

29. HOROSCOPE

P. 11831

6,5 × 8 cm

29 BCE (?)

Acquired by Fr. Zucker in 1910

Plate XXXVI

Provenance unknown

The text is written in dark ink in a small semiformal hand (late Ptolemaic or 1st century), with frequent abbreviations of names of heavenly bodies and zodiacal signs, along the fibers on a small rectangular “ticket” of papyrus. The text begins immediately below the upper edge, with a modest (at most 1cm) left margin and practically no right margin, leaving about 2 cm margin at the bottom. The horoscope as transcribed below appears to be complete, omitting introductory or closing formula, date, and name of the native. Between lines 2 and 3 is a line of tiny writing in a similar ink, running from the left margin of the horoscope to a little over half way across; this appears to have been inserted after the horoscope was written, but the letters are too abraded for anything to be read with any confidence.

Half way between the last line of the horoscope and the bottom edge of the papyrus is a line of text written in a paler ink and in a different but roughly contemporary hand forming regular, rounded, and well-separated letters: μητηρ . ησεθεοφορουμεν . This text appears to begin about the same distance from the left edge of the papyrus as the horoscope but continued past the right edge, so that it probably was a feature of the original larger sheet of papyrus from which the ticket was cut to make the horoscope. While uncertain of the nature of this earlier text, we do not believe it has anything to do with the horoscope. Since the papyrus has been mounted on an opaque matting, the back is presumably blank.

The format of this horoscope is atypical of a horoscope on papyrus in lacking an introductory section giving the name and date. The name of the native is frequently omitted in papyrus horoscopes; among those computed for dates up to the beginning of the 2nd century of our era, the horoscopes bearing a name are in fact slightly outnumbered by those that omit the name. The date is less frequently omitted, and omission of name *and* date is comparatively rare, especially before the 3rd century: known instances include P.Oxy.Astr. 4236a (for CE 80), P.Oxy. XXXVI 2790 (CE 255 and 257) P.Oxy.Astr. 4255 (CE 256), P.Oxy.Astr. 4261 (CE 289), and P.Oxy.Astr. 4263 (CE 299). (P.Oxy. II 307, an elaborate horoscope, may have had an introductory section broken off at the top.) Such horoscopes would appear to have been private notes either of the astrologer or of the client.

Like the majority of Greek horoscopes on papyrus, this one states only the zodiacal signs occupied by the heavenly bodies and astrologically significant points without the precision of degrees. The data are not listed according to the usual ordering principle, i.e. with the planets in decreasing order of presumed distance from the Earth (Saturn, Jupiter, Mars, Venus, Mercury). With the exception of the

midheaven and ascendant, the positions follow the sequence of the signs in the zodiac, a practice that is otherwise not attested in papyrus horoscopes before the mid 2nd century; but it is not obvious why the cardines were not recorded either in the appropriate places (ascendant with Jupiter, midheaven following the moon) or following the planets if a zodiacal ordering was intentional.

To determine the date for which the horoscope was computed, we employ the following method:

(1) Find the years, within the admissible chronological span, during which the slowest planets, Saturn and Jupiter, were in or near the stated zodiacal signs. These are distributed at approximately 59-year intervals.

(2) For each of these years, use the Sun's position to narrow down to an interval of about 30 days (for the Sun to be in Cancer, the date must fall in late June or July) and the moon's position to narrow down to about a 2-day interval. Further narrowing is not possible for a horoscope giving positions only as zodiacal signs without degrees.

(3) Check the positions of Mars, Venus, and Mercury for acceptable agreement.

(4) Establish the approximate time of day or night from the positions of the ascendant (and other cardines) and the Sun (the time would be about 3 A.M. for our horoscope).

Since the hand appears to be 1st century BCE or 1st century CE, whereas no papyrus horoscope is known predating the late 1st century BCE, we took into consideration the interval 100 BCE to CE 200. We list below the years in which Saturn and Jupiter were in or near the signs indicated in the horoscope, together with Mars' approximate zodiacal position in late June and July:

<i>Year</i>	<i>Mars</i>
88 BCE	Virgo
29 BCE	Taurus
CE 31	Cancer, Leo
CE 90	Libra

Thus only 29 BCE has Mars even close to Aries. In that year, the Moon was in Leo around the desired time of year from July 1–3. We compare below the text's positions for all the heavenly bodies with recomputation by modern theory, indicating discrepancies less than 10° by “!” and larger discrepancies by “!!”:

29 BCE July 2, 3 AM (meridian of Alexandria)

<i>Text</i>	<i>Modern</i>
Saturn Gemini	Gemini 28°
Jupiter Taurus	Taurus 18°
Mars Aries	Taurus 2° (!)
Venus Cancer	Gemini 16° (!!)
Mercury Gemini	Leo 4° (!!)

