

Fig. 17.38. The final interpretation option for the Greater Zodiac of Esna (EB) that led us to the exhaustive solution. Planetary figures relating to each planet in the primary horoscope are highlighted, whereas the central drawings of planets as wayfarers with rods are shaded. Drawing made in accordance with the drawn copy from [1100], A. Vol. I., Pl. 79.
male figure of Gemini, respectively, qv in Chron3, Chapter 15:8.4. In the zodiacs from Esna, the "astronomical hieroglyph" of Gemini differs from those we encounter in other Egyptian zodiacs to some extent, qv in Chron3, Chapter 15:8.4.

To the left from Gemini we see a large number of summer solstice symbols, qv in Chron3, Chapter 15:8.4 - in between Gemini and the neighbouring constellation of Cancer, qv in fig. C6. However, there is only one symbol that could stand for a planet in this secondary horoscope, namely, the bicephalous snake between Gemini and Cancer.

As we should remember, the militant-looking figure of either Mars or Saturn over Virgo and Leo may also be part of this horoscope, but only given that it isn't involved in the autumn equinox horoscope.

### 5.6. The exhaustive solution of the EB zodiac: 31 March - 3 April 1394 A.D.

There is just a single exhaustive solution for the Greater Zodiac of Esna, namely, 31 March - 3 April 1394 A.D.

Source data for the Horos program as used in our search are given in Annex 4.

In fig. 17.38 one sees the final interpretation of
the Greater Zodiac that yielded the exhaustive solution; it turned out that the planets of the primary horoscope are represented in the zodiac by the following symbols.

The Sun as a circle in Aries. According to our solution, the Sun had been at the cusp of Aries and Taurus, transcending from the former into the latter.

The Moon as the circle with a crescent inside it as seen on the back of Taurus. The Moon was passing through Aries and Taurus in our solution; however, it immediately became invisible in Aries. Finally, a new moon appeared in Taurus on 3 April 1394, right in the stellar agglomeration known as the Pleiades. It had enjoyed a great deal of attention in mediaeval astronomy due to its excellent visibility on the celestial sphere. According to the calculations performed with the aid of the Turbo-Sky software, the Moon remained invisible throughout the entire period between 31 March and the evening of 3 April, making its first appearance as the narrow crescent of the new moon in Pleiades (and Taurus), qv in fig. 17.39.

It becomes clear why we should see a tiny female figure looking like an upright Egyptian sarcophagus of the anthropomorphic type. This figure is highlighted green in the coloured version of the zodiac. Let us remind the reader that such figures represented


Fig. 17.39. The exhaustive solution of the Greater Zodiac from Esna. Jupiter, Venus, Mars and Mercury are in Pisces on 31 March - 3 April 1394 A.D. On 31 March, the first day of the solution, Jupiter rose in Cairo at the solar submersion rate of 7 degrees ( 8 degrees for Luxor), which made it visible at dawn, considering the luminosity $M=-1.5$. On 3 April Jupiter would rise at the solar submersion rate of 8.5 degrees in Cairo and 10 degrees in Luxor, which made its visibility even better. Venus, Mars and Mercury rose at the minimal solar submersion rate of 14 degrees those days, which means near-total darkness. They had been visible well at dawn and before sunrise on the preceding days. Mars and Mercury proved to be at the same ecliptic longitude. The Moon was invisible starting 31 March due to the New Moon. It had first appeared in the evening of 3 April as a narrow young crescent in the Pleiades (Taurus). The "trails" correspond to the shifting positions of the Sun and the planets over the 4 days between 31 March and 3 April 1394. Calculated in Turbo-Sky. The drawing is approximated.
dead people in Egyptian symbolism; they would also often be drawn standing up, which may have symbolised the ensuing resurrection, qv in Chron3, Chapter 15:9.1. Indeed, the moon "dies" to "resurrect" in two days.

The sarcophagus figure also serves as the double of the Moon in the Greater Zodiac. As this is an Egyptian sarcophagus, it naturally cannot remain in a sitting position, the way it is with the doubles of other planets. The sarcophagus "double" of the Moon corresponds very well to the latter having been "dead", or invisible, on the days covered by the horoscope, reappearing in Taurus as a narrow crescent of the new moon as late as the 3 April 1394 - the last day of our solution.

