however, another practice appears to have been more common in both Greek and Demotic horoscopes.⁴⁶ If more than one planet was in the same sign, the astrolo-

⁴³ Escolano-Poveda, JHA 53, 2022, 72.

⁴⁴ E.g., A. Jones, *Astrologers and Their Astronomy*, in: A. Bowman *et al.* (eds), *Oxyrhynchus: A City and Its Texts*, EES GRM 93, London 2007, 310–311; M. Ross, *A Provisional Conclusion to the Horoscopic Ostraca from Medīnet Mādī*, in: EVO 34, 2011, 75–79; Winkler, in: *Fs. Vleeming*, 306–307.

⁴⁵ By the end of the second century AD, the trend was to place the two luminaries after the enumerations of the planets (Neugebauer/van Hoesen, *Greek Horoscopes*, 163–164; Ross, in: EVO 29, 2006, 156–158).

⁴⁶ See, e.g., Jones, *Astronomical Papyri*, 1.249–297; Neugebauer/van Hoesen, *Greek Horoscopes*, 163–164.

gers usually did not repeat the zodiac sign when working through the positions. They rather transposed the second planet so that it was written on the same line as the first one (e.g., O.Berl. 6152; Griffith MSS 3.59; *PSI* XII 1276 = *SB* XVI 13013 [AD 32];⁴⁷ and *P.Oxy.* III 596 [AD 149]⁴⁸). Thus Mercury, for example, would be mentioned before Mars if it were found in the same zodiac sign as Saturn. This could save space when the longitudes or any other information were not noted.

Of the published Egyptian horoscopes, the ones dating to the reigns of Augustus and Tiberius display another structure. With the exception of the texts edited here, there seem to have existed two traditions of ordering the astrological information. One is represented by, for instance, *O.Neugeb.* 1–4, while the other is represented primarily by O.Glasg.Dem. 1925.96.⁴⁹

In the former tradition, which is attested at Thebes, the positions of the Sun and the Moon are given after the date. These are then followed by the four cardinal points (Ascendant, Descendant, Midheaven, and Lower Midheaven). Thereupon three *swšp* and two *twr* are noted in relation to the zodiac signs.⁵⁰ Then ideally the positions of the twelve places of the *Dodecatropos* are plotted, though only extant in one of the texts edited by Neugebauer: *O.Neugeb.* 3. The planets are inserted into these points and do not seem to follow any guiding principle for the structure as in the later horoscopes written in Egyptian.⁵¹

The other text mentioned, O.Glasg.Dem. 1925.96, which dates to AD 7, is also of Theban origin. It begins with a date and time of the birth before plotting out the positions of the planets. It does so in a more elaborate manner than most other horoscopes. Although the scribe seems to have conflated the positions of Venus and Mars, the standard Hellenistic order is used. If the position of a planet was the same as another one, they were still entered separately, not grouped together—probably for similar reasons as in the present texts. It is notable that the Sun and the Moon, as well as the Ascendant, appear not to have an entry of their own but were recorded after the planetary positions. Yet one must assume that they would have received separate entries if they were in a sign in which there was no other celestial body. Due to the fragmentary nature of the ostrakon, there are two positions after the five planets, lines twelve and thirteen, whose content remains unknown, but the

⁴⁷ Neugebauer/van Hoesen, *Greek Horoscopes*, 19.

⁴⁸ Neugebauer/van Hoesen, *Greek Horoscopes*, 45–46.

⁴⁹ Ross, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 515–518. See R. Gautschy, *Horoskope*, in: B. Janowski/D. Schwemer (eds), *Texte zur Wissenskultur*, TUAT N.F. 9, Gütersloh 2020, 373–374, for a recent translation of *O.Neugeb.* 3.

⁵⁰ First discussed by Neugebauer, in: *JAOS* 63, 1943, 118, with further elaborations by M. Ross, *All's DUR That Ends Twr*, in: M. Ross (ed.), *From the Banks of Euphrates: Studies in Honor of Alice Louise Slotsky*, Winona Lake IN 2008, 245–255; id., in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 516–517; Winkler, in: Steele (ed.), *Circulation of Astronomical Knowledge*, 250, n. 28. Judging by the attestations in the four horoscopes, these are terms indicating a triplicity and a quadruplicity which relate to the position of the Moon.

⁵¹ D. Gieseler Greenbaum/M. Ross, *The Role of Egypt in the Development of the Horoscope*, in: L. Bareš/F. Coppens/K. Smoláriková (eds), *Egypt in Transition: Social and Religious Development of Egypt in the First Millennium BCE*, Prague 2010, 152–153; see also Neugebauer, in: *JAOS* 63, 1943, 116–119; Ross, in: *Fs. Slotsky*, 245–247; id., in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 515–518; Winkler, in: *Fs. Vleeming*, 308.

two luminaries may have been mentioned here separately. Line six, which is only partially preserved, refers to a Full Moon, but the actual position is not present.⁵²

The Glasgow ostrakon thus displays a structure similar to the one found in the present corpus and the later demotic horoscopes. It can therefore be postulated that they form part of the same tradition, while the texts of *O.Neugeb.* 1–4 and *O.Leid.Dem.* 333 (1st cent. AD) belong to another one. They are perhaps to be regarded as outliers; most Greek horoscopes follow the previously mentioned structure.

These horoscopes, just as the great majority of similar texts in both Egyptian and Greek, as a rule leave out any comment regarding forecasts.⁵³ There are exceptions, however. *O.Glasg.Dem.* 1925.96 adds the remark (*n3*)-*nfr*-*f*, ‘It is beneficial’, to all entries.⁵⁴ The constellations at birth seem to have been good throughout; this is the only prediction given. It is possible that other examples of texts in the same tradition would have provided a remark such as (*n3*)-*b3n*-*f*, ‘It is maleficent’, or similar if the positions were less favourable. A related practice is displayed by *O.Leid.Dem.* 333. The text provides some proper forecasts among the enumeration of astrologically relevant points. For instance, on line x+5 one can read that the native will stay away from women early in his lifetime (*ḥr r.ir-fwy r s-ḥm.t (n)-ḥ.t*).⁵⁵ The last notation in Horoscope 1, on line 13, is perhaps also a sort of forecast.⁵⁶

3. The Celestial Bodies

3.1 Sun, Moon, and the Planets

Of the seven planets, the five proper ones and the two luminaries, only the latter two are written with orthographies that are well-attested elsewhere—clearly the hieratic forms were preferred—while for the names of the former, metonymic signs were generally used.⁵⁷ With

⁵² See Quack, in: *Enchoria* 31, 2008/2009, 105–106.

⁵³ *P.Oxy.* IV 804 discussed in Neugebauer/van Hoesen, *Greek Horoscopes*, 17, is a rare exception to this rule (see n. 8 above and 153 below). Other examples include *P.Oxy.Astron.* 4278 (4th/5th cent AD); *P.Princ.* II 75 (2nd cent. AD); and *PSI* IV 312 (AD 345) (Heilen, in: Bowen/Rochberg [eds], *Hellenistic Astronomy*, 493, n. 14). A few Greek texts also seem to make a general remark that the positions indicate a fortunate nativity. As mentioned in n. 12 above, the majority of the predictions of the so-called Old Coptic Horoscope are written in Egyptian, but the first forecasts are in fact in Greek. They were the work of the same scribe who made the calculations. It is possible that the Egyptian section too was written by this individual, but it is clear that he then at least changed his writing tool and ductus; a few Old Coptic signs appear in the Greek section. The forecasts found in the Old Coptic section clearly stem from astrological manuals that would have been composed in demotic (Winkler, in: Steele [ed.], *Circulation of Astronomical Knowledge*, 263–267). It may be noted that *P.Cairo* II 31222 possibly indicates something similar. The text has been understood as a horoscope for a year rather than being a proper manual (*P.Oxy.* LXV 4471: introd.). Some of the predictions seem to be mirrored almost word for word in the Greek texts of similar type, which should point to regular copying of the forecasts from manuals. A few so-called Babylonian horoscopes (F. Rochberg, *Babylonian Horoscopes*, TAPS n.s. 88/1, Philadelphia PA 1988, 51–142) also contain forecasts. These are horoscopes nos. 5, 9, 10, 16, and 27.

⁵⁴ Quack, in: *Enchoria* 31, 2008/2009, 108–110.

⁵⁵ See, e.g., P.Berl. 8345 i 5–6; ii 1–6; iii 8 (G.R. Hughes, *An Astrologer’s Handbook in Demotic Egyptian*, in: L. Lesko [ed.], *Egyptological Studies in Honor of Richard A. Parker*, Hanover, NH 1986, 53–69; J.F. Quack, *Demotische magische und divinatorische Texte*, in: B. Jankowski/G. Wilhelm [eds], *Omina, Orakel, Rituale und Beschwörungen*, TUAT n.F. IV, Gütersloh 2008, 368–370); P.Carlsberg 66 ii 4–6 (M. Chauveau, *Un traité d’astrologie en écriture démotique*, in: CRIPEL 14, 1992, 104). See also Ross, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 517.

⁵⁶ See the n. *ad loc.*

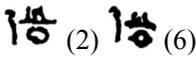
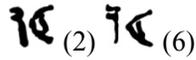
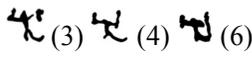
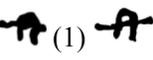
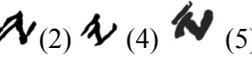
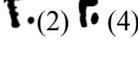
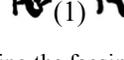
⁵⁷ See, e.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, pls. 3.58–64, for various writings of the planets in both hieroglyphic script and demotic. See also Quack, in: Brown (ed.), *Interactions of Ancient Astral*

regards to the planets, the signs can be taken as abbreviations in most cases; the sound value represented by each sign only conveys part of the name. For the three superior planets (Saturn, Jupiter, and Mars), the first element *hr-(p3)-* is not represented and has to be assumed. In the case of Venus, *p3-ntr-dw3*, only the first noun is employed to indicate the planet's name (see below), while in the case of Mercury, *sbk3*, a more metonymic principle is employed, not dissimilar to the second member of the names of the superior planets.

These writings can be regarded as an attempt at representing the five planets with symbols rather than spelling out their names. As mentioned, a similar phenomenon can be seen in the horoscopes from Narmouthis⁵⁸ and a few astronomical texts, such as P.Berl. 8279.⁵⁹ The tradition also found its way into a few astrological texts because it is also employed in, for instance, the so-called Sothis texts of *P.Cairo* II 31222.⁶⁰

Unlike the practice in the astronomical papyrus mentioned above, the names of the five proper planets (Table 3) are as a rule followed by a star determinative (not provided).

Table 3: The Planets

Planets	Writings	Transcription	Transliteration	Translation
Sun	 (2)  (6)		<i>p(3)-r^c</i>	Sun
Moon	 (2)  (6)		<i>iḥ</i>	Moon
Saturn	 (3)  (4)  (6)		<i>(hr-p3)-k3</i>	(Horus-the)-Bull
Jupiter	 (1)  (3)		<i>(hr-p3)-št3</i>	(Horus-the)-Mystery
Mars	 (2)  (4)  (5)	 (?)	<i>(hr)-tšy</i>	Red-(Horus)
Venus	 (2)  (4)		<i>ntr-(dw3)</i>	(Morning)-God
Mercury	 (1)  (2)		<i>sbk3/dḥwty</i>	Mercury/Thoth

The digits following the facsimiles refer to the horoscope numbers.

Science, 86–87; id., The Planets in Ancient Egypt, in: Oxford Research Encyclopedia of Planetary Science, Oxford 2019. Additional writings are also presented by M. Ross, Further Horoscopic Ostraca from Medīnet Mādi, in: EVO 32, 2009, 62–63.

⁵⁸ Ross, in: EVO 32, 2009, 62–62.

⁵⁹ O. Neugebauer, Egyptian Planetary Texts, TAPS n.s. 42, Philadelphia PA 1942, 247, for writings of the names of the planets in the sign entry almanac of P.Berl. 8279; Neugebauer/Parker, Egyptian Astronomical Texts, 3.225–240.

⁶⁰ G.R. Hughes, A Demotic Astrological Text, in: JNES 10, 1951, 256–264; J.F. Quack, “Assur Will Suffer:” Predicting Disaster in Ancient Egypt, in: G.J. Schenk (ed.), Historical Disaster Experiences: Towards a Comparative and Transcultural History of Disasters Across Asia and Europe, Cham 2017, 200–201; *P.Oxy.* LXV 4471: introd.

The writings of the Sun and the Moon are fairly standard, though the hieratic form of the Sun is less common in most other astronomical and astrological texts, while the Moon is regularly written with that script in such texts. In the corpus presented here, the Sun is once written in demotic (Horoscope 1), but not in the enumeration of its position at the date of birth.

The sign used to write the name of Saturn (*hr-pꜣ-kꜣ*) is the standing-man-with-raised-arms hieroglyph (A28).⁶¹ The sign must be taken as representing the phonetic value *kꜣ*,⁶² the raised arms of the figure corresponding to 𓀀 (D28). There are hieroglyphic writings of the planet's name that use the same sign, but this has been explained as a copying error from a hieratic source. Thus, they are not connected to the current writing.⁶³ The scribe of Horoscope 6 extended the right arm of the figure, which makes it resemble a man carrying a cane (see Table 3). It is potentially an intentional addition: the planet is associated with old age.

The sign used to write the name of Jupiter is the hobble-for-cattle (V19). One of the sound values of the sign in the Graeco-Roman period is *štꜣ*,⁶⁴ which is taken as an element of the name of the planet (*hr-pꜣ-štꜣ*).⁶⁵ The reason for the use of this sign ought to be that the hobble restrains activity, making it difficult for cattle to move and thus alludes to the root *štꜣ*, 'secret', 'mystery', or similar. The word *štꜣ*, 'secret', can be written with this sign as determinative. This is the case in, for instance, P.Mag. xi 4 and xix 34.⁶⁶ More notably, however, the same sign is used to write the planet's name (*hr-(pꜣ)-štꜣ*) in the papyrus: 𓆏𓆏𓆏 (xx 22).

Mars is usually called *hr-tšy* (*vel sim.*), 'Red Horus'.⁶⁷ The planet is here represented by an enigmatic group, which tentatively can be understood as an alternative hieratic version of the arrow sign (T11).⁶⁸ O.Stras.Dem. 521,⁶⁹ which contains a list of the five planets and

⁶¹ Möller, *Paläographie*, 3.1; Verhoeven, *Untersuchungen*, 106–107.

⁶² F. Daumas, *Valeurs phonétiques des signes hiéroglyphiques d'époque gréco-romaine*, Montpellier 1988–1995, 6; D. Kurth, *Einführung ins Ptolemäische*, Hützel 2008, 1.127.

⁶³ Neugebauer/Parker, *Egyptian Astronomical Texts*, pls. 3.59–60.

⁶⁴ Daumas, *Valeurs phonétiques*, 750; Kurth, *Einführung*, 1.416.

⁶⁵ Neugebauer/Parker, *Egyptian Astronomical Texts*, pls. 3.61–62. See also J.F. Quack, *Eine unetymologische Schreibung für den Namen des Planeten Jupiter*, in: *Enchoria* 21, 1994, 148–149; K. Goebis, „Horus der Kaufmann“ als Name des Planeten Jupiter, in: *Enchoria* 22, 1995, 218–221. An unusual version of the planet's name is found in P.Berl. 13146–7 rto. 𓆏𓆏𓆏 (O. Neugebauer/R.A. Parker/K.-Th. Zauzich, *A Demotic Lunar Eclipse Text of the First Century B.C.*, in: *PAPS* 125/4, 1981, 320). The last sign is perhaps to be read as *hr*: *hr-pꜣ-s-hꜣ*. Such a reading is closer to the more common name of the planet than the solution presented in the *ed.pr.* of the papyrus.

⁶⁶ See, e.g., Erichsen, *Glossar*, 526.

⁶⁷ Neugebauer/Parker, *Egyptian Astronomical Texts*, pls. 3.61–62. Add: P.Mag. xxi 10 (R. Ritner, *Gleanings from Magical Texts*, in: *Enchoria* 14, 1986, 102–103), where the second member of the collocation is written with a hieratic version of the fish hieroglyph K2 (see Verhoeven, *Untersuchungen*, 150–151), with the phonetic value of *dšr* (Kurth, *Einführung*, 1.295). A similar writing is known to me from P.Carlsberg 104. See also F. Cumont, *Le nom des planètes et l'astrolatrie chez les Grecs*, in: *L'antiquité classique* 4, 1935, 17.

⁶⁸ Möller, *Paläographie*, 3.39; Verhoeven, *Untersuchungen*, 184–185. I am grateful to Joachim F. Quack for this suggestion.

⁶⁹ Neugebauer, in: *JAOS* 63, 1943, 121–122. The text was originally published by W. Spiegelberg, *Ein ägyptisches Verzeichnis der Planeten und Tierkreisbilder*, in: *OLZ* 5, 1902, 6–9. See also M. Müller, *Zu dem neuen Strassburger astronomischen Schultext*, in: *OLZ* 5, 1902, 135–136. The text is also discussed extensively by Quack, in: *Brown, Interactions of Ancient Astral Science*, 82 and 86–88.

the gods with which they were identified, ascribes Mars to Miysis (*ḥr-tšy pꜣ syw n mꜣy-ḥs pꜣy*), a leonine deity of pestilence.⁷⁰ The divinity is occasionally depicted as carrying a knife or a sword.⁷¹ The latter emblem can explain the occasional writing of the planet Mars with such a tool  (T30),⁷² alone or even as part of the determinatives. The element can also be part of the collocation *ḥr-tšy*:  (Griffith MSS 3.59). This suggests that the knife hieroglyph can be read as *tšy*.⁷³ The arrow, if such is the reading, would thus likely have acquired the same value. The weapon can also be associated with powers spreading pestilence, and the sign would in that case function as a variant metonymic writing to connect Mars with Miysis.