Sun Cancer	Cancer 7°
Moon Leo	Leo 9°

While errors in ancient computations of the two inferior planets, especially Mercury, are not especially rare, one does not expect to find large errors for both. (A discrepancy of as little as 2° for Mars is not a problem since it could be attributed to imprecision in the ancient planetary theory or to a difference in the definition of the boundaries between the zodiacal signs relative to the modern tropical frame of reference.) On the other hand for a date one lunar month earlier we get all the planets in or within negligible distance of the correct signs, though at the cost of a large discrepancy for the Sun. On balance this appears to be more plausible than multiple errors.

29 BCE June 5, 3 AM

<i>Text</i>	<i>Modern</i>
Saturn Gemini	Gemini 24°
Jupiter Taurus	Taurus 12°
Mars Aries	Aries 14°
Venus Cancer	Cancer 0°
Mercury Gemini	Gemini 20°
Sun Cancer	Gemini 11° (!!)
Moon Leo	Leo 14°

We can also rule out the possibility that it was the Moon's position that was erroneous, since already by the earliest date that the Sun's distance from Cancer can be considered negligible (say June 20 for a tolerance of 5°), Mercury has advanced past the middle of Cancer.

Since the reading of Mars' zodiacal sign in the papyrus is less clear than one might wish – though no other name of a sign is plausible except, with difficulty, Κᾶρ(κίττω), Cancer – we also checked the other dates (88 BCE June 26 and July 24, CE 31 July 11, and CE 90 July 17) for which the positions of Saturn, Jupiter, the Sun, and the Moon are satisfactory; in each instance both Venus and Mercury show major discrepancies of at least 15°.

The foregoing comparison assumes that καὶ Ἄφρο(οδίτη) in line 4 links Venus' position to the foregoing statement that the Sun is in Cancer, in which case the slightly odd syntax suggests that it has been added as an afterthought. An alternative punctuation would have a new sentence begin with καὶ (as in line 3) so that both Venus and the Moon are placed in Leo. This, however, would make Venus's stated position grossly discrepant with astronomical reality for both the dates under consideration, so the punctuation offered below appears greatly preferable.

We conclude that the horoscope was computed for a date in 29 BCE, most likely within a day of June 4. It is thus, by a margin of almost two decades, the earliest

Greek horoscope yet known from a papyrus, the next earliest being BGU III 957 from Heracleopolis Magna (Neugebauer – van Hoesen, *Greek Horoscopes*, no. –9) which is dated explicitly to year 20 of Augustus (11/10 BCE). It is worth noting that BGU III 957 as restored by Neugebauer and van Hoesen also lists the heavenly bodies according to no recognizable ordering principle. We have one demotic horoscope on an ostrakon (O. dem. Ashmol. in O. Neugebauer – R. A. Parker, *Two Demotic Horoscopes*, *JEA* 54, 1968, 231–235) that is for a still earlier date in 38 BCE. Our papyrus thus moves back the *terminus ante quem* for the diffusion of horoscopic astrology in the Greek-speaking milieu of Egypt.

- 1 Ἄρης ἐν Κρι(ῶ)· Διὸς ἐν Ταύρωι·
- 2 Κρόν(ος) ἐν Διδ(ύμοις)· μεσοῦρ(άνημα) Τοξ(ότη)· ὠρόσκο(πος)
- 3 Ὑδρο(χόω)· καὶ Ἑρμῆς ἐν Διδ(ύμοις)·
- 4 Ἥλιος ἐν Καρκίνω καὶ Ἄφρ(οδίτη)·
- 5 Σελήνη ἐν Λέοντι.

1 Ζεύς 3 Ὑδροχόω

1 Κρι(ῶ): the presumed ι above ρ, followed by a diagonal stroke. Ταύρωι: this is the only iota adscript in the horoscope, if it is not merely an elaborate flourish for the end of line.

2 Κρόν(ος): apparently a small stroke above ν. Διδ(ύμοις): horizontal stroke above the second δ. μεσοῦρ(άνημα): small arc (concave downwards) above ρ. Τοξ(ότη): small horizontal stroke above ξ. ὠρόσκο(πος): small stroke or circle above κ.

3 Ὑδρο(χόω): The presumed ω is quite uncertain; any mark of abbreviation is lost due to a hole in the papyrus. Διδ(ύμοις): horizontal stroke above the second δ.

4 Ἄφρ(οδίτη): small arc (concave upwards) above φ.

Translation

Mars in Aries; Jupiter in Taurus; Saturn in Gemini; midheaven Sagittarius; ascendant Aquarius; and Mercury in Gemini; Sun in Cancer and Venus; Moon in Leo.

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