Let us consider all the other planets now.
Saturn was located at the very cusp of Virgo and Libra in our solution, corresponding to the position of Saturn in the Greater Zodiac precisely. The plan-
etary figure of Saturn has the appearance of a wayfarer with a staff and a crescent on its head, and we find it right in between Virgo and Libra, qv in the coloured version of the Greater Zodiac.

Furthermore, Jupiter, Mercury, Mars and Venus congregated in the middle of Pisces, which is just where we find them in the Greater Zodiac of Esna. The planets were very close to each other, the maximal distance between them equalling 10 degrees. Venus, Mars and Mercury have all been at the distance of 2-3 degrees from each other. The disposition of these four planets for the days covered in our solution can be seen in fig. 17.39.

Jupiter only attained matutinal visibility on 31 March; it rose when the Sun had set by 7 degrees in Cairo and 8 degrees in Luxor. Previously it would rise at insufficient solar submersion rates, rendered invisible by this circumstance. Jupiter ( $\mathrm{M}=-1.5$ ) would approximately equal Sirius in luminosity; this
would guarantee its visibility for the solar submersion rate of 7-8 degrees ([393], page 16). See Chron3, Chapter 16:7.3 for details on visibility conditions. On the last day included in our solution, 3 April 1394, Jupiter would rise when the solar submersion rate equalled 8.5 degrees in Cairo and 10 degrees in Luxor, which made its visibility even better - however, one could only observe the planet at very early dawn.

This might be the reason why we see a man with a circle on his head in the Greater Zodiac of Esna; it is highlighted green in the zodiac's colour version. The circle on the figure's head is large enough, which might refer to the proximity between Jupiter and the Sun - as though the former was carrying the latter on its head.

At the same time, the general headdress pattern of this man that resembles a circle between the horns, is the same as we see on Jupiter from the zodiacs of Dendera - we mentioned this in Chron3, Chapter 15:4.6. This is another indirect confirmation of the fact that we identified Jupiter correctly in the Greater Zodiac. However, we must reiterate that this identification is purely formal and conforms to the complete solution. In the preliminary stage we also considered the possibility of identifying this figure as Mars.

The next after Jupiter (counting from the Sun) is Venus, followed by Mars and Mercury, qv in fig. 17.39. Venus had been behind Mercury and Mars, qv in fig. 17.39. In the previous days Venus had been behind Mercury and Mars, taking over them on 25 March. This may explain the fact that Mars is enclosed between two "sitting doubles" of Venus in the Greater Zodiac entirely - one of them large, just like the ones that other planets have got, and the other small, qv in fig. 17.38. These "doubles" appear to be marking the route of Venus past Mars. The small double indicates the past position of Venus, when it had been on the other side of Mars, whereas the large one corresponds to the correct position of Venus in relation to other planets on the dates included in the primary horoscope, qv in the coloured version of the Greater Zodiac, where all of the planetary "doubles" are highlighted in green.

Mars and Mercury remained at virtually the same longitude between 31 March and 3 April 1394 - quite close to each other on the ecliptic, that is. Their re-
spective order in the zodiac could therefore be indicated in any which way; it happens to be as follows: Jupiter, Venus, Mars and Mercury, qv in fig. 17.38.

Venus, Mars and Mercury rose at the solar submersion rate of 14 degrees at least - in almost complete darkness, in other words. All of them were visible very clearly before sunrise and at dawn on the days included in our solutions, as well as the ones preceding them.

Furthermore, a week before the beginning of the primary horoscope's interval, on 25 March 1394, all of the three planets (Venus, Mars and Mercury) got so close to each other that they could be observed as a single luminous dot in the sky. The distance between Mercury and both Mars and Venus equalled a mere 5 arc minutes. The luminosity of Venus equalled -3.5 on the photometric scale, the respective values for Mercury and Mars are +0.7 and +1.3 . Such great luminosity (especially in case of Venus) and close propinquity between the planets would transform all three into a single star of exceptional brightness as observed by the naked eye.