Venus, *ntr-dwꜣ*, is, as already mentioned, represented by the cloth-wound-on-a-pole hieroglyph, usually read as *ntr* (R8),⁷⁴ followed by a star. The writing thus serves as an abbreviation of the planet's full name.⁷⁵ In a few other texts relating to astrology from, for instance, Narmouthis, it has been suggested that this very sign may be used for Jupiter;⁷⁶  is the common writing of Venus in the horoscopes at the site.⁷⁷ However, what appears to be the demotic cloth-wound-on-a-pole hieroglyph  is conflated with the demotic writing for wind, a sail:  (*vel sim.*). The common orthography of Jupiter at Narmouthis is  (*vel sim.*),⁷⁸ which clearly is a local writing of  (P5). The planet can occasionally also be written with the sign . Even if the writing could represent  with the addition of a horizontal base line, it is preferable to take it as another version of the sail sign. The latter is also found in a few other texts of similar nature from the Fayum, for instance, P.Berl. 8279 and P.Cairo II 31222.⁷⁹ It may, furthermore, be noted that in P.CtYBR inv. 1132⁸⁰ from Tebtunis

⁷⁰ E.g., Quack, Planets in Ancient Egypt; id. in: Brown (ed.), *Interactions of Ancient Astral Science*, 86–87.

⁷¹ LGG III, 211–212, s.v. *mꜣi-ḥs*.

⁷² E.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, pl. 3.62. Note that the first element of the name of Miysis can be written with a knife, for instance, in P.Mag. ix 21 (e.g., Erichsen, *Glossar*, 331). The same sign can also be used to write the name of Leo (*mꜣy*) (e.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.218). It is probable that the writing came about as a metonym for Mars referring to Miysis (see n. 71 above) and subsequently to anything leonine, at least in astrological and astronomical contexts (cf. F. Boll, *Sphaera: Neue griechische Texte und Untersuchungen zur Geschichte der Sternbilder*, Leipzig 1903, 223).

⁷³ Kurth, *Enführung*, 1.395.

⁷⁴ Verhoeven, *Untersuchungen*, 176–177 and 244. The star determinative invites speculation as to whether it can be read as a haplography, serving the role of both the second element *dwꜣ* and a determinative. Nevertheless, as such techniques cannot easily be found in any of the other writings for planetary names in this corpus, this consideration was probably not shared by the scribes of these horoscopes.

⁷⁵ Winkler, in: Fs. Vleeming, 303, n. 34.

⁷⁶ So, e.g., A. Menchetti/R. Pintaudi, *Ostraca greci e bilingui da Narmuthis*, CdÉ 82, 2007, 239–241; Neugebauer/Parker, in: JEA 54, 1968, 232.

⁷⁷ Neugebauer, *Egyptian Planetary Texts*, 247, understood the sign as the numeral 9, an unetymological writing of *psd*, ‘shining one’, while Quack, in: Brown (ed.), *Interactions of Ancient Astral Science*, 78, suggests that the sign represents a Demotic variant of the lotus sign (M9), which can be read as *dwꜣ*. The latter proposal appears to be the most convincing one. Ross, in: EVO 32, 2009, 63, proposed to read the sign as *ntr:t* but does not provide any arguments for the interpretation.

⁷⁸ Ross, in: EVO 32, 2009, 62–63.

⁷⁹ J. Dieleman, *Priests, Tongues, and Rites: The London-Leiden Magical Manuscripts and Translation in Egyptian Ritual (100–300 CE)*, RGRW 153, Leiden 2005, 159, n. 35.

⁸⁰ B. Bohleke, *In Terms of Fate: A Survey of the Indigenous Egyptian Contribution to Ancient Astrology in Light of Papyrus CtYBR inv. 1132(B)*, in: SAK 23, 1996, 11–46; L. Depuydt, *A Demotic Table of Terms*, in: *Enchoria* 21, 1994, 1–9; see also Winkler, in: Steele [ed.], *Circulation of Astronomical Knowledge*, 261–262.

the name of Jupiter is written with the sail determinative: $\text{𓂏} \text{𓂏} \text{𓂏}$. The connection between the god of wind and Jupiter is made explicit in O.Strasb.Dem. 521, which states that the planet is the Star of Amun (*hr-šty pꜣ syw n imn pꜣy*).⁸¹

In the Graeco-Roman period Mercury was connected with Thoth, the god of wisdom and learning. This is demonstrated by, for instance, O.Stras.Dem. 521, which mentions the planet as the Star of Thoth (*sbkꜣ pꜣ syw n dhwtꜣ pꜣy*). The roots of this association are found in Mesopotamia, where the planet was connected to the god of wisdom, Nabu,⁸² who corresponded in turn to Hermes/Mercury in the classical tradition. In this corpus, the heart hieroglyph 𓃀 (F34) is used to write the name of Mercury.⁸³ This writing depends on the fact that this divinity can be styled as the heart of the sun god, Re.⁸⁴ The same concept is reflected in the fact that the god in his Greek guise, Hermes, can be referred to as ἐγκάρδιος.⁸⁵ For the Egyptian writing system this implied that the ibis hieroglyph (G26A)—one of Thoth's emblematic animals—could be employed to write the word *ib*, 'heart'.⁸⁶ Since the ibis could be used in this way, it is evident that the reverse was also the case. The heart sign could be used to designate the god, and thus also the planet.⁸⁷ The writing of Mercury with the demotic book-roll sign 𓂏 functions on an analogous principle.⁸⁸ It serves as a metonym for Thoth, because of the god's association with the scribal arts.⁸⁹ A parallel case would be the writing of Jupiter with the sail sign, which refers to Amun as a god of winds.⁹⁰

The interpretation of the signs for most of the planets is fairly straightforward, but there are a few options for the reading of the names of Mars and Mercury. One could assume that the signs used were ideographic writings for their common names, albeit abbreviated in the case of Mars, similarly to how Saturn, Jupiter, and Venus are to be understood. Alternative-

⁸¹ See D. Klotz, *Caesar in the City of Amun: Egyptian Temple Construction and Theology in Roman Thebes*, MRE 15, Turnhout 2012, 61–62; K. Sethe, *Amun und die acht Urgötter von Hermopolis: eine Untersuchung über Ursprung und Wesen des ägyptischen Götterkönigs*, APAW Hist.-Phil. Kl. 29, Berlin 1929, 90–102, for Amun as a god of winds.

⁸² E.g., Quack, *Planets in Ancient Egypt*; id., in: Brown (ed.), *Interactions of Ancient Astral Science*, 86–87. See also Ross, in: EVO 32, 2009, 63.

⁸³ Winkler, in: Fs. Vleeming, 303, n. 34.

⁸⁴ E.g., LGG I, 208–209, s.v. *ib-n-r*; M.-Th. Derchain-Urtel, *Thot à travers ses épithètes dans les scènes d'offrandes des temples d'époque gréco-romaine*, RitÉg. 3, Brussels 1981, 81–94; E. Iversen, *Papyrus Carlsberg No. VII: Fragments of a Hieroglyphic Dictionary*, KVDS Hist.-Fil. Skr. 3/2, Copenhagen 1958, 16–17; H. De Meulenaere, *Les valeurs du signe 𓃀 à la Basse-Époque*, in: BIFAO 54, 1954, 75; J.F. Quack, *Ein alphabetisch sortiertes handbuch der Hieroglyphenzeichen*, in: K. Ryholt (ed.), *Hieratic Texts from Tebtunis Including a Survey of Illustrated Papyri*, CNIP 45, Copenhagen 2020, 82; Ritner, in: *Enchoria* 14, 1986, 96; S. Sauneron, *La légende des sept propos de Methyer au temple d'Esna*, in: BSFE 32, 1961, 47 (*Esna* III 332.23); Y. Volokhine, *Le dieu Thot et la parole*, in: RHR 221, 2004, 140–142. See also Horapollon I 36 (J. Vergote/B. van de Walle, *Traduction des Hieroglyphica d'Horapollon*, in: CdÉ 18, 1943, 69; P.W. van der Horst, *Chaeremon, Egyptian Priest and Stoic Philosopher*, EPRO 101, Leiden 1987, 73; H.-J. Thissen, *Des Niloten Horapollon Hieroglyphenbuch I*, AfP Beih. 6, Munich 2001, 24–25).

⁸⁵ *PGM* V 400; VII 668; and XVIIb 1. The attestations are all found in various versions of the same text.

⁸⁶ Kurth, *Einführung*, 1.251–252.

⁸⁷ Another association for the heart is also possible. Since the sign was pronounced as *ip* in the given period (e.g., D. Klotz, *Replicas of Shu: On the Theological Significance of Naophorous and Theophorous Statues*, in: BIFAO 114, 2014, 312), the writing may have evoked a connection to the verb *ip*, 'to calculate', an activity tightly connected to Thoth.

⁸⁸ Ross, in: EVO 32, 2009, 63. It also appears in, for instance, P.Berl. 8279 and *P.Cairo* II 31222.

⁸⁹ E.g., H. Bonnet, *Reallexikon der ägyptischen Religionsgeschichte*, Berlin 2000, 808–809.

⁹⁰ See n. 81 above.

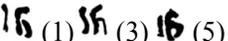
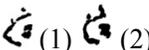
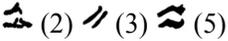
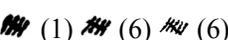
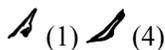
ly, the two planets may have been represented by the god with which they were identified. The texts do not provide any further clues to guide interpretation. Yet, as the designations of other planets are written with a sign that can be taken as a phonetic rendering of one element of their names, the reading of Mars as (*hr*)-*tšy* and Mercury as *sbkz* has been preferred. The writing of Mars in Griffith MSS 3.59 supports this interpretation. The metonymic element takes the phonetic value of the typical second member of the collocation *hr-tšy*.

3.2 The Zodiac Signs

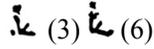
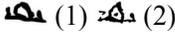
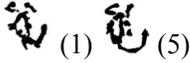
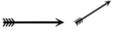
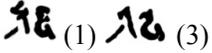
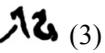
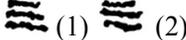
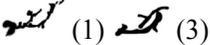
The writings of the twelve zodiac signs in this corpus follow in part the same principles as those of the planets.⁹¹ Some of the signs are written with what can be labelled a ‘metonymic script’, while others conform to standards known from elsewhere. Leo (*mzy*) is written with the knife (T30), and Taurus (*kz*) is represented by the standard hieratic form of the bull (E1). Some signs, e.g., Aries and Aquarius, appear to be written in one way only, while others are represented by more than one symbol or variations thereof. This is the case with, for instance, Gemini and Sagittarius.

It is possible that the choice of symbols to indicate a zodiac sign was up to the astrologer, who could select from a limited repertoire of writings. As a rule, in each text the same orthography is used for one and the same zodiac sign. The system of writing these resembles that of the astronomical texts, where usually only one hieroglyph is employed to refer to each of the zodiac signs (Table 4), the only difference being that the latter texts do not always use the star determinative, which is the case in the present corpus.

Table 4: The Zodiac Signs

Sign	Writing	Transcription	Transliteration	Translation
Aries	 (1)  (3)  (5)		<i>isw/tpy</i>	Ram/First One
Taurus	 (1)  (2)		<i>kz</i>	Bull
Gemini	 (2)  (3)  (5)		<i>htr(.w)</i>	Twins
Cancer	 (1)  (6)  (6)		<i>gnhd</i>	Crab
Leo	 (1)  (4)		<i>mzy</i>	Lion

⁹¹ Earlier studies of the writings and interpretations of the zodiac signs in Egyptian include in chronological order: W. Spiegelberg, Die ägyptischen Namen und Zeichen der Tierkreisbilder in demotischer Schrift, in: ZÄS 48, 1911, 146–151; Neugebauer, Egyptian Planetary Texts, 247; Neugebauer, in: JAOS 63, 1943, pls. 2–3; Neugebauer/Parker, Egyptian Astronomical Texts, 3.218–219; R.A. Parker, A Horoscopic Text in Triplicate, in: H. Thissen/K.-Th. Zauzich (eds), Grammata demotica: Festschrift für Erich Lüddeckens zum 15. Juni 1983, Sommerhausen 1984, 143; A. von Lieven, Divination in Ägypten, in: AoF 26, 1999, 125–126; Ross, in: EVO 29, 2006, 153–155; Ossendrijver/Winkler, in: Fs. Rochberg, 393–396. See also A. von Lieven, Die dritte Reihe der Dekane oder Tradition und Innovation in der Spätägyptischen Religion, in: ARG 2, 2000, 26, n. 24. F. Hoffmann, Astronomische und astrologische Kleinigkeiten IV: Ein Zeichen für „Null“ im P. Carlsberg 31?, in: Enchoria 29, 2004/2005, 51, n. 47.

Virgo	 (3)  (6)		<i>rpy.t</i>	Noble Lady
Libra	 (1)  (2)		<i>šh.t</i>	Horizon
Scorpio	 (1)  (5)		<i>dlb.t</i>	Scorpion
Sagittarius	 (1)  (2)  (4)		<i>pš-nty-šth</i>	The One who Draws
Capricorn	 (1)  (3)		<i>hr-nh</i>	Goat Face
Aquarius	 (1)  (2)		<i>mw</i>	Water
Pisces	 (1)  (3)		<i>tbt(.w)</i>	Fish(es)

The digits following the facsimiles refer to the horoscope numbers.

Aries (*šw*) is traditionally written with mono-consonantal signs or with the hieratic cowhide sign (F27).⁹² In this set of texts, however, the sign for Aries is the hieratic writing of the profile-of-a-head hieroglyph (D1).⁹³ This orthography make sense because Aries is regarded as the first zodiac sign in the Babylonian and Hellenistic enumeration of the zodiac. The Sun rose in the sign during the vernal equinox.⁹⁴ It is unclear whether the standard reading (*tpy*) should be employed here, which then would function as an alternative name for the sign, ‘First One’, or whether it took an ideographic function, and thus should be read as *šw*. For the sake of simplicity, the latter option is preferred (cf. the writing for *gnhd*, ‘Cancer’, below).

The second zodiac sign, Taurus (*kr*), is in all instances written with the hieratic group of the bull hieroglyph (E1) against the more common practice in other horoscopes, which as a rule contain the Demotic rendering of the name.⁹⁵

Gemini (*htr(.w)*) is written in three different ways in the present corpus. The most common spelling in this group of texts is two slanting strokes (e.g., Horoscope 1). This orthography ought to be an abbreviation of the more common demotic writing  (vel sim.). It is probable that it refers to the divine couple Shu (*šw*) and Tefnut (*tfn.t*), who can represent Gemini in monumental zodiacs: . It cannot be excluded, however, that the two strokes in the horoscopes represent a shorthand writing for one of the other variants found in the corpus. The second option that the astrologer could employ to write the name of Gemini was a pair of eyes in hieratic (Horoscope 2).⁹⁶ Not only are the two eyes a pair, which resonates

⁹² Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.218.

⁹³ Verhoeven, *Untersuchungen*, 114–115.

⁹⁴ Neugebauer/van Hoesen, *Greek Horoscopes*, 4.

⁹⁵ Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.218.

⁹⁶ Verhoeven, *Untersuchungen*, 114–115. It is possible that the second writing of this zodiac sign found its way into the Medieval tradition where two horizontal strokes can be found (see Neugebauer, in: *JAOS* 63, 1943, pl. 2). The latter would be directly derived from the common demotic sign, while the abbreviation, two slanting strokes, would be the forerunner to the two horizontal strokes. References to earlier discussions regarding the transfer of the Egyptian symbols of the zodiac signs into medieval manuscripts are summarised by M. Escolano-

well with the meaning of *htr(w)*, ‘twins’, but it is also conceivable that the writing, similarly to the one above, alludes to Shu and Tefnut. In addition to their depiction as a twin couple, the two sibling deities can also be referred to as the eyes of the creator god.⁹⁷ The third option available to the astrologer is closely related to the second one. The name of the zodiac sign could be written with two eyebrows (D13).⁹⁸ The spelling of the zodiac sign with two stars in *P. Cairo* II 31222 reflects a similar way of thinking.

Cancer (*gnhd vel sim.*) in the present corpus is uniformly written with the hieratic form of the backbones-and-ribs hieroglyph (F37), a downward- and left-slanting, nearly horizontal stroke intersected by four or five short vertical crossbars.⁹⁹ The sign has no attested phonetic resemblance to the Egyptian word in question.¹⁰⁰ It is possible that the shape of the hieroglyph brought the animal to mind,¹⁰¹ the vertical crossbars representing the feet of the crab and the backbone its body.¹⁰²

Leo (*mzy*) is written with the knife sign (T30) followed by a star determinative.¹⁰³ While the latter is known from, for instance, the Stobart Tables and *P. Mag.*, the sign can often in other texts be written with the *mz*-sickle as the main sign of the group.¹⁰⁴ Virgo (*rpy.t*), lit. ‘noble lady’, appears throughout the corpus with the same group as found in other texts of a similar kind, the hieratic sign of seated-woman-with-a-diadem-holding-a-flower (B7).¹⁰⁵ The same can be said of Libra (*sh.t*), lit. ‘horizon’. As in most other texts of astrological or astronomical nature,¹⁰⁶ the zodiac sign is written with the horizon hieroglyph (N27), but

Poveda, *Astronomica Montserratensia I: A Demotic Monthly Almanac with Synodic Phenomena*, in: *Enchoria* 36, 2018/2019, 30–31.

⁹⁷ E.g., Bonnet, *Reallexikon*, 686 and 772.

⁹⁸ Verhoeven, *Untersuchungen*, 116–117.

⁹⁹ Verhoeven, *Untersuchungen*, 132–133.

¹⁰⁰ See Daumas, *Valeur phonétiques*, 279–280; Kurth, *Einführung*, 1.227.

¹⁰¹ The early Medieval symbol for this sign seems to be inspired by the crab hieroglyph occasionally found in some of the demotic manuscripts.