The event must have been very spectacular; it could be observed in Cairo before sunrise and at dawn on 25 March, 1394. The submersion rate of the Sun when this "triple star" rose had equalled 14 degrees, and so it was still dark. In fig. 17.40 one sees the respective disposition of the Sun, Mercury, Mars and Venus on 25 March 1394 - before sunrise, as observed from Cairo when the submersion rate of the Sun equalled 10 degrees.

It has to be said that the primary horoscope of the Greater Zodiac from Esna was compiled from planetary positions that could be observed immediately after this magnificent event. Solution days begin right after the conjunction of the three planets, when Jupiter appeared in the sky followed by the "birth" of the Moon. This happened a week after the triple conjunction - Jupiter became visible on 31 March, and the Moon on 3 April. This is precisely the solution we came up with for the Greater Zodiac.

Let us conclude by citing calculated planetary positions for 31 March - 3 April 1394 a.d. The dates are given according to the Julian calendar (year/month/ date) and in Julian days as used in astronomical calculations ([393], page 316); see also Chron3, Chapter 16:4.

Planetary positions are given in degrees on ecliptic J2000 (first line) and the "constellation scale" (second line). The third line contains the name of the constellation that the planet in question ended up in; see Chron3, Chapter 16:4 for more details.

The astronomical new moon fell on 31 March 2 April 1394, which means the Moon hadn't been visible in the sky and only appeared in Taurus first, right next to the Pleiades in the evening of 3 April (as calculated in Turbo-Sky).

| THE EXHAUSTIVE SOLUTION FOR |
| :---: |
| THE GREATER ZODIAC FROM ESNA |
| (PRIMARY HOROSCOPE) |

Julian day $(J D)=2230306.00<$ the "death" of the Moon> Year/month $/$ day $=1394 / 3 / 31$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27.2 | 378.6 | 214.8 | 373.6 | 359.7 | 362.8 | 359.8 |
|  |  |  |  |  | (longitude) |  |
| 0.02 | 11.80 | 5.98 | 11.68 | 11.33 | 11.41 | 11.33 |
| Ari/Pisc | Pisces | Vir/Lib | Pisces | Pisces | Pisces | Pisces |

Average deviation from "best points" equals 14 degrees.
Julian day $(J D)=2230307.00<$ the Moon is invisible>
Year/month/day $=1394 / 4 / 1$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28.1 | 31.7 | 214.7 | 373.8 | 360.5 | 364.0 | 360.8 |
|  |  |  |  |  | (longitude) |  |
| 0.06 | 0.21 | 5.98 | 11.68 | 11.35 | 11.44 | 11.36 |
| Ari/Pisc | Aries | Vir/Lib | Pisces | Pisces | Pisces | Pisces |

Average deviation from "best points" equals 13 degrees.
Julian day $(J D)=2230308.00<$ the Moon is invisible>
Year/month/day $=1394 / 4 / 2$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29.1 | 44.6 | 214.7 | 374.0 | 361.2 | 365.2 | 361.8 |
|  |  |  |  |  | (longitude) |  |
| 0.10 | 0.72 | 5.98 | 11.69 | 11.37 | 11.47 | 11.38 |
| Aries | Aries | Vir/Lib | Pisces | Pisces | Pisces | Pisces |

Average deviation from "best points" equals 11.5 degrees.

Julian day $(J D)=2230309.00<$ the Moon is "born" in Taurus> Year/month/day $=1394 / 4 / 3$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30.1 | 57.3 | 214.6 | 374.3 | 362.0 | 366.4 | 362.8 |
|  |  |  |  | (longitude) |  |  |
| 0.14 | 1.15 | 5.98 | 11.69 | 11.39 | 11.50 | 11.41 |
| Aries | Taurus | Vir/Lib | Pisces | Pisces | Pisces | Pisces |

Average deviation from "best points" equals 11 degrees.
The date of the best correspondence with the Greater Zodiac of Esna is 3 April 1394, when the new Moon was born in Taurus, right over the Pleiades. We see in right over the back of the constellation figure of Taurus in the Greater Zodiac. On 3 April the average "best point" deviation equalled a mere 11 degrees - roughly one third of an average constellation's length on the ecliptic. Remember that the average "best point" deviation of circa 15 degrees (half of constellation) already implies a good correspondence between the planetary positions on the celestial sphere and the figures from the zodiac.