¹⁰² A speculative suggestion as to the usage of this sign may be that the ribs could be associated with the sides of the body, alternatively the neck, among other body parts. In astral medicine, each zodiac sign was connected to one or more body parts. Aries was related to the head, and this function could in theory be underlined by the choice of writing. In one tradition, Gemini represent the eyes (see, e.g., J. Wee, *Discovery of the Zodiac Man in Cuneiform*, in: *JCS* 67, 2015, 220–222), which would fit with some of the orthographies employed in this corpus. But the association is not the standard one. Potentially the connection depends on the fact that the sign could be written with the eyes. In any case, the ribs perhaps alluded to the sides of the torso or the neck, which were both part of the domain of Cancer. Nevertheless, such an interpretation is difficult to make for the remaining signs.

¹⁰³ See n. 72 above.

¹⁰⁴ Ross, in: *EVO* 29, 2006, 152, suggests that the local orthography of Leo (*my*) in Narmouthis $\overline{\text{L}}$ is to be understood as the demotic writing of the *mz*-feather (H6). The sign would have been used because it alluded to words that were near-homophones with the Egyptian name for the zodiac sign. It is possible, however, that the sign in the horoscopic ostraca from Narmouthis represents a vertical version of the *mz*-sickle, to avoid conflation with $\overline{\text{V}}$ used for Venus (see n. 77 above).

¹⁰⁵ Verhoeven, *Untersuchungen*, 110–111.

¹⁰⁶ E.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.219.

quite often the name is also spelled out.¹⁰⁷ Throughout this corpus—as in a few other texts of a similar kind—the Scorpio (*db.t*) is written with the scorpion hieroglyph (L19).¹⁰⁸

Sagittarius (*pꜣ-nty-ꜣth*, lit. ‘the one who draws’) is written with the arrow sign functioning as *pars pro toto* for the full spelling. It is either a version commonly found in demotic texts or a hieratic variant thereof. The latter resembles the writings of this zodiac sign found in, for instance, the Stobart Tables.¹⁰⁹ The other version depicting an arrow pointing upwards to the right is also found in, for instance, the Narmouthis horoscopes.¹¹⁰

Capricorn (*hr-nh*, lit. ‘goat face’) is written with the hieratic frontal-face hieroglyph (D2) plus one that at first glance resembles the demotic phallus sign.¹¹¹ But such a reading can hardly be correct.¹¹² The second member of the collocation is better understood as the abbreviated hieratic writing of ,¹¹³ i.e. the regular hieratic sign followed by a short left- and downward-leaning stroke, which usually represents the other two signs. The group should not, however, be read as *nh-wꜣ-snb*, but only as *nh* (S34).¹¹⁴ Capricorn can also be written with only the frontal-face hieroglyph (e.g. Horoscope B).

Aquarius, which is usually simply *mw* in Egyptian, is most often written with the hieratic water hieroglyph or the demotic equivalent.¹¹⁵ Alternatively it can be called the ‘Image of the Water’ (*twtw-n-pꜣ-mw*).¹¹⁶ Here it is represented by the simpler form in line with the other zodiac signs and planets, and written with the hieratic group.¹¹⁷

Finally, Pisces (*tbt(.w)*) is a hieratic depiction of a fish (K3).¹¹⁸

¹⁰⁷ It has long been known that the Egyptian sign for Horizon is the precursor of the most common symbol for Libra found in Medieval manuscripts (Neugebauer, in: JAOS 63, 1943, 122).

¹⁰⁸ E.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.219. The hieroglyph of the scorpion rarely appears in demotic horoscopes as a writing of Scorpio (e.g., *O.Neugeb.* 5 [1st cent. AD]). The snake sign, on the other hand, is commonly associated with Scorpio and functions on its own or as a determinative to the phonetic writing *db.t*. Even if the scorpion hieroglyph can take the phonetic value *whꜣ* (Kurth, *Einführung*, 1.298) rendered in demotic as *why.t*, ‘scorpion’, such a reading does not seem viable in the astrological corpus. Both signs appear in astrological writings from several localities, such as Thebes and Tebtunis. It is hardly credible that the same zodiac constellation would go by two different names, unless there were corpus-specific deviation. The reason for the popularity of the snake sign *in lieu* of the scorpion may have to do with the fact that it is easier to write.

¹⁰⁹ E.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.219.

¹¹⁰ Almost needless to say, this sign also has a direct derivative in the Medieval and later traditions.

¹¹¹ The writing of the second element in the collocation used here appears to have been taken over by astrologers in the early Medieval period (Neugebauer, in: JAOS 63, 1943, pl. 3).

¹¹² Even if a phallus sign could be understood as conveying words pertaining to life (see Daumas, *Valeurs phonétiques*, 196–198; Kurth, *Einführung*, 1.175–176), thus making the sound value *nh* possible, the fact that Capricorn is a feminine sign in the ancient classification of signs makes such a reading less probable. That this division of signs into male and female ones was known in Egyptian texts of an astrological nature is proven by *P. Carlsberg XI 10* (K. Ryholt/J.F. Quack, *Petese Interpreting Astrology by Imhotep for King Nechepsos*, in: K. Ryholt/J.F. Quack [eds], *Demotic Literary Texts from Tebtunis and Beyond*, CNIP 36, Copenhagen 2019, 176–177).

¹¹³ Möller, *Paläographie*, 3.51 and 3.67; Verhoeven, *Untersuchungen*, 222–223 and 244.

¹¹⁴ Cf. Neugebauer, in: JAOS 63, 1943, pl. 3.

¹¹⁵ Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.219.

¹¹⁶ See, e.g., Erichsen, *Glossar*, 155; Ossendrijver/Winkler, in: *Fs. Rochberg*, 396.

¹¹⁷ The three strokes must also be directly related to the two more wavy ones found in the Medieval texts.

¹¹⁸ In other texts, for instance, the astronomical procedure text of ANAsh.Mus.D.O. 483 (Ossendrijver/Winkler, in: *Fs. Rochberg*, 386–388 and 394), other hieratic signs representing other fishes, e.g.,  (K1) or  (K2) (Verhoeven, *Untersuchungen*, 150–151) are be used. Furthermore,  is also employed to write the name of Pisces in Egyptian (e.g., Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.219). The

3.3 *The Lots and Another Point*

After all the basic information usually found in a horoscope, including the four cardines (Ascendant, Descendant, Midheaven, and Lower Midheaven), has been supplied, nine additional points in the sky relating to the zodiac are provided. These are not the places of the *Dodecatropos*, which are found in some of the earlier horoscopes from Egypt, though their names can correspond to this system (see Ch. 3.5 below). The additional points can coincide with a homonymous *locus* (e.g., Horoscope 1), but usually do not. Furthermore, there is no fixed linear correspondence between the four cardines and these additional points. This is indicated in particular by the fact that the longitudes for some of these points are provided. They are, therefore, better understood as lots, typically κληροι in Greek.¹¹⁹ Some of these lots are calculated according to the same principles as found in Greek and Latin works on astrology (see Ch. 3.4 below), but seemingly not all, and the number of lots also does not agree with the common number in the standard Greek and Latin traditions.¹²⁰

The eight lots are arranged in four pairs; Lot 1 and 2 are 180° opposite each other, and so are nos 3 and 4, 5 and 6, and 7 and 8. While the first two pairs are usually specified down to the exact longitude, the two latter are opposite one another in respect to whole signs. The ninth and last point does not have a counterpart 180° opposite it. Unlike the lots, it is as a rule written with a star determinative, which signifies a different status.

Lots 4, 6, and 8 are all explicitly viewed as possessing negative qualities. They are written with the fallen-enemy determinative. It is to be assumed, therefore, that the same applies to Lot 2, even if it is written without such a determinative. The fact that the eight lots—four with seemingly positive qualities and four with seemingly negative ones—are arranged opposite one another and correspond to the number of non-cardinal *loci* in the system of the *Dodecatropos* indicates that they were connected to this concept (see Ch. 3.5–3.6 below).

As with the names of the planets and the zodiac signs, the terms designating the various lots are mostly written employing hieratic signs. But lots 4 and 6, that is, *wrꜣ(.t)*, ‘Misfortune’,¹²¹ and *mwt*, ‘Death’, are written in demotic. The lots are listed in Table 5.

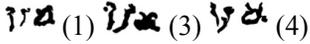
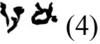
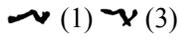
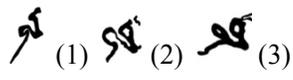
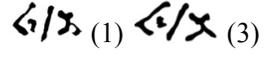
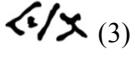
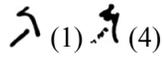
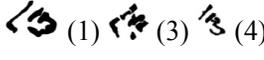
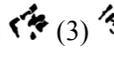
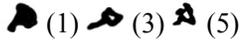
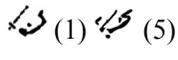
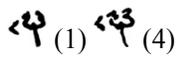
sign can be interpreted in two ways: the most probable is to take it as a fish determinative, but it is possible to read it as a hieratic version of the sandal hieroglyph (S33); phonetically the two words would fit fairly well with each other.

¹¹⁹ E.g., Bouché-Leclercq, *Astrologie grecque*, 288–297; D. Gieseler Greenbaum, *The Daimon in Hellenistic Astrology: Origins and Influence*, AMD 11, Leiden 2016, 6–7 *et passim*; Heilen, “Hadriani genitura”, 1158–1182; Neugebauer/van Hoesen, *Greek Horoscopes*, 8–9.

¹²⁰ See, e.g., Gieseler Greenbaum, *Daimon*, 356–378; Heilen, “Hadriani genitura”, 1158–1182. There are a number of lots calculated by the classical astrologers (see, e.g., Winkler, in: JHA 52, 337, n. 28) that impact various aspects of the native’s life and could potentially be equivalent to some of the areas of influence of Lots 5–8. Nevertheless, the methods of establishing these points do not seem to fit the positions in the ostraca.

¹²¹ Lit. ‘Great One’.

Table 5: The Lots and the Conjunction

No	Writing	Transcription	Transliteration	Translation
1	 (1)  (3)  (4)		<i>šw</i>	<i>Daimon</i>
2	 (1)  (3)		<i>šsr</i>	Evil <i>Daimon</i>
3	 (1)  (2)  (3)		<i>špšy.t</i>	Fortune
4	 (1)  (3)		<i>wr3(.t)</i>	Misfortune
5	 (1)  (4)		<i>nh</i>	Life
6	 (1)  (3)  (4)		<i>mwt</i>	Death
7	 (1)  (3)  (5)		<i>hr(.w)</i>	Flesh/Limb(s)
8	 (1)  (5)		<i>(y)rb(.t)</i>	Illness
9	 (1)  (4)		<i>šhn.t</i>	Conjunction

The digits following the facsimiles refer to the horoscope numbers.

The reading of the first lot *šw*, ‘*Daimon*’ or ‘Fate’,¹²² aligns well with standard Graeco-Roman hieroglyphic writings of the word in question.¹²³ *šw* is often written with the pustule hieroglyph (Aa2) followed by a snake determinative (I14). Here the last group is the hieratic coil sign (Z7) representing the sound *w* followed by a divine determinative (G7).¹²⁴ A similar determinative is also found in, for instance, O.Glasg.Dem. 1925.96.

The sign representing *šsr*, ‘Evil *Daimon*’, is the arrow hieroglyph (T11),¹²⁵ which can acquire the phonetic value *šsr* or *šhr* in the Graeco-Roman period. The word designating the entity which lends its name to the lot has often been taken as an old *s*-causative of *hr*, ‘fall’,¹²⁶ but a more recent suggestion is to understand it as deriving from *šsr*, ‘arrow’, via a metathesis of the two sibilants.¹²⁷ The arrow is also employed for the writing of Sagittarius, but then another orthography is used. The reason may be that two separate signs were chosen so as not to conflate the two entities.

¹²² See LGG VII, 4–8, s.v. *šy*.

¹²³ Wb. IV, 402; J. Quaegebeur, *Le dieu égyptien Shaï dans la religion et l'onomastique*, OLA 2, Leuven 1975, 46–57, esp. 55–57; P. Wilson, *A Ptolemaic Lexicon: A Lexicographical Study of the Texts in the Edfu Temple*, OLA 78, Leuven 1997, 989. See Daumas, *Valeurs phonétiques*, 290; Verhoeven, *Untersuchungen*, 200–201 and 208–209.

¹²⁴ Daumas, *Valeurs phonétiques*, 791; Kurth, *Einführung*, 1.426; Wb. IV, 409.

¹²⁵ Möller, *Paläographie*, 3.42; Verhoeven, *Untersuchungen*, 184–185.

¹²⁶ E.g., A. Volten, *Das demotische Weisheitsbuch*, AnAeg 2, Copenhagen 1941, 98–99.

¹²⁷ A. von Lieven, *Der Himmel über Esna: Eine Fallstudie zur Religiösen Astronomie in Ägypten*, ÄA 64, Wiesbaden 2000, 156. See also L.M. Azzam, *Šsr and Wšy: Two Ancient Egyptian Demons*, in: GM 227, 2010, 9–13.

Špšy.t, ‘Fortune’ or ‘Noble Lady’,¹²⁸ often transliterated as špsy.t in hieroglyphic texts, is as a rule written with various snake determinatives in demotic and hieratic manuscripts, but rarely with a cobra. In Graeco-Roman temple inscriptions, however, this snake or one wearing a double-feather crown  (I63) can take this reading value.¹²⁹ The association of the cobra with goddesses in general¹³⁰ may have made it a suitable writing for the word in question regardless of whether it was crowned or not. In the present corpus, the scribes alternate between the regular cobra (I12) and a variant with a more visible single coil (I64).¹³¹ The sign additionally has a local flavouring depicting the snake protruding its forked tongue rather than being a version of the venom-spitting cobra  (I43).

The fifth lot is written with the abbreviated nh-wd-snb-group, just as the second member of the collocation in hr-nh, ‘Capricorn’ (see Ch. 3.2 above). The reading of the sign should no doubt be taken at face value, i.e. as nh, and read accordingly, i.e. as ‘Life’. The reading is confirmed by the use of this sign in the name of the above-mentioned zodiac sign, which contains a homophone word, nh, ‘goat’, and by the fact that the sixth lot which opposes it by 180° is called mwt, ‘Death’.¹³²

The seventh lot is written with the piece-of-flesh sign (F51),¹³³ and its negative counterpart, the eighth, with the horn sign (F16)¹³⁴ and a fallen-enemy determinative. The horn sign can be read in several different ways, but with this determinative b seems to be a viable interpretation. It appears that a feminine .t is added after the determinative in Horoscope 5, which would indicate that we are dealing with a variant of (y)b(.t), ‘illness’ (vel sim.).¹³⁵ The seventh lot should thus be interpreted as a positive complement to this noun. The interpretation of the sign is complicated by the fact that it has a host of possible variant readings.¹³⁶ It is tempting to understand the word in question as designating the (sound) body. A regular reading as iw(.w) could fit, as would hr(.w). Given the time period, the latter seems to be the preferred reading, perhaps with the implication of ‘healthy limbs’ as opposed to (y)b(.t) designating physical illness. The two lots are understood as referring to the native’s bodily health.

The ninth point should in all probability be transliterated as shn.t. It must be related to the masculine noun shn, which can be translated as ‘event’, ‘occurrence’, ‘chance’, ‘constellation’, or similar.¹³⁷

¹²⁸ LGG VII, 53–69, s.v. šps.t.

¹²⁹ E.g., Ch. Leitz, Quellentexte zur ägyptischen Religion I: Die Tempelinschriften der griechisch-römischen Zeit, EQÄ 2, Münster 2004, 165 and 188. See LGG VIII, 57, s.v. šps.t wsr.t.

¹³⁰ Dumas, Valeurs phonétiques, 372–383. See also, e.g., É. Drioton, Recueil de cryptographie monumentale, in: ASAE 40, 1940, 333; id., La cryptographie du Papyrus Salt 825, in: ASAE 41, 1941, 116; H.W. Fairman, Notes on the Alphabetic Signs Employed in the Hieroglyphic Inscriptions of the Temple of Edfu, in: ASAE 43, 1943, 272; H. Junker, Über das Schriftsystem im Tempel der Hathor in Dendera, Berlin 1903, 7.

¹³¹ Verhoeven, Untersuchungen, 148–149.

¹³² Paleographically, however, the sign could also be read as a demotic group and fit hr.t, ‘first’ (Erichsen, Glossar, 288–289), but in view of the arguments listed above such a reading seems less viable.

¹³³ Verhoeven, Untersuchungen, 134–135.

¹³⁴ I owe this reading to Joachim F. Quack.

¹³⁵ See M. Smith, The Mortuary Texts of Papyrus BM 10507, DPBM 3, London 1987, 96.

¹³⁶ Kurth, Einführung, 1.228.

¹³⁷ Erichsen, Glossar, 455; Hughes, in: Fs. Parker, 58.

3.4 Calculating the Lots

The canonical astrologers commonly calculated the Lot of Fortune and the Lot of the *Daimon* by measuring the longitudinal arc between the Sun and the Moon and applying that distance from the Ascendant.¹³⁸

Table 6: Formulae for the Lots of *Daimon* and Fortune

Time of Birth	Lot of <i>Daimon</i>	Lot of Fortune
☉	$\lambda_{Asc.} - (\lambda_{\zeta} - \lambda_{\odot})$	$\lambda_{Asc.} + (\lambda_{\zeta} - \lambda_{\odot})$
☾	$\lambda_{Asc.} + (\lambda_{\zeta} - \lambda_{\odot})$	$\lambda_{Asc.} - (\lambda_{\zeta} - \lambda_{\odot})$

Reversed calculations were normally made for the two lots depending on the time of the birth, whether it was diurnal or nocturnal. The published horoscopic material from Egypt show that this system of establishing the two lots was also most commonly applied one.¹³⁹ It seems that the astrologers at Athribis also tried to follow similar principles. The positions are fully or partially preserved in four of the horoscopes. But there seems to have been some misunderstanding on how to calculate the lots. Alternatively, to the detriment of the native, the astrologers were careless when executing their calculations.

Table 7: The Lots of *Daimon* and Fortune in Horoscopes 1 and 3

	Sun	Moon	Arc	Asc	<i>Daimon</i>	Fortune
Hor. 1 ☉	♎ 14°	♏ 22°	38°	♈ 22°	♈ 30°	♈ 14°
Hor. 3 ☾	♏ 7.5° ¹⁴⁰	♏ 2°	54.5°	♏ 9°	♏ 3°	♎ 14°

In Horoscopes 1 and 3, Lots 1 and 3 are symmetrically or almost symmetrically located from the Ascendant at a distance corresponding to the longitudinal arc between the Sun and the Moon, assuming that Lot 1 has the same position in its zodiac sign as Lot 2, i.e. 30° in the case of Horoscope 1.¹⁴¹

There is a discrepancy of one degree between Lots 1 and 3 in Horoscope 3. The two lots are given as Aquarius 3° and Libra 14°. Lot 1 is thus 54° away from the Ascendant (9° Sagittarius), while Lot 3 is 55° from this point.

Horoscope 1 records a diurnal birth and Horoscope 3 concerns a nocturnal one, if the reconstruction of the time of the nativity is correct. Both, however, use the same method for establishing the positions of Lots 1 and 3. Horoscope 1 with the Ascendant in 22° of Aquarius has the Sun in 14° of Libra and the Moon in 22° of Scorpio. Following the principles

¹³⁸ E.g., Bouché-Leclercq, *Astrologie grecque*, 288–297; Gieseler Greenbaum, *Daimon*, 53–56 and 286–309; Heilen, “Hadriani genitura”, 1158–1182; Neugebauer/van Hoesen, *Greek Horoscopes*, 8–9.

¹³⁹ Heilen, “Hadriani genitura”, 1168–1169; Neugebauer/van Hoesen, *Greek Horoscopes*, 9.

¹⁴⁰ The longitude is partially reconstructed. It is unlikely that the lots could be plotted down to half a degree. If the astrologers rounded the number up or down, it could explain the discrepancy of the distance between the Ascendant and the two lots in Horoscope 3.

¹⁴¹ See the n. *ad loc.*

given above, the Lot of Fortune would be in 30° of Pisces and the Lot of the *Daimon* in 14° of Capricorn. But we find the conditions reversed.

It thus appears that the astrologer who composed Horoscope 1 conflated the formulae, erroneously calculating the positions of the two lots as if he were dealing with a nocturnal nativity. It may not have been a mistake *per se*, however. This way of establishing the two lots seems to have been practiced by some astrologers around the turn of the Common Era and throughout the Roman period. *P.Lond.* I 130 mentions it as a method of ‘ignorant people’ for finding the Lot of Fortune.¹⁴² Since it was mentioned in the Greek text, it is fair to assume that this was a relatively widely spread practice among Egyptian astrologers. Even if the papyrus only mentions the Lot of Fortune, one can imagine that the calculation of the Lot of the *Daimon* with the reverse of the formula above would also have been current among the same practitioners. There may have been disagreement, therefore, among astrologers at Athribis on how to establish the two lots; some belonged to the school of the ‘ill-informed’.

The two lots under discussion appear problematic in Horoscope 4. Considering that the Ascendant was in Leo 6° one would expect a longitudinal of 63° degrees to fit the Lot of Fortune, while the astrologer at first appears to have placed the Lot of *Daimon* in 19° Libra,¹⁴³ which requires 73° . It can perhaps be assumed, however, that the latter is a scribal error.

Table 8: *The Lots of Daimon and Fortune in Horoscope 4*

	Sun	Moon	Arc	Asc	<i>Daimon</i>	Fortune
Hor. 4 ☉	---	---	[63°]	$\varrho 6^\circ$	$\underline{\alpha} \{1\}9^\circ$	$\text{II} 3^\circ$

The four whole sign lots appear to be calculated from the positions of the two luminaries. Lot 5 is found in the zodiac sign following that of the Moon. Lot 7 in all preserved cases is found in the zodiac sign preceding that of the Sun. Lots 6 and 8 were placed 180° opposite Lots 5 and 7.¹⁴⁴ Horoscope 4, however, does not follow this pattern. The placement of Lot 5 in Virgo suggests that the Moon was in Leo, which does not fit the position of the Moon, in either Libra or Scorpio, reconstructed from the astronomical data. It is thus possible that the lot was plotted after the lunar position instead of before. The position of the first two pairs of lots, however, suggest that the Moon was in Capricorn, with the Sun in Pisces. Thus, either the longitudinal arc between the two luminaries is miscalculated, the astrologer was careless in plotting the lots, or an additional rule applied, which altered the calculation.

Both Horoscopes 2 and 5 contain parts of the positions of the four centres and the lots. In the latter text, only Lots 7 and 8 are preserved according to the rule described above. Since the positions of the two luminaries are extant, Lots 5 and 6 can easily be restored. It is probable that the same can be done in Horoscope 2. Due to the fragmentary state of

¹⁴² See, e.g., Neugebauer/van Hoesen, *Greek Horoscopes*, 8 and 24.

¹⁴³ See the n. to l. 8 in Horoscope 4.

¹⁴⁴ Winkler, in: *JHA* 53, 2022, 333–334.

preservation, it is unclear whether the two texts provided the two first pairs of lots as whole signs as in Horoscope A and C¹⁴⁵ or with precise longitudes as in Horoscopes 1, 3, and 5.

When the Lot of *Daimon* and the Lot of Fortune were expressed as whole signs, it is possible that the positions of the Ascendant and the two luminaries were calculated with respect to a whole sign rather than as exact longitudes. The latter method fits the data in Horoscope A, but the position of the lots in Horoscopes 2 and C can only be explained by the introduction of minor errors in such a routine. If the astrologer interpreted the position of the luminaries and the Ascendant in terms of whole signs, however, the lots in the horoscopes make sense. Only a conflation between the formulae for diurnal and nocturnal births can be detected in Horoscope 2:

Table 9: The Whole Sign version of the Lots of *Daimon* and Fortune

	Sun	Moon	Arc	Asc	<i>Daimon</i>	Fortune
Hor. 2 ☉	♈	♈	one sign	[♈]	[♏]	[♌]
Hor. A ☉	♏	♏	one sign	♏	♏	♏
Hor. C ☉	♈	♌	one sign	♏	♏	♏

Unfortunately, the final point, *shn.t*, is only well preserved in Horoscope 1 and 4. Only the former horoscope is complete. No particular rule for its calculation can be detected with certainty, but it appears that the position largely corresponds to the position of the Moon at the time of conception assuming it was 273 days before birth in Horoscope 1. No such connection can be seen in the other text, however. The suggestion is thus provisional.

3.5 Lots and Loci

The names of the two lots in Egyptian parallel their destinations in Greek. $\xi\omega$ equals κληροσ δαίμωνος while $\xi\psi\gamma(t)$ corresponds to κληροσ τύχη.¹⁴⁶ It is notable that the Egyptian names in the system of the twelve places translate ἀγαθὸς δαίμων and ἀγαθὴ τύχη. Lots 2 and 4, being negative counterparts opposed by 180°, would therefore probably be labelled as negative counterparts of these, that is κακὸς δαίμων and κακὴ τύχη. But such designations of lots are not known from the canonical sources and are instead the labels given to places in the *Dodecatropos*.¹⁴⁷ Since both systems rely on the Ascendant, it can be suggested that the two system were developed from the same set of thoughts. Both are furthermore ascribed to Nechepsos and Petosiris in the Hellenistic astrological tradition.¹⁴⁸ In reality, this probably only means that the systems was used by Egyptian temple astrologers.

¹⁴⁵ Winkler, in: JHA 53, 2022, 333. The reconstruction of Horoscope B (Text 2) there assumed exact longitudes. If the text instead made use of the whole sign method like the two other horoscopes written on the same ostracon, the Lot of *Daimon* would fall in Aquarius instead of Pisces.

¹⁴⁶ See Heilen, “Hadriani genitura”, 1158–1182.

¹⁴⁷ See, e.g., Bouché-Leclercq, *Astrologie grecque*, 256–288; Heilen, “Hadriani genitura”, 689–702; Neugebauer and van Hosen, *Greek Horoscopes*, 7–8; von Lieven, in: AoF 26, 1999, 100–101 and 123–124; Winkler, in: Fs. Vleeming, 305–308.

¹⁴⁸ Heilen, “Hadriani genitura”, 39–52. See for the identity of the two, see Ryholt, *New Light on the Legendary King Nechepsos of Egypt*, in: JEA 97, 2011, 61–72.

Table 10: Lots and Loci

No	Lot	Locus	No
1	šzw	šzy	11
2	sšr	sšr	12
3	špšy.t	špšy.t	5
4	wrꜣ(.t)	wry.t	6
5	ꜥnh	shn-ꜥnh	2
6	mwt	(shn)-mwt	8
7	hꜥ(.w)	sn	3
8	(y)ꜥb(.t)	ntr	9

Table 10 shows that the eight lots are arranged in four pairs, in which each entity contrasts with, and is thus set 180° opposite from, its counterpart. The first two pairs, however, are placed adjacent to one another in the system of the *Dodecatropos*. As a result, *loci* with the same connotations, either positive (nos. 5 and 11) or negative (nos. 6 and 12), are placed 180° apart, and thus opposite each other. In both systems, those referring to life, or the means thereof (*shn-ꜥnh*), and death are 180° opposite. The same is valid for the remaining points.

It is difficult to say which of the systems, the *Dodecatropos* or the lots, was developed first, if such a distinction can be made. That the horoscopes containing explicit references to the lots are older than the ones that contain explicit mention of the twelve *loci* or a few thereof (e.g., *O.Neugeb.* 1–4; *O.Leid.Dem.* 333; *O.Glasg.Dem.* 1925.96) is not by itself a strong indication for two chronological layers. The difference in age is merely a few decades at the best, but they also to some extent overlap in time. Furthermore, despite their terminological similarity, the two systems are not mutually exclusive in astrological practices.¹⁴⁹ Even if the system in the Athribis horoscopes differs from the ones encountered among astrologers composing Greek and Latin treatises, it can be conjectured that the system displayed by Horoscopes 1–7 could have made use of both features. The reason why the *loci* are not explicitly mentioned may be that they were easy to plot once the Ascendant was known.¹⁵⁰ The fact that the astrologers did not provide the longitude for some of the lots can further indicate that not every point had to be written down. Yet the impression is that most relevant points were plotted, even if they would have been easy to calculate.¹⁵¹

¹⁴⁹ For instance, Vettius Valens discusses the Lot of Fortune and the Lot of the *Daimon* as well as the *Dodecatropos*, just as many of his contemporaries and successors.

¹⁵⁰ E.g., Winkler, in: Fs. Vleeming, 305–308.

¹⁵¹ The astrological text of P.Carlsberg 81, 89, and PSI inv. D 39—three manuscripts of the same text—refers to the lots. A fragment mentions the method for establishing the Evil *Daimon* of the house of birth: --- pꜣ] [gy] n gm pꜣ sšl n pꜣ ꜥwy n ms [---. Though the piece is poorly preserved, if correctly reconstructed it includes a passage that involves calculating a distance between the Sun and the Moon: [iꜥkꜣ] ip n-ty-(n) pꜣ-rꜣ [šꜣ] [iꜥh (?)]. A fragment of P.Carlsberg 104 also refers to the *Daimon* in the house of birth (šy n pꜣ ꜥwy n ms).

is invoked by several epithets, among which one can find *tš špšy.t* and *pš šy*.¹⁶⁴ The instance is one among several where she is said to be the mistress of fortune and fate, or is herself a personification of these concepts.¹⁶⁵

Another text from the same collection is more pertinent to the astrological context. *O.Hor* 3 contains praises of Ptolemy VI Philometor on the occasion of the monarch's birthday. The encomium states that the year is going to be favourable for the king just as every year to come (*nš-nfr nšk* |⁽³⁾ *tš rmp.t tšy-k rmp.t nfr.t rmp.t nb.t nty iw-w (r) iy*). The text then pronounces the following: |⁽⁴⁾ *(nš-nfr-s (n) pšy-k šy nš-nfr-s (n) pšy-k špšy.t*, 'It (the year) will be beneficent for your fate and it will be beneficent for your fortune'. It is further specified that the goddess has opened the year for the king (*wp-s.t is.t*) and bestowed on him benefits (*md.t nfr.t*) and good events (*šhn nfr*). The statement that Isis opened the year alludes to the goddess's connection with the rising Sothis,¹⁶⁶ an event that ideally opened the year and commenced the inundation. It was thus intimately connected to time, which constitutes an integral part of the Egyptian idea of fate.¹⁶⁷ The goddess commanded the start of a new year and also provided continual good fate and fortune.

D. Gieseler Greenbaum suggests that the connection between the celebration of the pharaoh's birthday and Isis may have a hemerological connection.¹⁶⁸ Yet, since these entities were already related earlier to the birth of individuals and associated with the goddess in question, such a linking needs to be further specified. The astral connotation of *šy* and *špšy.t* arose from their connection to Isis, and thus to Sothis. From there, and because these two were already associated with the day of birth of an individual, the development to being incorporated in proper astrological teachings is not farfetched.¹⁶⁹

What originally were two genii, an aspect which clearly was not lost with the introduction of astrology as is indicated by, for instance, the graffiti from Philae, became part of astrological doctrine. Through their association with the day of birth and astronomical events relating to the birth of the year, they developed into points in the ecliptic that governed the same or similar domains as their terrestrial counterparts. The difference being that in the astrological teachings it is not the gods *per se* that determine, for instance, the length of life of an individual, but the configuration of the constellations.

The negative counterparts *sšr* and *wry.t* also appear as a complementary pair of maleficent forces. The most striking examples are found in the demotic 'self-dedications' dating to the Ptolemaic period.¹⁷⁰ These documents to some extent express the same purposes as the earlier Oracular Amuletic Decrees by protecting the possessor from various dangers

¹⁶⁴ See, however, Quack, in: *Mythos* 55, 2016, 55.

¹⁶⁵ Kockelmann, *Praising the Goddess*, 66–67.

¹⁶⁶ E.g., J. Bergman, *Isis auf der Sau*, in: S. Brunnsåker/H.-Å. Nordström (eds), *From the Gustavianum Collections in Uppsala*, *Boreas* 6, Uppsala 1974, 99–104; Kockelmann, *Praising the Goddess*, 59–61; Nagel, *Isis*, 543–546.

¹⁶⁷ J. Bergman, *I Overcome Fate, Fate Harkens to Me*, in: H. Ringgren (ed.), *Fatalistic Beliefs in Religion, Folklore and Literature*, *Scripta Instituti Donneriani Aboensis* 2, Uppsala 1964, 37–39.

¹⁶⁸ Gieseler Greenbaum, *Daimon*, 53.

¹⁶⁹ Both *špšy.t* and *šy* appear in *P.Zauzich* 50, a treatise pertaining to astral religion, but in a fragmentary passage that leaves their role in the text uncertain.

¹⁷⁰ E.g., K. Ryholt, *A Self-Dedication Addressed to Anubis: Divine Protection against Malevolent Forces or Forced Labour*, in: K. Ryholt/R. Nyord (eds), *The Lotus and the Laurel: Studies on Egyptian Language and Religion in Honour of Paul John Frandsen*, CNIP 39, Copenhagen 2015, 337.

through an enumeration of hazards with negative effects on humanity.¹⁷¹ Among the plethora of threats listed, both *sšr* and *wry.t* can be found next to each other as harmful entities.

The conjunction of *špšy.t* and *wry.t* is also found as a contradictory pair. Examples include a plea to the god Thoth in P.Brit.Mus. EA 73785 from the Persian period.¹⁷² The god is asked to remove the negative entity and bestow the beneficent one on the writer. Furthermore, P.Insinger viii 19 states that fortune and misfortune are found in women (*ỉ.ỉr špšy.t wr.t ỉr pꜣ tꜣ ỉn nꜣ s-ỉm.wt*). The version of the wisdom text found in P.Carlsberg 2 iv 13 includes the following phrase: *ỉ.ỉr špšy(.t) wry(.t) ỉr pꜣ sỉn [pꜣ ntr]*, ‘Fortune and misfortune depend on the command [of the god]’.¹⁷³

Though there are no clear attestations of a contradictory pair consisting of *šꜣy* and *sšr* outside the astrological corpus, the connection probably developed from the above-mentioned associations between *šꜣy* and *špšy.t*, *špšy.t* and *wry.t*, and *sšr* and *wry.t*. *Špšy.t* had a masculine positive counterpart and negative feminine one, which in turn had a complementary masculine equivalent. In order to obtain symmetry, this pattern produced *sšr* as the negative counterpart of *šꜣy* in the development of the astrological doctrines.

3.7 The Terms

The horoscopes employ the concept of terms.¹⁷⁴ The Egyptian designation for the terms is *dny.t*, lit. ‘part’, while the Greek equivalent is ὄρια, ‘boundary’.¹⁷⁵ The term *dny.t* appears in the present corpus when a planet was found in its own terms (*tꜣyꜣf dny.t ỉꜣꜣf*). When it was in the term of another planet, the name of that celestial body is mentioned (e.g., (*ỉr-pꜣ*)-*štꜣ ỉỉ.t 3* (*ỉr-pꜣ*)-*kꜣ*).

In antiquity several systems of terms or boundaries were discussed by the astrologers. For instance, Ptolemy (*Tetr.* 1.20–21) presents three systems, one of which was said to be Egyptian. Of the remaining two, one was traced back to the Chaldeans while the other was mentioned to be of an ancient date. In principle, the systems described by the Alexandrian polymath are based on assigning a sequence in every zodiac sign to each one of the five planets. Thus, each sign is divided into five sectors. When a planet was in the section apportioned to it, i.e. in the ecliptic longitude which corresponds to its ascribed portion of a sign, its influence over the native was enhanced;¹⁷⁶ these are dignities.¹⁷⁷ As such they were

¹⁷¹ Ryholt, in: Fs. Frandsen, 340–342.