### 5.7. The verification table for the complete solution of the EB zodiac

Let us cite the verification results for the exhaustive solution of the Greater Zodiac from Esna that we came up with ( 31 March - 3 April 1394) using secondary horoscopes and planetary visibility indicators. The verification table for the solution can be seen in fig. 17.41; it will demonstrate the degree of correlation between our solution and the Greater Zodiac of Esna, according to auxiliary astronomical information that isn't included in the primary zodiac. Let us remind the reader that under a complete, or exhaustive solution we understand one that has a plus sign in every column of the verification table, which implies perfect correspondence with the Egyptian zodiac in every which way, qv in Chron3, Chapter 16:14.

The first column corresponds to the visibility of Jupiter. Planetary visibility is a factor of paramount importance in this case, since all of the planets are very close to the Sun. Jupiter must be visible, because the corresponding figure's head isn't replaced by a circle, which would indicate the contrary, qv above.

Indeed, Jupiter's visibility was very good in our solution, as we mentioned above. Let us briefly recollect the visibility conditions for Jupiter between 31 March and 3 April 1394 in Cairo and in Luxor.

On 31 March Jupiter rose in Cairo when the Sun had set by 7 degrees ( 8 degrees in Luxor). Its luminosity equalled that of Sirius, namely, -1.5 , which means it could already be visible with the Sun set by $7-8$ degrees (see [393], page 16). This was the day Jupiter appeared in the morning sky for the first time. Before it would rise at lower solar submersion rates.

On 3 April Jupiter rose in Cairo when the solar submersion rate had equalled 8.5 degrees ( 10 degrees in Luxor) - almost complete darkness, that is, and therefore it was visible even better.

We shall therefore draw a plus sign in the first column of the verification table.

The second column indicates that Venus should be visible according to the Greater Zodiac. In our solution it was indeed visible perfectly - before sunrise and at dawn. On 31 March Venus rose in Cairo when the Sun had set by 13 degrees - in complete darkness, that is. The planet's luminosity had equalled -3.5 , and kept getting better. We must therefore put a plus sign in the second column of the verification table as well.

The third column contains data concerning the visibility of Mars and Mercury. These planets were very close to each other in our solution, and therefore their visibility or invisibility should be synchronous. The Greater Zodiac implies that both planets were visible.

Indeed, in our solution both planets were visible very clearly before sunrise and at dawn. On 31 March they rose in Cairo with the Sun set by 14 degrees - in utter darkness, that is. Photometric table luminosity equalled +0.7 for Mercury and +1.3 for Mars. On the following days included in our solution the visibility conditions for Mars and Mercury were even better. We shall therefore draw a plus sign in the third column of the verification table as well.

The fourth column contains the secondary horoscope of autumn equinox.

As above, we shall choose the September year that corresponds to our solution - the one that began in September 1393 A.D. and ended in August 1394 A.D. Autumn equinox day fell on 10 September 1393 A.D., qv in Annex 5. However, in that epoch the solstice and


Fig. 17.40. Precise conjunction of Mercury ( $\mathrm{M}=+0.7$ ), Mars $(\mathrm{M}=+1.3)$ and Venus $(\mathrm{M}=-3.6)$ in the morning of 25 March 1394 before dawn, as observed from Cairo. The distance between Mercury and Mars as well as Mercury and Venus equalled approximately 5 arc minutes, which means that all three planets looked like a single star of incredible luminosity when observed with the naked eye. We see the morning horizon of Cairo at the solar submersion rate of 10 degrees. Calculated in Turbo-Sky. The drawing is approximated.
equinox days could not be estimated with precision; discrepancies of 5 or 6 days were very common, qv above.

Let us cite the planetary positions on the ecliptic for 9 September 1393. The first row of numeric values found under the names of the planets refers to degrees on the J2000 ecliptic, whereas the second row contains the position of a planet on the "constellation scale", qv in Chron3, Chapter 16:10.