¹⁷² G.R. Hughes, A Plea to Thoth in the Library of G. Michaelides, in: JEA 54, 1968, 179 and 181. See also A. Grams, Der Gefahrenkatalog in den Oracular Amuletic Decrees, in: SAK 46, 2017, 85–86.

¹⁷³ Volten, Demotische Weisheitsbuch, 78–79. See, however, J. Dieleman, Fear of Women? Representations of Women in Demotic Wisdom Texts, in: SAK 25, 1998, 28, n. 59.

¹⁷⁴ See, e.g., Neugebauer/van Hoesen, Greek Horoscopes, 12; C. Tolsa, The Table of Ptolemy’s Terms (*Tetr.* 1.21), in: Philologus 162, 2018, 248–251.

¹⁷⁵ It should be noted that the English word comes from the Latin one used to translate the Greek designation (S. Heilen, Ptolemy’s Doctrine of the Terms and Its Reception, in: A. Jones [ed.], Ptolemy in Perspective: Use and Criticism of His Work from Antiquity to the Nineteenth Century, Archimedes 23, Dordrecht/Heidelberg/London/New York 2010, 46).

¹⁷⁶ E.g., Bouché-Leclercq, Astrologie grecque, 206–215. More detailed treatments are provided by, e.g., A. Jones/J.M. Steele, A New Discovery of a Component of Greek Astrology in Babylonian Tablets: The “Terms”, in: ISAW Papers 1, 2011. See also J.M. Steele, A Late Babylonian Compendium of Calendrical and Stellar Astrology, in: JCS 67, 2015, 187–215; Heilen, “Hadriani genitura”, 318–371; id., in: Jones (ed.), Ptolemy in Perspective, 45–93. For earlier discussion, specific to previously published Egyptian material, see Bohleke, in: SAK 23, 1996, 11–46, esp. 34–46; Depuydt, in: Enchoria 21, 1994, 1–9.

not only important for determining the influence of the planets on the native, but were also key in the calculation of the lifetime. The total number of degrees that each planet possessed in every zodiac sign was taken as representing the maximum lifetime in years that each planet could apportion to a native, if auspiciously disposed.¹⁷⁸ From the above-mentioned Greek treatise, the following number of years that a planet was believed to bestow upon a native can be extracted: Saturn: 57 years; Jupiter: 79 years; Mars: 66 years; Venus: 82 years; and Mercury 76 years.¹⁷⁹

Ptolemy is not the only author to speak of an Egyptian system: Paulus of Alexandria (*Eisag.* 3), for instance, also refers to Egyptian sages (σοφοὶ Αἰγυπτίων) as being behind the system. The sages most probably refer to the astrologer king Nechepsos and his associate Petosiris. Vettius Valens mentions that the latter wrote a book on the subject (*Anth.* 2.3). Nevertheless, the system seems to have a Mesopotamian origin.¹⁸⁰

One of the adversaries of astrology in antiquity, Sextus Empiricus, points out that the astrologers could not agree on the divisions of the terms (*Adv.math.* 5.37).¹⁸¹ His statement seems by and large to be confirmed by the fact that several astrologers, for example, Vettius Valens and Critodemus, also discuss variant methods of arranging the terms in addition to the traditional Egyptian system. Some of these may have been of their own devising: the Sun and the Moon can also be part of the apportioned sequences, while in the latter's arrangement the Sun was allotted degrees in each zodiac sign but not the Moon. Additionally, Greek papyri, such as *P.Mich.* III 149, contain a slightly different system, also including the Sun and the Moon, which was based on planetary epicycles.¹⁸² The most common system encountered in the horoscopic material, however, was the so-called Egyptian system.¹⁸³ And variants of it are also found in the demotic papyri, as exemplified by, for instance, P.CtYBR inv. 1132.¹⁸⁴

Due to the nature of the horoscopes—only providing the terms in which a planet was found—one can obtain at best a partial account of the boundaries of the terms used at Athribis. It is clear that they agreed for the most part with the figures provided by Ptolemy. Nevertheless, there are a few deviations. For instance, in Horoscope 3 (ll. 6–7) the sequence 11°–12° in Capricorn is ascribed to Venus, and the same can be seen in Horoscope B, while in Ptolemy's description of the Egyptian system it belongs to Jupiter. In the same system 12° of Scorpio is ascribed to Mercury, while the Athribis texts state that it was in the terms of Venus (Horoscope 5). The canonical system ascribes the first degrees of Cancer to Mars, as can also be seen in Horoscope 6, but Horoscope B seems to attribute them to Saturn.

¹⁷⁷ See, e.g., Gieseler Greenbaum, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 462–464, for a description of these in Hellenistic astrology.

¹⁷⁸ E.g., Bouché-Leclercq, *Astrologie grecque*, 408; Tolsa, in: *Philologus* 162, 2018, 249. There are similar phenomena in Babylonian astrology (BM 32488). Planets in certain positions also were believed to influence the length of the lifetime, although with different periods. I thank Marvin Schreiber for informing me about the content of the mentioned tablet.

¹⁷⁹ See also Heilen, "Hadriani genitura", 648–650.

¹⁸⁰ Steele, in: *JCS* 67, 2015, 187–215, esp. 211–212.

¹⁸¹ Heilen, in: Jones (ed.), *Ptolemy in Perspective*, 58.

¹⁸² Heilen, in: Jones (ed.), *Ptolemy in Perspective*, 47–48.

¹⁸³ E.g., Bohleke, in: *SAK* 23, 1996, 36; Neugebauer/van Hoesen, *Greek Horoscopes*, 12.

¹⁸⁴ While the editors of the papyrus regard the system as basically Egyptian, Heilen, in: Jones (ed.), *Ptolemy in Perspective*, 48, takes it as an independent system.

Some of the deviations from the canonical system may thus be contingent on a slightly different division of terms, while others could result from mistakes.

3.8 Lunar Years

As stated above, the astrologers indicated in what year (*hsb.t*) of the 25-year lunar cycle the birth took place. Such notations are preserved in Horoscopes 1, 2, 5, and 6 (Table 11). The lunar cycle year was added to allow the impact of the Moon to be assessed more precisely, for easier estimates of when, for instance, prenatal syzygies occurred (see Ch. 3.9 below).

Table 11: Lunar Cycle Dates

Text/Lunar Year	Year Begins	Lunar Month	Julian Date	Nativity Date
Hor. 1: 10	5 Thoth 24	Thoth 24	48 BC Sept. 27	5 Thoth 27
Hor. 2: 13	8 Thoth 21	Pharmuti 18	44 BC April 18	8 Pharmuthi 22
Hor. 5: 19	17 Thoth 16	Hathyr 15	14 BC Nov. 12	17 Hathyr 19/20 (22/23)
Hor. 6: 8 (sic)	31 Thoth 15	Thoth 15	AD 1 Sept. 6	31 Thoth 2 (8)

The dates are given as year, month, day. The shaded area indicates regnal years under Augustus calculated according to the Alexandrian calendar. The numbers in brackets indicate the corresponding day according to the Egyptian civil calendar.

While the dates of the nativities and the lunar years correspond perfectly well with the lunar cycle as found in P.Carlsberg 9, Horoscope 6 poses a problem in this respect. When the birth took place, it was still the seventh year of the lunar cycle, but it seems that the scribe wrote down the numeral eight instead. It is assumed that this is a scribal error. Year 8 of the lunar cycle would only begin on Thoth 15 according to the Egyptian civil calendar.

In all texts except Horoscope 6 the year number is followed by either $\overline{\text{A}}$ ¹⁸⁵ *mḥ-1.t*, ‘first’, or $\overline{\text{B}}$ *mḥ-2.t*, ‘second’. From the earlier published Athribis horoscopes, it becomes clear that these two refer to the waxing and waning of the Moon at the time of birth respectively.¹⁸⁶ Lunar phases had had an impact on the nativity according to common Hellenistic astrological doctrine. The reason the remark is left out in Horoscope 6 must depend on the erroneous estimate of the lunar year.

3.9 Prenatal Syzygies

In four horoscopes (Table 12), one or two extra positions of the Moon are recorded. These are usually found on the same line as the lunar position on the day of birth and are also related to the note on the lunar year. Similar to the statements of the positions of the other planets, these positions are given in degrees of longitude and are related to the terms of a planet, which suggests that these points were of some astrological relevance.

¹⁸⁵ The facsimile is taken from Horoscope 5.

¹⁸⁶ Escolano-Poveda, in: JHA 53, 2022, 67.

Table 12: Positions of the Moon

Text	Primary Position	Additional Position 1	Additional Position 2
Hor. 1	Scorpio 22°	Cancer 12°	Pisces 12°
Hor. 2	Gemini 20.5°	Libra 6°	---
Hor. 5	Pisces 1°	Scorpio 12°	---
Hor. 6	Gemini 5°	Cancer 30°	Pisces 30°

As seen from Table 12, in Horoscope 2 the extra position is in 6° of Libra, the terms of Saturn. Horoscope 5 places the extra position of the Moon in Scorpio 12°, in the terms of Venus. Horoscopes 1 and 6 provide two extra positions. These are Cancer and Pisces in both instances. The additional positions recorded in Horoscope 1 are 12° of Cancer and Pisces, both in the terms of Venus. In Horoscope 6, the extra position of the Moon is calculated to be in 30° of Cancer and Pisces, both in the terms of Saturn. Whenever two positions are added, the surviving material suggests that the result is a longitudinal arc of 240°, which suggests that they form the basis of a triplicity,¹⁸⁷ with a third hypothetical point falling in the same terms as the two mentioned ones. The same could have been the case in Horoscope 5, though only one position is recorded. In Horoscope 2 this would not have been the case.¹⁸⁸

In Horoscope 1, the extra position in 12° of Pisces corresponds to the Full Moon preceding the date of birth. It occurred in 19° of the same sign following Babylonian coordinates.¹⁸⁹ The added position of the Moon in 6° of Libra in Horoscope 2 also points to a previous Full Moon, only diverging a few degrees from similar modes of estimation. The New Moon preceding the lunar opposition fell one day early in that year according to the scheme found in P.Carlsberg 9. One can thus assume that the latter syzygy was also estimated one day ahead of the actual phenomenon. The same can be seen in Horoscope 5 with 12° of Scorpio. The previous conjunction took place in 20° of Scorpio in the Babylonian system.

Finally, Horoscope 6 gives the positions 30° of Cancer and Pisces, which does not fall near any syzygy in AD 1.¹⁹⁰ But considering that the astrologer misjudged the lunar year, calculating it as if it were year 8 instead of year 7, the longitude in Cancer fits with the position of the syzygy that took place on Mesore 10 in regnal year 31 on the Egyptian civil calendar (July 28, AD 2) following the lunar scheme presented in P.Carlsberg 9. The conjunction took place in the first degrees of Leo according to Babylonian calculations. It is possible, however, that the syzygy was envisioned to have taken place in Pisces. To make

¹⁸⁷ See Heilen, “Hadriani genitura”, 717–718; Neugebauer/van Hoesen, *Greek Horoscopes*, 12–13.

¹⁸⁸ See Gieseler Greenbaum/Jones, in: *ISAW Papers* 12, 2017; Heilen, “Hadriani genitura”, 1093–1096.

¹⁸⁹ The calculations are made with a Babylonian correction of the longitude (see J.P. Britton, *Studies in Babylonian Lunar Theory: Part III*, *Archive for History of Exact Sciences* 64, 2010, 619; Jones, *Astronomical Papyri*, 1.49) with the help of the program Stallam developed by Mathieu Ossendrijver, which is based on JPL ephemeris data.

¹⁹⁰ The longitude in all cases is closer to the position of the Moon at the beginning of the Egyptian day than to the syzygy itself. Whether the astrologers attempted to pinpoint the beginning of the day of the syzygy, however, rather than the phenomenon itself is unclear due to the small size of this sample, but they were clearly able to do both, as shown by the existence of texts such as O.Berl. 30539.

calculations for year 8 of the lunar cycle, the astrologer would have consulted his table and seen that the previous New Moon occurred on Mesore 10 instead of 21, which is correct for lunar cycle year 7. Plotting the lunar position for that day in regnal year 30 of Augustus, he charted the longitude of the Moon fairly accurately but missed the fact that it was not in a syzygy.

The additional points in Horoscopes A–C fit a similar pattern of luni-solar opposition. Horoscope C provides 12° degrees of Taurus as the additional position, which is nowhere near a syzygy. Assuming that another point in the triplicity was indicated (not shared terms), it is possible that the syzygy recorded is the lunar opposition in 12° of Capricorn, that is, not the Full Moon closest to the nativity, but the one before that. The position can be explained as a blunder: by mistake the astrologer omitted a month while checking his tables.

Enough material survives to suggest that the astrologers considered the prenatal syzygies in establishing the future of the native, and occasionally triplicities are explicitly mentioned. Such a practice is also known from Greek texts, but usually of a later date.¹⁹¹ The reason for calculating these positions is best explained through their perceived importance for the calculation of the native's lifetime.¹⁹² In Greek astrological material, it seems to have been the most common practice to establish the syzygy closest to birth,¹⁹³ but this did not always apply to the present corpus of texts, as can be seen from Table 13:

Table 13: The Prenatal Syzygies

Text	Closest Syzygy	Second Syzygy
Hor. 1	Sept. 26, 48 BC ϕ	<u>Sept. 11, 48 BCρ</u>
Hor. 2	Apr. 18, 44 BC ϕ	<u>Apr. 3, 44 BCρ</u>
Hor. 5	<u>Nov. 10, 14 BCϕ</u>	Oct. 25, 14 BC ρ

ϕ = conjunction (New Moon) – ρ = opposition (Full Moon). Underlined date indicates the date which best fits the position found in the ostrakon.

There are some elusive elements in this analysis related to the fact that the syzygy closest in time to the birth was not always considered. Horoscopes 5, A, and C provide the position of the closest syzygy or what was mistakenly taken as the nearest one, while Horoscopes 1–2, 6, and B provide the position of the second-closest syzygy or the one that was understood as such. It is not entirely clear why some nativities provide the position of the previous Full Moon (Horoscopes 1–2 and A–C), while others give positions that can be taken to relate to the previous New Moon (Horoscopes 5–6). Perhaps the New Moon was an error for the closest Full Moon.

¹⁹¹ E.g., *P.Oxy.Astron.* 4282 (AD 4229); P.Berl. 9825 (Gieseler Greenbaum/Jones, in: ISAW Papers 12, 2017).

¹⁹² Gieseler Greenbaum, *Daimon*, 330–335; Neugebauer/van Hoesen, *Greek Horoscopes*, 174.

¹⁹³ E.g., Neugebauer/van Hoesen, *Greek Horoscopes*, 174.

4. *The Sitz im Leben of the Horoscopes*

Not much can be said about the find spots of the present pieces, although it is probable that they were found together, perhaps in the same area where the recent finds of ostraca were made at Athribis.¹⁹⁴ This hypothesis for the circumstances of the find is supported by the fact that the ostraca reached the museum as a group; they would, therefore, have been discarded in a group as well. As such it is possible that they were kept together in antiquity. By comparison with the finds of horoscopes from Narmouthis, which were discovered in two large storage jars in the *temenos*,¹⁹⁵ a comparable situation can be envisioned for the present horoscopes before they were discarded. Neugebauer thought of a similar scenario for the horoscopes found at Memnoneia (*O. Neugeb.* 1–5).¹⁹⁶ The latter proposal has been questioned, and it has been suggested that the ostraca represent the expected sample of such texts from a site of that size.¹⁹⁷ While the uniformity of the texts favours the interpretation of Neugebauer, the details regarding the circumstances of the find remain uncertain.

It is not possible to tell whether Horoscopes 1–7 were kept together with solely astronomical and astrological texts or with a wider array of documents. If they were in fact kept together, one can imagine that the horoscopes could have been stored at the temple for archival purposes. There are various reasons for the astrologers to have retained such pieces, including educational purposes and record-keeping. It is possible to imagine that astrologer apprentices practiced on actual nativities, perhaps of significant locals. Another alternative, but not necessarily contradictory reason could be to keep such texts for returning customers, particularly as these horoscopes must have been more difficult to execute than simpler products.

That more than one horoscope can be found on one ostrakon favours an archival context, but one cannot exclude that one piece containing two nativities was produced for other purposes, for instance, to determine the outcome of a marriage.¹⁹⁸ The same cannot apply to Horoscopes A–C, however. The three texts are found on the same ostrakon and are written for three individual women. The time difference between the oldest and youngest nativity is almost 20 years.¹⁹⁹ The disposition of multiple horoscopes on the same papyrus is also found in a few Greek examples,²⁰⁰ and it is advisable to explain the present group in the light of this comparative material despite several circumstances that differ between the finds.

¹⁹⁴ Boud'hors *et al.*, in: BIFAO 121, 2021, 72–80; Lippert/Schentuleit, in: Caputo/Luogovaya (eds), *Using Ostraca*, 199.

¹⁹⁵ Gallo, *Ostraca demotici e ieratici*, xxxiii–xxxiv.

¹⁹⁶ Neugebauer, in: JAOS 63, 1943, 120.

¹⁹⁷ Quack, in: *Enchoria* 31, 2008/2009, 111.

¹⁹⁸ See W. Hübner, *The Professional Ἀστρολόγος*, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 309, n. 68, and 316.

¹⁹⁹ Escolano-Poveda, in: JHA 53, 2022, 50 and 65, notes that Horoscope 2 and Horoscopes A–C may have been written by the same scribe. Thus, the same person would have examined nativities that were nearly 40 years apart. It is difficult to say, however, when the two ostraca were inscribed in relation to one another.

²⁰⁰ Hübner, in: Bowen/Rochberg (eds), *Hellenistic Astronomy*, 316, n. 104.

The ostraca underline the interest of the priests at Athribis in the astral sciences already displayed by the monumental zodiacs connected to the site.²⁰¹ Sophisticated horoscopes have been unearthed in other localities too, even if these are usually of a slightly later date, e.g., *P.Lond.* I 130 from Hermopolis,²⁰² or the Theban horoscopes of Anubion,²⁰³ in addition to those found at, for instance, Oxyrhynchus. There are also texts of comparable refinement, which are more or less contemporary with the ones presented here.²⁰⁴ The material in the Egyptian language, beyond the so-called Old Coptic Horoscope, displays a similar intricacy. While, for instance, P.Berl. 8345,²⁰⁵ from Soknopaiou Nesos, only caters to the needs of someone wanting to produce the simplest horoscopes, most astrological manuals, such as those found at Tebtunis, were devised to cast a variety of horoscopes. In fact, most preserved astrological manuals display an astrological system that goes beyond the possibilities offered by the most common type of horoscope,²⁰⁶ i.e. the correct appreciation of longitudes was necessary to take advantage of the manual's full potential. Hence, astrologers at other localities would also have been able to produce and interpret horoscopes of similar refinement to the present examples. It can thus be assumed that they were by no means unique in their complexity at their time of production. Nevertheless, one can only speculate as to whether the other horoscopes would have been configured in the same way.

5. The Editions

Horoscope 1

Measurements: 11.5 cm × 8.5 cm

Plate 1

Description: The light red piece of pottery is completely preserved. The text has suffered from abrasions, particularly in the middle section of the ostrakon. The surface is also covered with salt stains, which obscure the text in a few instances.

Date: September 30, 48 BC

Time of Birth: ≈ 3 pm – 4 pm

Transliteration

1. *ḥsb.t 5.t n 22(.t) tpy ʒḥ.t ʿ2ʿ7 (wnw.t) 9.t n hrw ḥr-sʒ-is.t pa twtw pa ḥr*
2. *p(ʒ)-rʿ ʒḥ.t ʿ4ʿ sbkʒ wʒḥ | mʿ tʿyʿ-rʿ (?) ... ḥw.t | ḥsb.t 10.t | mḥ-1.t*
3. *iḥ dʒ.t 22 (ḥr-pʒ)-štʒ wʒḥ | gnhd 12 (pʒ)-ntr-(dwʒ) tbt(.w) 12 (pʒ)-ntr-(dwʒ)*
4. *(ḥr-pʒ)-kʒ dʒ.t 8 (pʒ)-ntr-(dwʒ) †*
5. *(ḥr-pʒ)-štʒ ʒḥ.t 3 (ḥr-pʒ)-kʒ wʒḥ*
6. *(ḥr)-tšy iʒw 8 (pʒ)-ntr-(dwʒ) ʿwʒḥʿ*
7. *(pʒ)-ntr-(dwʒ) rpy.t 12 tʒyʒf dny.t ḥʿʒf wʒḥ*
8. *sbkʒ ʒḥ.t 14 ʿtʒyʒf dny.t ḥʿʒf wʒḥ (?)ʿ*
9. *(rʿ)-ḥʿ mw 22 (rʿ)-ḥtp mʒy 22 (šy-n-tʒ)-p.t dʒ.t 20*

²⁰¹ Neugebauer/Parker, *Egyptian Astronomical Texts*, 3.96–98. Astrological activities seem to have been carried out at the site until at least the end of the third century AD. A Greek horoscope dated to AD 291 has been found during the recent excavations (A. Boud'hors *et al.*, in: BIFAO 121, 2021, 121).

²⁰² See n. 10 above.

²⁰³ Heilen, "Hadriani genitura", 265–266.

²⁰⁴ See n. 10 above.

²⁰⁵ See n. 55 above.

²⁰⁶ Winkler, in: Steele (ed.), *Circulation of Astronomical Knowledge*, 252–259.

10. (šy-n-tš)-dwš.t kš 20 ššw tbt(.w) {30} sšr rpy.t 30 špšy.t
11. hr-nh 14 wrš(.t) gnhd [14] nh pš-nty-šth
12. mwt htr(.w) hš(.w) rpy.t (y)šb(.t) tbt(.w) šhn.t
13. db.t 30 wts (?) ššw ... rnp.t 21.t

Translation²⁰⁷

1. Regnal year 5 of 22, Month of Thoth, day 27, 9th (hour) of the day: Harsiesis, son of Tithoes, son of Horos:
2. Sun: Libra 1[4°]: (the terms of) Mercury: Adds | Opposite (?) (the) Sun ... Temple/House | Numbering year 10 | First
3. Moon: Scorpio 22°: (the terms of) Jupiter: Adds | Cancer: 12°: (the terms of) Venus; Pisces 12°: (the terms of) Venus
4. Saturn: Scorpio 8°: (the terms of) Venus: †.
5. Jupiter: Libra 3°: (the terms of) Saturn: Adds
6. Mars: Aries 8°: (the terms of) Venus: [Adds]
7. Venus: Virgo 12°: its own terms: Adds
8. Mercury: Libra 14°: [its own terms]: Adds
9. Ascendant: Aquarius 22°; Descendant: Leo 22°; (Lake of the) Sky: Scorpio 20°;
10. (Lake of the) Netherworld: Taurus 20° | (Lot of the) *Daimon*: Pisces {30°}; (Lot of the) Evil *Daimon*: Virgo 30°; (Lot of) Fortune:
11. Capricorn 14°; (Lot of) Misfortune: Cancer [14°]; (Lot of) Life: Sagittarius
12. (Lot of) Death: Gemini; (Lot of) Flesh: Virgo; (Lot of) Illness: Pisces; Conjunction:
13. Scorpio: 30° | ... fate ...: 21 years

Textual Notes

1. : 22(.t). One would have expected the regnal date to read *tš pr-š.t^{š.w.s.}*, as found in Horoscope 2.1 (see the n. *ad loc.*). The figure corresponds to the number of regnal years of Cleopatra VII. The number cannot refer to the ‘new era’ of Cleopatra VII. It began in her 16th regnal year (37/36 BC), and regnal year 22 (31/30 BC) would thus be regnal year 7 according to the new count (see *P.Bingen* 45.1n). Such a style of dating a reign is not known from other extant documents. It can be assumed that the method was taken over from a king-list of sorts.
- : *sw* [2]7 (Erichsen, Glossar, 709–710). At first glance the scribe seems to have written *sw* 17. The surface has flaked away where the first digit was written. It is not entirely clear, however, whether the upper hook in 20 has largely broken off, the ink is less visible due to the uneven surface, or the scribe mistakenly wrote the lower day number. Astronomical calculations confirm the reading.
2. [14]. The surface of the ostrakon is abraded or has been erased (see the n. to l. 3 below) where the second digit is written, but a semi-vertical and slightly slanting stroke can be seen. The sign could fit with 9, but this sign is usually sublinear and the present stroke is not. A possibility would be to take it as the numeral 1, but one would expect it to be more vertical. The best reading is therefore to take it as the

²⁰⁷ | indicates a new section of information.

- left part of the digit 4. There seem to be faint traces of ink between the left leg and arm of the numeral 10. This is most probably the right-hand part of the sign representing 4. The reading of the numeral also fits with the terms of Mercury according to the so-called Egyptian system of terms.
- : *m[try]*. The reading is tentative since only the initial *m* and the final sign, the man-with-hand-to-mouth determinative, are clearly distinguishable. The remaining section is covered with a salt stain. Although some ink shows through, it is difficult to make out any particular sign. Perhaps it is an unetymological writing of the preposition; the faint traces of ink resemble the *mꜣꜥ*-group. The fact that the word is followed by the Sun  (*rꜥ*) suggests a preposition, for which a possibility is *(n)-mtr-(n)*, ‘opposite’ (see G. Vittmann, *Der demotische Papyrus Rylands 9*, ÄAT 38, Wiesbaden 1998, 536). What the expression signifies is unclear, but if the reading is correct, the prenatal syzygy mentioned on the line below may be considered.
 - . The reading of the sign or signs is not certain, but the group perhaps represents part of a place name.
 - . The hieratic sign resembles  (O6), read as *ḥwt* (Möller, *Paläographie*, 3.33; Verhoeven, *Untersuchungen*, 166–167) meaning ‘temple’, ‘mansion’, ‘house’, or similar. It should be compared to  in Horoscope 2.3. While similar in form, the second orthography is harder to understand as the proposed hieroglyph on its own. The additional dot on the left-hand side of the sign in Horoscope 2 is perhaps unintentionally added ink (see the n. *ad loc.*).
3. (*Hr-ps*)-*štꜣ*. After writing the position of the Moon in 22° in Scorpio, the scribe correctly noted that the position is in the terms of Jupiter. The place where the terms are written appears to be abraded and probably deliberately erased, with another sign inserted over the one representing Jupiter. It resembles one of the writings used for Sagittarius, though not the one used elsewhere in this text (l. 11). Unless this is some sort of *lapsus calami*, it may be a correction. It is perhaps significant that Sagittarius is the zodiac sign following Scorpio, but the correction—if such it is—would be misplaced. Had the scribe wanted to correct the lunar longitude, he should have erased Scorpio and not the terms. That the star determinative also seems partially erased complicates the matter further.
 8. [*tryf dny.t ḥꜣf*]. Although little is preserved of the phrase in question, most of the ink being abraded, its reconstruction is certain because of multiple parallels.
 10. The sign almost completely covered by a salt stain after the fish hieroglyph must be read as the star determinative.
 - 30. The legs of the sign are poorly preserved, giving it a v-shaped appearance instead of the expected x-shaped one.
 11. [*Gnhd 14*]. After the writing of the zodiac sign, the star determinative is still visible. It is followed by an almost completely effaced group, which can be seen to have the following shape: . The fact that the two signs stand in opposition to each other strengthens the suggested reading of 14. In Horoscope 4, the abbreviated *nh*-sign, i.e. Lot 5, on line 9 is also preceded by a numeral (see the n. *ad loc.*) belonging to the previous lot. This suggests that we are dealing with a number here too.

13. . The sign most probably represents  (U40), but there are other possibilities (Verhoeven, *Untersuchungen*, 192–193 and 268). Depending on how it is read, e.g., *wts*, *ts*, or *rs*, the word would render different interpretations in connection with *šzw*, which refers either to the Lot of the *Daimon* or to fate in general. The remark on OMM 1345, a birth note (Menchetti/Pintaudi, in: CdÉ 82, 2007, 237), should presumably be interpreted as referring to the same entity. Besides recording the date of the nativity, the scribe of the Narmouthis ostrakon added the remark: *pzyfšzy*, which has been understood as ‘(For) his fate’ but could equally well be ‘(for) his *Daimon*’ (see n. 152 above).
- . It is uncertain if the group is complete or whether the top of the upper sign is tainted from the smeared and salt-stained sign in the line above. The lower sign is either  (D37) or  (D40), while the identification of the upper one is more uncertain. It is possibly  (W24).
- *rnp.t 21.t*. The first word is written with the hieratic sign. Due to the abrasions and salt stains it is unclear whether another sign follows the numeral. Since the interpretation of the previous words is ambiguous, the significance of ‘21 years’ remains elusive. It could refer in some capacity to the native’s lifetime or a section thereof. Because a similar remark is not extant in any of the other texts, it can at least be assumed that we are dealing with a forecast even if the exact meaning is unclear.

Calculated Positions			Ostrakon		
☉		9°	☉		14°
☾		21°	☾		22°
♃		7°	♃		8°
♄		7°	♄		3°
♅		6°	♅		8°
♀		9°	♀		12°
♁		25°	♁		14°

Horoscope 2

Measurements: 9 cm × 5 cm

Plate 1

Description: Unevenly preserved terracotta-coloured piece with the lower part missing texts on both sides. It is probable that the lower part of the ostrakon is broken off. The ink is generally clear, with a few faded parts towards the edges.

Date: April 22, 44 BC

Time of Birth: ≈ 1 pm – 2 pm

Transliteration

1. *ḥsb.t 8.t n t3 pr-š.t^{f.w.s.} ibd-4 pr.t*
2. *sw 22 (wnw.t) 7.t n hrw qlnd3*
3. *p(š)-r^c k3 4 (p3)-ntr-(dw3) | ḥw.t*
4. *i-ḥ ḥtr(.w) 20.5 (hr)-tšy | 3ḥ.t 6 (hr-p3)-k3*
5. *ḥsb.t 13 | mḥ-1.t | iwf-w3ḥ*
6. *(hr-p3)-k3 p3-nty-3th 25 t3yfdny.t ḥ^cf iwf ḥtb*

7. [(hr-pz)-štz] mw 4 sbkz iwꜣfwꜣh
8. [(hr)-tšy] tbt(.w) 19 sbkz wꜣh
9. [(pz)-ntr-(dwꜣ)] ꜥkꜣ ꜣ tꜣyꜣf dny.t ꜥꜣfwꜣh
10. [sbkz kꜣ] ꜥ10ꜥ (pz)-ntr-(dwꜣ) wꜣh
11. [(rꜥ)-ꜥꜣ mꜣy 19 (rꜥ)-ꜥtp] ꜥmwꜣ 19 (šy-n-tꜣ)-p.t ꜥkꜣ ꜥ 17 (šy-n-tꜣ)-dwꜣ.t dꜣ.t 17]
12. [šꜣw rpy.t (s)šꜣ] tbt(.w) šꜣšy.t [gnhd wrꜣ.t ꜥꜣꜣnꜥ]
13. [ꜣnꜥ gnhd mwt ꜥꜣꜣnꜥ] ꜥꜣꜣ isw [(y)ꜣb(.t) ꜣꜥt ---

Translation

1. Regnal year 8 of the Queen^{L.P.H.}, the month of Pharmuthi,
2. day 22, 7th (hour) of the day: Kolanthes
3. Sun: Taurus 4°: (the terms of) Venus | Temple/House
4. Moon: Gemini 20.5°: (the terms of) Mars | Libra 6°: (the terms of) Saturn
5. Numbering year 13 | First | It adds
6. Saturn: Sagittarius 25°: its own terms: It destroys.
7. [Jupiter]: Aquarius 4°: (the terms of) Mercury: It adds
8. [Mars]: Pisces 19°: (the terms of) Mercury: Adds
9. [Venus]: ꜥTaurusꜥ 7°: its own terms: Adds
10. [Mercury: Taurus] ꜥ10°ꜥ: (the terms of) Venus: Adds
11. [Ascendant: Leo 19°; Descendant]: ꜥAquariusꜥ: 19°; (Lake of the) Sky: ꜥTaurusꜥ [17°; (Lake of the) Netherworld: Scorpio 17°]
12. [(Lot of) *Daimon*: Virgo; (Lot of the) Evil *Daimon*]: Pisces; (Lot of) Fortune: [Cancer; (Lot of) Misfortune: Capricorn]
13. [(Lot of) Life: Cancer; (Lot of) Death: Capricorn] ꜥ(Lot of) Fleshꜥ: Aries; [(Lot of) Disease: Libra ---

Textual Notes

1. The correct reading of the date was already proposed by Quack, in: Brown (ed.), *Interactions of Ancient Astral Science*, 101.
- *tꜣ pr-ꜣ.t^{ꜣ.w.s.}*. One expects a name to follow a title in a dating formula written during the reign of the mentioned ruler. In the Roman period, however, Cleopatra VII could be referred to as βασιλίτσα, ‘queen’, without the addition of her name (see n. 18 above). This fact suggests that this horoscope was composed in the Roman period rather than during the reign of the queen.
2. *Qlndꜣ*. The reading follows the proposal of Escolano-Poveda, in: JHA 53, 2022, 60 and 70, who suggests *qlndꜣ* but later refers to the name as *qlndꜣ*. It is unclear whether the middle sign is to be read as *m* or *n*, but it looks like an angular version of the demotic *nw-pot*. If so, *d* is basically reduced to a vertical stroke. If one takes it as *m*, the downward slanting stroke attached to the semi-circle must be viewed as part of *d*, although one would expect it to be straighter and closer to the horizontal part.
3. . The three signs most probably represent a place name. See the n. to l. 3 in Horoscope 1 for the reading of the first sign (*ꜥꜣw.t*). Given that the last sign is taken

- to be a place determinative, it is possible that it is to be read as *hw.t-rpy.t*, i.e. a writing similar to the one found in Horoscope A. The middle sign would thus be a defective writing of the seated lady sign (B2).
4. (*Hr-ps*)-*k3*. Saturn is seemingly written without the proper star determinative. It is possible, however, that the determinative is lost after the line break. The position corresponds to the previous Full Moon (see Ch. 3.9).
 5. *İwf-w3h*. The shape of *w3h*  might suggest that a preceding *r* was attached to it, i.e. as *r w3h*, but the ‘left ear’, which can be taken as the *r* of futurity, appears to be part of the local orthography of the verb. Even without being preceded by *İwf*, the verb takes the same form (see Ch. 2.1 above), which opposes reading the passage as *İwf r w3h*. Given the parallels, it is to be assumed that the phrase refers to the position of the Moon rather than to the numbering year of the lunar cycle.
 9. [K3]. Only a fragment of what must be the star determinative of Taurus remains of the zodiac sign in question.
 10. *Sbk3 k3*. The reconstruction depends on the calculated position of the celestial bodies at the date for which the ostracon records a nativity. The terms as given by, for instance, Ptolemy do not fit the degrees, but as indicated in Ch. 3.7 there were some minor deviations from the canonical Greek version of the Egyptian terms.
 11. The traces of writing before the star determinative are inconclusive. Given that Taurus (see the note below) is preserved as Midheaven, and the beginning of the line must refer to the Descendant, one is tempted to read *mw*, ‘Aquarius’, here.
 -  is the last visible sign, largely lost before the left line break. The traces resemble the right-hand side of the hieratic E1-sign representing Taurus (see Table 4).
 12. *Tbt(.w)*. Following the order of the system of lots, the Lot of the Evil *Daimon* must be in Pisces; the Lot of Fortune (*špšy.t*) follows. Note that the preserved text suggests that a reversal of positions took place when the astrologer was plotting the lots, similarly to Horoscope 1.
 13. The “tail” of the hieratic piece-of-flesh sign can be seen at the right line break. The restoration of the faint traces of ink is based on the fact that the Lot of Flesh is usually placed in the zodiac sign preceding that of the Sun.

Calculated Positions			Ostracon		
☉	♈	3°	☉	♈	4°
☾	♊	21°	☾	♊	20.5°
♁	♈	23°	♁	♈	25°
♂	♊	5°	♂	♊	4°
♄	♈	22°	♄	♈	19°
♀	♈	5°	♀	[♈]	7°
☿	♈	19°	☿	[♈]	10°

Horoscope 3**Measurements:** 10 cm × 8 cm**Plate 2****Description:** The reverse side of the ostracon appears delta-shaped. The upper part of the text is broken off just as the left-hand side. Although the last line of the horoscope is partially preserved its left side is damaged. The ink in the bottom part of the text is partially washed out.**Date:** January 27, 36 BC**Time of Birth:** ≈ 2 am – 3 am (calculated)²⁰⁸*Transliteration*

1. [hsb.t 16.t n t3 pr-ε3.t^{ε.w.s.} ibd-1 pr.t sw 28 (wnw.t) 8/9.t n grh ---]
2. [p(3)-r^ε] mw [7][.5 (?) sbk3 ---
3. ih isw 2 (hr-p3)-št3 [---
4. (hr-p3)-k3 tbt(.w) [19] sbk3 [---
5. (hr-p3)-št3 rpy.t 2[3] (hr)-tšy [---
6. (hr)-tšy tbt(.w) 24 t3y^εf dny.t [h^εf---
7. (p3)-ntr-(dw3) hr-εnh 12 t3y^εf dny.t [h^εf---
8. sbk3 hr-εnh n (p3)-ntr-(dw3) [---
9. (r^ε)-h^ε [[hr-εnh]] p3-nty-3th 9 (r^ε)-h^εtp htr(.w) 9 (šy-n-t3)-p.t rpy.t [7] [(šy-n-t3)-dw3.t]
10. tbt(.w) [7] š3w mw 3 ššr [m3y] [3]
11. špšy.t 3h.t 14 wr3(.t) isw [14 εnh k3]
12. mwt [dl3.t] h^ε hr-εnh [(y)εb(.t) gnhd]
13. [shn.t] [1] ^{Star det.} [3] [---

Translation

1. [Regnal year 16 of the Queen^{L.P.H.}, the month of Tubi, day 28, 8th/9th (hour) of the night ---
2. [Sun]: Aquarius [7.5° (?)]: [(the terms of) Mercury ---
3. Moon: Aries 2°: (the terms of) Mercury [---
4. Saturn: Pisces [19°]: (the terms of) Mercury [---
5. Jupiter: Virgo 2[3]°: (the terms of) Mars [---
6. Mars: Pisces: 24°: its [own] terms [---
7. Venus: Capricorn 12°: its [own] terms [---
8. Mercury: Capricorn 11°: (the terms of) Venus [---
9. Ascendant: [[Capricorn]] Sagittarius 9°; Descendant: Gemini 9°; (Lake of the) Sky: Virgo 7° [(Lake of the) Netherworld]:
10. Pisces [7°]; (Lot of the) *Daimon*: Aquarius 3°; (Lot of the) Evil *Daimon*: [Leo] [3°]
11. (Lot of) Fortune: Libra 14°; (Lot of) Misfortune: [Aries] [14° (Lot of) Life: Taurus]
12. (Lot of) Death: Scorpio: (Lot of) Flesh: Capricorn [(Lot of) Illness: Cancer]
13. [Conjunction]: [...]: 3° [---

²⁰⁸ The date is calculated through the positions of the planets and the zodiac sign rising in the eastern horizon.

Textual Notes

1. *T3 pr-ꜣ.t^{ws.}*. Considering the phrasing in Horoscope 1, *22.t*, ‘22 (years)’, is also a possible reconstruction.
2. *7.5*. The reading of the numeral is not certain. Paleographically the remaining traces rather resemble the right leg of 10. It appears to be written above a horizontal and slightly slanting stroke, which fits with the signs for 7 and 8 (see Erichsen, Glossar, 698). To try to read it as 17 (see the n. to l. 1 in Horoscope 5) or similar is contradicted by the expected longitudinal arc, which should be roughly 55° and not 45°. Perhaps rather the remains constitute two strokes (see the n. to l. 9 in Horoscope 7), which merge at the right-hand side, creating the illusion of the digit 10. The half degree is reconstructed.
3. At the end of the line *hsb.t 23*, ‘numbering year 23’, should probably be reconstructed.
4. [19]. Only vague traces remain of the longitude. The figure 10 fits best with the traces of the first sign, while the second one slants down steeply to the right, which accords well with the number 9.
5. 2[3]. The figure 20 is clearly visible, while the second digit has almost completely vanished from the surface of the ostracon. Judging from the few faded traces of ink still preserved and the size of the abrasion, the suggested number seems to be the most viable restoration. The terms of Mars occupy the distance between 19°–27° in Virgo in the Egyptian system of terms presented by Ptolemy.
9. [[*Hr-nh*]] *pꜣnty-ꜣth*. The scribe first wrote Capricorn before realising his mistake. The zodiac sign is overwritten with the hieratic arrow sign representing Sagittarius (see Table 4). It is clear, furthermore, that this mistake must have been realised early on in the writing process, because the mistake does not have bearing on any other position mentioned in the text.
11. [*Isu*]. The zodiac sign is barely visible; most of the group is broken away. Only the upper part is preserved, but the traces do not fit any other reading.
12. *Dl.t*. The sign has a shape slightly different from the other instances in the Corpus, but there can be no doubt as to its reading. It can be noted that the right-hand side of the following star determinative is smeared out. It is unclear if the scribe had merely applied too much ink or whether he wrote the piece-of-flesh hieroglyph after forgetting to write the star, which he later corrected by writing the latter over the former.

Calculated Positions			Ostracon		
☉	≈	9°	☉	≈	7.5°
☾	𐀀	7°	☾	𐀀	2°
♃	𐀁	16°	♃	𐀁	19°
♄	𐀂	30°	♄	𐀂	23°
♅	𐀃	20°	♅	𐀃	24°
♀	𐀄	19°	♀	𐀄	12°
♁	𐀅	20°	♁	𐀅	11°

Horoscope 4**Measurements:** 8 cm × 5 cm**Plate 2****Description:** Delta-shaped and rather dark piece of pottery. The right-hand side and bottom of the ostrakon are preserved with the upper part and left-hand side missing. The surface of the sherd suffers from deterioration. In the middle the ink is abraded and partially smeared out.**Date:** February 28 – March 4, 19 BC²⁰⁹**Time of Birth:** ≈ 1 pm – 2 pm (calculated)*Transliteration*

1. *Traces*
2. (hr-pʒ)-kʒ [---
3. (hr-pʒ)-štʒ [tbt(.w)] [---
4. (hr)-tšy isw [.] [---
5. (pʒ)-ntr-(dwʒ) mw [4] [sbkʒ ---
6. sbkʒ mw [n] [(pʒ)-ntr-(dwʒ) ---
7. (rʰ)-hr mʒy [6] [(rʰ)-hʦp] [mw 6 (šy-n-tʒ)-p.t kʒ 4 (šy-n-tʒ)-dwʒ.t dʒ.t]
8. 4 šʒw ʒh.t {1} 9 sšr [isw] [9 špšy.t htr(.w) 3 wrʒ(.t)]
9. pʒ-nty-ʒth [3] [nh rpy.t mwt [tbt(.w) ---
10. shn.t ʒh.t 1 ʒpl [n] [---
11. pʒ hry iry-ʒʒ.w n ... [---

Translation

1. ---
2. Saturn: [---
3. Jupiter: [Pisces] [---
4. Mars: Aries [.] [---
5. Venus: Aquarius [4°]: [(the terms of) Mercury]
6. Mercury: Aquarius [11°]: [(the terms of) Jupiter]
7. Ascendant: Leo [6°; Descendant]: [Aquarius 6°; (Lake of the) Sky: Taurus: 4°; (Lake of the) Netherworld: Scorpio]
8. 4° (Lot of the) *Daimon*: Libra {1} 9°; (Lot of the) *Evil Daimon*: [Aries] [9° (Lot of) Fortune: Gemini 3°; (Lot of) Misfortune]
9. Sagittarius 3°; (Lot of) Life: Virgo; (Lot of) Death: [Pisces ---
10. Conjunction: Libra 1°; Apoll[on] [ios ---
11. The chief of the *pastophoroi* of ... [---

Textual Notes

1. Only a short stroke slanting down to the right is preserved on this line. It is possible that it belongs to a star determinative, i.e. being its right leg. Following the structure of these horoscopes, the line surely contained the position of the Moon.

²⁰⁹ Due to the poor state of preservation, neither the position of the Sun, Moon, and Saturn are extant. Depending on how much error margin can be tolerated also a date from mid February to mid March in 6 BC is a possibility, but the given range fits best the preserved positions.

3. *Tbt(.w)*. After *(hr-pꜣ)-štz*, ‘Jupiter’, there are traces of ink visible. The reading must remain tentative, but the traces fit with the upper right part of the suggested sign; the head and lower fin appear to be visible.
5. *4*. Only vague traces of the numeral are visible; what is preserved is the right half of the number. The restoration after the left line break is based on the terms of the preceding zodiac sign.
6. *n*. Only traces of the signs are visible; besides being faded, the two signs are damaged by flaking of the surface. The restoration after the left line break is based on the terms of the preceding zodiac sign.
7. *Mꜣy*. The sign is heavily abraded, but it is clear that its upper side contains a stroke, which is slanting down leftwards.
 - $\lceil(Rc)-hꜣp\rceil$. Only vague traces of the sign are preserved. The restoration of its position depends on the reading of Leo in the Ascendant.
8. *4*. The numeral confirms the reading of the figure 6 in the preceding line. It must have belonged to the zodiac sign in the position of the Lower Midheaven.
 -  *{7}9*. The numeral is written in hieratic (Möller, Paläographie, 3.60) and partially overwrites the star determinative of the previous word. On the original the sign representing 10 is very faded, perhaps even deliberately erased. Considering the standard calculation of the Lot of the *Daimon* (see Chap. 3.4) only 9° is expected, the double-digit figure is best viewed as a scribal error.
 - *šsw*. Only the part representing the beard of the hieratic sign (D1) denoting Aries is visible before the left-hand line break.
9. *Pꜣ-nty-šth*. The zodiac sign mentioned in the beginning of this line indicates the position of *wꜣꜣ(.t)*, ‘(Lot of) Misfortune’.
 - *3*. Only traces of ink on the abraded surface are preserved of the numeral. The reading is uncertain, but the left-hand vertical stroke can still be seen.
 - *Mwt*. The lot is only partially preserved, but the uniform structure of these texts ensures the suggested reading, which also fits well with the preserved traces of ink before the left line-break.
10. *7*. The sign after *šth.t*, ‘Libra’, has been read as the numeral 7, being a simple vertical stroke. The interpretation is reinforced by the fact that the position of *šhn.t* is usually qualified with a longitude. There is a possibility, however, that the sign indicates that the calculations of the horoscope have come to an end, and what follows is a name.
 - The first three letters, *ꜣpl*, of the personal name that is restored as Apollonios (see NB Dem., 12–14) can be clearly distinguished. The fourth and last letter before the left line-break is more difficult to read. It is understood as a small version of the round *n* stemming from the *nw*-pot hieroglyph. It is possible that the name was qualified by a patronym. But after comparison with Horoscope 7, where a name followed directly by a priestly title is found, it is not certain that the patronym of Apollonios would have been written out. Although the name could signal a Greek ethnicity, this is far from certain. There are individuals with Greek names attested as temple servants of Egyptian gods: Egyptians with double names, one Greek and

one Egyptian, and Greeks who entered the service of a deity. There were also people of a mixed heritage in such roles (see, e.g., R. Birk, *Türöffner des Himmels: Prosopographische Studien zur thebanischen Hohepriesterschaft der Ptolemäerzeit*, *ÄA* 76, Wiesbaden 2020, 443–452; Ch. Fischer-Bovet, *Army and Society in Ptolemaic Egypt*, Cambridge 2014, 321–323, 326–327, and 369–371; G. Gorre, *Les relations du clergé égyptien et des Lagides d’après les sources privées*, *StudHell.* 43, Leuven 2009, 528–537; G. Vittmann, *Beobachtungen und Überlegungen zu Fremden und hellenisierten Ägyptern im Dienste einheimischer Kulte*, in: W. Clarysse/A. Schoors/H. Willems [eds], *Egyptian Religion the Last Thousand Years: Studies Dedicated to the Memory of Jan Quaegebeur*, *OLA* 85, Leuven 1998, 1233–1241).

11. *Hry ỉry-ꜥz.w.* See F. Hoffmann/J.F. Quack, *Pastophoros*, in: A.M. Dodson/J.J. Johnston/W. Monkhouse (eds), *A Good Scribe and an Exceedingly Wise Man: Studies in Honour of W.J. Tait*, *GHP Egyptology* 21, London 2014, 127–156, for the title in question. The last line is abraded and the surface faded, which complicates the reading. Of the title, only the first and last elements are clearly visible: *ỉry* and a house determinative, above which a vertical stroke is written . Between the two signs, traces of the following one  (*vel sim.*) can be seen, which favours the suggested reading (see Erichsen, *Glossar*, 89, s.v. *wn-pr*; Hoffmann/Quack, in: *Fs. Tait*, 139–146). The following word consists of a smeared vertical sign, which is best taken as a plural stroke. Traces of two additional signs can be detected before the line break. The last signs are faded beyond recognition, but the first may be taken as a genitival *n*, after which the name of a deity would follow. Considering the origin of the piece, at first one could be tempted to read everything following *pꜣ ỉry* as *Ỉw.t-tꜣ-Ỉỉry-ỉbꜣ*, ‘Athribis’ (*CDD* Ỉ, 38). There are palaeographical problems with such an interpretation, however. The last element should have left other traces than the ones visible.

Calculated Positions ²¹⁰			Ostrakon		
⊙	Ỉ	11°–15°	⊙	---	---
☾	ⲁ–ⲙ	3°–21°	☾	---	---
Ỉ	ⲙ	3°	Ỉ	---	---
Ⲕ	Ỉ	1°–2°	Ⲕ	Ỉ	---
♁	Ⲣ	22°–24°	♁	Ⲣ	---
♀	ⲗ	1°–3°	♀	ⲗ	4°
♃	ⲗ	14°–19°	♃	ⲗ	11°

Horoscope 5

Measurements: 8.5 cm × 5.75 cm

Plate 3

Description: Rectangular and fairly light piece of pottery. The lower part of the ostrakon is missing. The surface is battered and the upper left-hand side is grimy. The ink is worn off, par-

²¹⁰ The calculation is made for the period between February 28 and March 4, 19 BC.

ticularly in the middle throughout the text and on the lower right-hand side of the piece. Traces of a previous, largely erased astrological text seem to be present.

Date: November 16/17, 14 BC

Time of Birth: \approx 1 pm – 2 pm

Transliteration

1. [hsb.t] 17.t ibd-3 šh.t sw 19 | 20 (?) / (wnw.t) 7(.t) (?) n hrw \ ... pa twtw (?) ...
 2. [p(š)]-r[] dl3.t 24 (hr-pš)-št3 [wšh]
 3. [i'h] [tbt(.w)] 1 (pš)-ntr-(dwš) | dl3.t [12] (pš)-ntr-(dwš) | htb | hsb.t 19.t | mh-1.t
 4. [(hr-pš)-k3] pš-nty-šth 29 (hr)-tšy [wšh]
 5. [(hr-pš)-št3] rpy.t n (pš)-ntr-(dwš) wšh
 6. [(hr)-tšy] htr(.w) 12 (hr-pš)-št3 [wšh]
 7. [(pš)-ntr-(dwš)] [pš-nty-šth 16] tšy f dny.t hšf [wšh] (?)
 8. [sbk3]^{Star det.} dl3.t [5] (?) (hr-pš)-k3 [wšh]
 9. [(r)-hš isw . (r)-htp] [šh.t] [. (šy-n-tš)-p.t hr-nh . (šy-n-tš)-dwš.t gnhd .]
- x+10. hš(.w) šh.t
- x+11. (y)šb.t isw
- x+12. [šhn.t htr(.w) ...] (?)
- x+13. pr (?)

Translation

1. [Regnal year] 17, the month of Hathyr, day 19 | 20 (?) / 7th (hour) of the day (?)
..., son of Tithoes (?) ...
 2. [Sun]: Scorpio 24°: (the terms of) Jupiter: [Adds]
 3. [Moon]: [Pisces] 1°: (the terms of) Venus | Scorpio [12°]: (the terms of) Venus |
Destroys | Numbering year 19 | First
 4. [Saturn]: Sagittarius 29°: (the terms of) Mars: Adds
 5. [Jupiter]: Virgo 11°: (the terms of) Venus: Adds
 6. [Mars]: Gemini 12°: (the terms of) Jupiter: Adds
 7. [Venus]: [Sagittarius 16°]: its own terms: Adds
 8. [Mercury]: Scorpio [5°]: (the terms of) Saturn: Adds
 9. [Ascendant: Aries ...; Descendant]: [Libra] [... (Lake of the) Sky: Capricorn ...;
(Lake of the) Netherworld: Cancer ...]
- x+10. (Lot of) Flesh: Libra
- x+11. (Lot of) Illness: Aries
- x+12. [Conjunction]: [Gemini ...] (?)
- x+13. House (?)

Textual Notes

1. *Hsb.t* 17. Only a faint vertical stroke on the right-hand edge of the ostrakon remains of *hsb.t*. The numeral 7 in 17 is written with a vertical stroke under the sign for 10.

- *sw 19* | *20* (?). The scribe appears to have provided two day-dates, which are divided by a slightly slanting vertical stroke. While *sw 19* is straightforward, the following ordinal day number resembles its expected writing, but must still count as unsure (see Erichsen, Glossar, 710). One would expect the scribe to have provided a double date, one Alexandrian and one according to the civil calendar, thus 22. But such a reading does not accord well with what potentially could be the second digit of the date. ‘Day 20’ seems to be a better palaeographical fit but one wonders why the astrologer provided two dates. Perhaps the precise date of birth was unclear.
- What follows the date is left unread, but a tentative interpretation is that it constitutes the name of the native. One would have expected the time of the day when the birth took place but this element is found below the line under what has been taken as the patronym of the native.
- *Pa*. The filiation is written as a flat stroke instead of a slightly slanting one, resembling the genitive *n* (see S.P. Vleeming, Demotic and Greek-Demotic Mummy Labels and Other Short Texts Gathered from Many Publications, StudDem. 9, Leuven 2011, 846–851).
- *Twtw* Because of the grimy surface nothing of what follows the personal name can be read. Judging from the parallel in Horoscope 1, another name, a paponymic, can perhaps be expected to have followed, perhaps separated from the present name by the irregularity in the ceramic. Towards the line break scant traces of ink seem to remain. It is also possible that the it would have been the name of a locality.
- (*Wnw.t*) $\gamma(.t)$ *n hrw*. The remark is added below the line, after the first names were written out. The numeral is almost entirely obliterated; only a vertical stroke can clearly be seen. Whether the following, darker lines are ink or dirt is hard to discern. It is possible that the numeral is 1, but 2 and 7 would also be possible. Considering the reconstruction of Aries in the Ascendant, 7 appears to be the best reading of the traces before *n hrw*, ‘of the day’.
- 2. [*P(3)*]-[*r*]. Only the luminary’s divine determinative is preserved.
- [*W3h*]. The reading of the remark is difficult. There are some faded traces of ink preserved after the specification of the terms (Jupiter), and following the pattern of the rest of the ostraca, interpreting the traces as the remains of this word seems plausible.
- 3. *Tbt(.w)*. The right side of the sign is lost.
- 12. The numeral after Scorpio is partially effaced. The suggested reading depends on the preserved ink traces, the available space between the star determinative of the zodiac sign, and the specification of the terms in Venus. There seems to be enough space for two signs. The second one resembles the numeral 2, which leads to the conclusion that the first one ought to be the 10. The position should correspond to the previous New Moon (see Ch. 3.9).
- 7. [*P3-nty-3th*]. Only faint traces of the star determinative remain. The restoration depends on the calculated position of Venus for the given date.

- 16. The terms of Venus in Sagittarius occupy the sequence between 13° and 17° according to the Egyptian system of terms used by the practitioner who wrote the ostracon. The numeral is almost entirely obliterated, but a faded diagonal stroke can be seen before the possessive pronoun. The traces thus fit with the reading of the numeral 6 (Erichsen, Glossar, 697–698).
8. 5. The longitude of Mercury in Scorpio has almost completely vanished. Only the terms of the planet are visibly preserved. It is said to be in the terms of Saturn, which in the traditional Egyptian system occupy the distance between 25° to 30°. Of the numeral, only the remains of a vertical stroke with a horizontal stroke at its top sticking out to the left are still visible, which must be interpreted as the digit 5. It is theoretically possible that the astrologer had written a compressed sign for 20 before, but no traces of it are detectable. Considering the terms given, it is tempting to reconstruct 25°. Nevertheless, there are deviations from the traditional system in the corpus, which may explain the departure from what is expected. Alternatively, the scribe mistakenly conflated the terms of Saturn with those of Mars, which usually occupy the first 6° or 7° in the sign.
9. [3*h.t*]. Only the top of the Sun in the horizon sign is visible together with the upper part of a star determinative. Although part of the sign depicting the Sun appears slightly angular, this is also the case in several instances in the corpus edited here. A contributing reason for why the zodiac sign is restored as being in the Descendant is the fact that at 1 pm on the given date Aries was at the horizon and thus the rising sign. The remaining signs follow the expected order. It is impossible, however, to restore the number of degrees from the preserved materials.
- x+12. *Shn.t*. Only faint traces remain, but the reconstruction is guided by the general structure of these texts.
- x+13. *Pr*. Only the sign taken to represent the house and what seems to be the remains of a star determinative can be discerned. The reading is uncertain, however. Given the lacunose state of this line no sensible solution for the reading can be offered beyond pure speculation.

Calculated Positions			Ostracon		
☉	♍	26°	☉	♍	24°
☾	♈	5°	☾	♈	1°
♁	♉	28°	♁	♉	29°
♂	♊	7°	♂	♊	11°
♆	♋	8°	♆	♋	12°
♀	♌	17°	♀	♌	16°
♃	♍	7°	♃	♍	5°

Horoscope 6

Measurements: 7.5 cm × 2.3 cm

Plate 3

Description: Rectangular and fairly light piece of pottery. Only the first four lines remain. The left-hand side is slightly worn off. The surface is well preserved.

Date: August 30, AD 1

Time of Birth: \approx 7.30 am – 8.30 am

Transliteration

1. *hsb.t* 31 *tpy* 3*h.t* *sw* 2/8 (*wnw.t*) 1.t *n hrw*
2. *p(3)-r^c rpy.t* 11 (*p3*)-*ntr*-(*dw3*) *w3h*
3. *i^ch* *htr(.w)* 5 *sbk3 w3h* | *gnhd* 30 (*hr-p3*)-*k3* Γ *tbt(.w)* Γ 30 (*hr-p3*)-*k3* | *hsb.t* 8.t (sic)
4. (*hr-p3*)-*k3* *gnhd* 7 (*hr*)-*tšy* \ddagger
5. [(*hr-p3*)-*št3* ...] Γ *sbk3* Γ [---

Translation

1. Regnal year 31, the month of Thoth, day 2/8, 1st (hour) of the day
2. Sun: Virgo 11°: (the terms of) of Venus: Adds
3. Moon: Gemini 5°: (the terms of) Mercury: Adds | Cancer 30°: (the terms of) Saur; Pisces: 30° (the terms of) Saturn | Numbering year 8 (sic)
4. Saturn: Cancer 7°: (the terms of) Mars: \ddagger
5. [Jupiter: Libra ...]: (the terms of) Γ Mercury Γ : [---

Textual Notes

1. : *sw* 2/8. Note that there are two vertical strokes slanting to the right-hand side below the group representing the day number. While this could be taken as an orthographical peculiarity, the two strokes are also often used as a writing for the numeral 8. Here such a number would make sense, because the second day of Thoth in the Alexandrian calendar would at this time correspond to day 8 of the Egyptian civil calendar in the same month.
3. *Tbt(.w)*. The zodiac sign is *de facto* written on two lines. The second half, the adjacent star determinative, is written after the time of nativity in line 1. After providing the additional position of 30° Cancer to be the terms of Saturn, the next position is Pisces 30°, also being in the terms of Saturn. It is probable that the left side of the ostrakon is chipped off or worn down by a few millimetres. Only half of the fish sign is preserved. It is clear that the scribe did not find enough room to write out the determinative of the zodiac sign and thus needed free space for it elsewhere. The determinative was added after the specification of the nativity. The required space was found where one could have expected the name of the native, i.e. parallel to line 1. In order to distinguish the two lines, the scribe added a vertical stroke after *n hrw*, ‘of the day’, on line 1.
- : *8.t*. The sign is written with two horizontal strokes, which in early demotic or hieratic can be taken as a writing of the numeral 8 (Erichsen, *Glossar*, 698; Möller, *Paläographie*, 3.59; Verhoeven, *Untersuchungen*, 212–213). According to the *Glossar* such a writing of 7 also exists. The date of the text falls in the numbering year 7, but given the normal way of writing the numeral it is more likely that the astrologer committed a mistake. One would expect to find the remark on whether the Moon was waxing or waning to follow the numeral. However, due to the fact that the astrologer miscalculated the lunar year, and consequently plotted the wrong longitude for

the prenatal syzygy he may have been unable to determine in what phase the Moon was at the time of birth.

5. The reconstruction depends on the visible traces. Only the upper part of the heart sign is visible, which must indicate the terms of Mercury following the structure of these texts.

Calculated Positions			Ostracon		
☉	♍	7°	☉	♍	11°
☾	♋	5°	☾	♋	5°
♃	♌	2°	♃	♌	7°
♄	♍	14°	♄	---	---
♅	♍	11°	♅	---	---
♆	♌	4°	♆	---	---
♇	♍	29°	♇	---	---

Horoscope 7

Measurements: 10 cm × 8 cm

Plate 4

Description: The obverse side of the ostracon appears delta-shaped and has a light brown colour. The piece is broken off on the right-hand side resulting in substantial loss of text. The first lines of the text are as a consequence missing. The surface at first gives the impression of being only marginally worn, and that the ink is generally well preserved. Yet a closer inspection shows that ll. x+1–2 and x+9–8 are almost completely obliterated, and only very faint traces of ink can be distinguished. The bottom of the text is missing. The left-hand side is extant. The last line of text is found on the right-hand side of the sherd and is written perpendicular to the main text running from the bottom to the top. The inventory number seems to be written over the very faint traces of ink of what is understood to have been the first three lines of the text. A name of is added on the left-hand side perpendicular to the text of horoscope. This may indicate lack of space below the main text.

Date: ---

Time of Birth: ---

Transliteration

- x+1. ---] 9(.t) [n hrw] (?)
- x+2. *Traces*
- x+3. [i'h ---] (p3)-ntr-(dw3) mh-2.t
- x+4. [(hr-p3)-k3 --- t]zyf dny.t h'ef
- x+5. [(hr-p3)-št3 ---] [2]1 tzyf dny.t h'ef
- x+6. [(hr)-tšy ---] 23 (hr-p3)-št3
- x+7. [(p3)-ntr-(dw3) ---]^{Star det.} 8 tzyf dny.t h'ef
- x+8. [sbk3 ---] [6] (hr)-tšy
- x+9. *Traces*
- x+10. *Traces*
-
- x+11. hr-nfr p3 w'cb 3

Translation

- x+1. ---] 9th [hour of the day] (?)
 x+2. ---
 x+3. [Moon: ---] (the terms of) Venus | second
 x+4. [Saturn ---]: its own terms
 x+5. [Jupiter: ---] [211°: its own terms
 x+6. [Mars: ---] 23°: (the terms of) Jupiter
 x+7. [Venus ---] 7°: its own terms
 x+8. [Mercury: ---] [61°: (the terms of) Mars
 x+9. ---
 x+10. ---
 ———
 x+11. Hanouphis, the superior priest.

Textual Notes

- x+1. *g(.t)* [n hrw]. The digit is the only more or less clearly visible sign on the present line. It is followed by a circular sign on top of which there is a short horizontal stroke. Unfortunately, the latter has been partially covered with the present museum inventory number.
- x+3. (*pꜣ*)-*ntr*-(*dwꜣ*). The mention of Venus just after the right line-break suggests that it is the terms of the planet. The line ought to refer to the position of the Moon. It is unclear whether the terms refer to the earth's satellite at the date of birth or to a prenatal syzygy. If the latter is the case, it is possible that the primary position of the Moon would have been recorded on the line above.
- Since the line concludes with a remark about the lunar phase 𓆎 (see Chap. 3.8), one would have expected a year of the lunar cycle to precede it. No traces of it can be found, however.
- x+4. Since Saturn is the first proper planet to be enumerated, the line must refer to it as being in its own terms.
- x+5. This line should refer to Jupiter as the second planet to be enumerated being in its own terms.
- x+6. The longitude of 23° of a planet, surely Mars, in a zodiac sign corresponding to the terms of Jupiter must entail the same possible zodiac signs as in line x+4 above save for Taurus.
- x+7. The first damaged sign must be taken as the remains of a star determinative belonging to the name of a zodiac sign.
- 𓆎 : 7. The reading is not certain. The digit 7 is often written with one stroke in this corpus of texts: 𓆎 (e.g., Horoscope 6.4). But it is not clear whether this is what can be seen. The lower stroke appears too short. This renders the reading uncertain. The terms of Venus that are appropriate for the present instance are, according to the system provided by Ptolemy: Aries (7°–12°); Taurus (1°–8°); Leo (7°–11°); Scorpio (8°–11°); and Pisces (1°–10°). Horoscope 5 indicates that the boundaries of Venus's place in Scorpio were larger than those given by the

Greek text. It is therefore possible that its boundaries expanded by at least one degree on both sides.

- x+8. 6. Only part of the digit 6 is visible after the right line break. Since it can refer to three points, 6°, 16°, and 26°, it is not clear which zodiac sign should be reconstructed.
- x+11. See NB Dem., 824, for the personal name *hr-nfr*, ‘Harnouphis’.

6. Conclusion

The seven horoscopes discussed in this paper have proven to be of major importance for our understanding of astrological practices in Egypt close to the time of the turn of the Common Era. Recording among the earliest nativities known from Egypt, they are also by far the most advanced of their kind. Many of the doctrines that these texts attest were hitherto found only in texts composed roughly a century later, though the terminology used is found in texts that are more or less contemporary. Even if some of the theoretical connection between the celestial bodies found in these horoscopes are known from later times, a few ideas seem not to have made their way into later Hellenistic practices. Or they only survived in a modified form. An example of this phenomenon is the lots. In the current texts, a different setup is displayed than usually encountered in the Greek horoscopes or the theoretical treatises in that language.

The texts suggest that the systems of lots and of the twelve places must have developed from the same set of ideas. These are grounded in an earlier concept of opposition between protective or benevolent forces and those that were malevolent and worked to the detriment of humanity, and of their connection to new-borns or the beginning of periods of time. Previously terrestrial powers were transformed into celestial entities that affected people in a similar way as their earthly predecessors. The lots and the places were devised in three different ways. One system, the lots of exact longitude, was only feasible in horoscopes of a more advanced nature, such as the texts published here. At one point, an alternative system of lots was developed. They could also appear in a simplified version covering a whole sign instead of a single degree. The latter method could also in theory have been used with a horoscope containing only the most rudimentary astronomical information. Finally, the system of the places was a further simplification and may have been developed specifically for simpler procedures, consultations that only required basic horoscopes. The two main systems of influential points or places, however, are by no means mutually exclusive.

The various writings of both planets and zodiac signs can furthermore point to a diversity among local traditions. Although the conventions in these texts appears to differ in the details from what is known from other localities, it is not clear whether they represent a tradition developed at the site where the horoscopes were found or whether it arrived there from another locality.

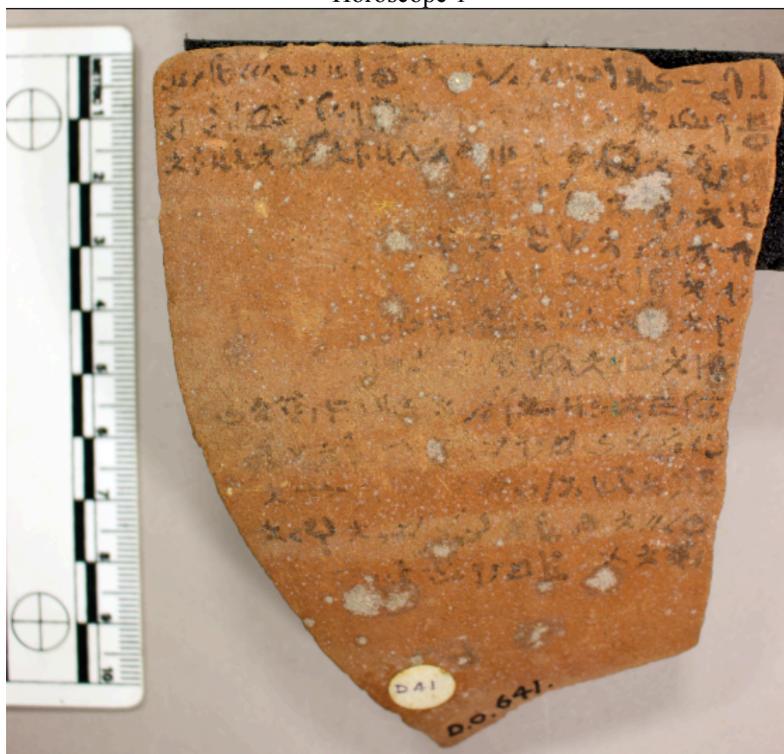
Although some of the nativities are Ptolemaic (Horoscopes 1, 2, and 3), it is certain that the text recording the earliest birth was written during Roman rule. It is unclear in what timespan the texts were actually written, but a gap of at least 20 years between birth and horoscope is reflected in some of them.

It is probable that the ostraca were produced by temple personnel, priests of various ranks, who must have sold their services as astrologers in addition to performing prescribed

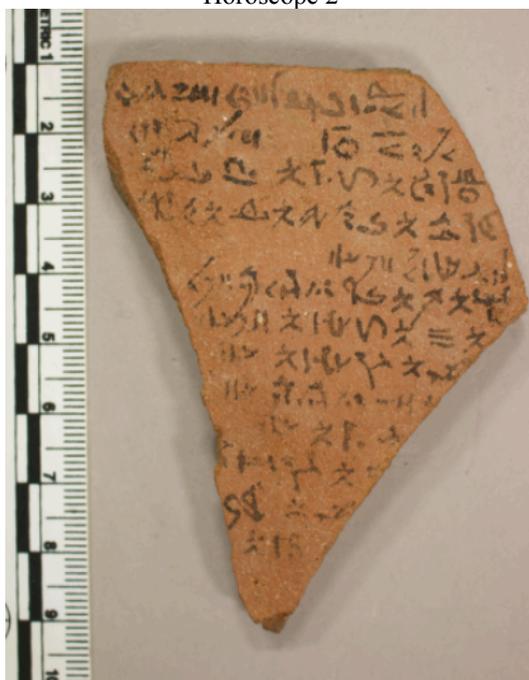
cultic duties. The names of the planets and zodiac signs used in the texts suggest theological training. The fact that the astrologers must have had access to fairly advanced astronomical tools in order to be able to calculate the positions of the planets also points in the same direction. This conclusion affirms a strong connection between the ancient Egyptian temple and the astral arts.

Tafeln: Horoscope 1-7

Horoscope 1



Horoscope 2



Horoscope 3



Horoscope 4



Horoscope 5



Horoscope 6



Horoscope 7