Julian day $(J D)=2230104.00$
Year/month/date $=1393 / 9 / 10$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 184.3 | 230.9 | 205.5 | 349.4 | 207.9 | 185.0 | 184.3 |
| 5.24 | 6.73 | 5.76 | 11.07 | 5.81 | 5.25 | 5.24 |
| Virgo | Libra | Virgo | Pisc/Aqua Virgo | Virgo | Virgo |  |

The celestial sphere as observed from Cairo on the date in question can be seen in fig. 17.42. In the drawing we see the local evening horizon of Cairo at the solar submersion rate of 10 degrees, when most of the stars were already visible, as well as the matutinal horizon in Cairo with the solar submersion rate equalling just one degree, right before sunrise, when both Venus and Mercury had still remained below the horizon - the latter rose simultaneously with the Sun, and the former even later.


Fig. 17.41. The verification table for the complete solution of the Greater Zodiac from Esna - 31 March / 3 April 1394 A.D. Abbreviations used: S. S. - solar submersion rate transcribed in arc degrees (see CHRON3, Chapter 16:7, Step 3-B); M - planetary luminosity; a fraction between 0 and 12 in parentheses is the calculated position of a planet on the "constellation scale", qv in CHRON3, Chapter 16:10. Bottom right - the result of comparing the solution with the zodiac as well as the average distance between planets and their "best points", qv in CHRON3, Chapter 16:11 and 16:14.

Mercury and Venus were therefore rendered perfectly invisible, being lost in rays of sunshine. Venus would rise later than the Sun, already in broad daylight, and set before dusk. Mercury was at a distance of 2 degrees from the Sun and hence also invisible.

The following planets were visible next to the Sun on the day of the autumn equinox in their vespertine phase:

Saturn ( $\mathrm{M}=+1.0$ ) was between Virgo and Libra in the primary horoscope, and would set at the solar submersion rate of 14 degrees - in complete darkness, that is. The luminosity of Saturn equalled that of the brightest stars, which made the planet visible perfectly well at dawn and after dusk.

Mars ( $\mathrm{M}=+1.8$ ) was at the distance of a mere 2 degrees from Saturn. Its luminosity had been somewhat lower than Saturn's, but would still equal that of the brightest stars (1st/2nd order of magnitude). Mars was therefore visible perfectly well next to Saturn at dusk and some time after sunset in Cairo. It was located at the cusp of Virgo and Libra, likewise Saturn.

Moon was three days of age and in Libra.
There were no other planets anywhere near. Jupiter had been at the cusp of Pisces and Aquarius, almost opposing the Sun on the ecliptic. Other planets have already been listed, qv in fig. 17.42.

The result is that we find Venus and three other planets in Virgo, right next to the Sun, on the autumn equinox day of the September year that we came up with in our solution. One of the three is the invisible Mercury; the two others (Saturn and Mars) were visible very well, unlike Venus. The Moon was in the neighbouring constellation of Libra. There were no other planets anywhere near, qv in fig. 17.42.

This is in perfect correspondence with the secondary horoscope of autumn equinox found in the Greater Zodiac. Let us briefly recollect it.

On the day of autumn equinox Venus was in Virgo - possibly invisible (see the solar circle over the figure's head). There were three other planets in Virgo, one of them invisible. Mars or Saturn should have been in Virgo or Leo.

The correspondence is perfect; the only seeming discrepancy one can point out is the absence of the Moon from this secondary horoscope of the Greater Zodiac, despite its nearby location in the solution (the neighbouring constellation of Libra).

However, if we're to study the Greater Zodiac of Esna more attentively, we shall notice the fact that lunar symbolism is absent from every single secondary horoscope that we find there. Apparently, this particular zodiac contains no lunar symbolism in any of its secondary horoscopes, which is actually characteristic for Egyptian zodiacs in general. It is only in the Long Zodiac of Dendera, which is extremely detailed and voluminous, that we find the Moon present in secondary horoscopes.

Bearing this in mind, we see absolute concurrence between the astronomical disposition for the autumn equinox day as suggested in our solution and the secondary horoscope of autumn equinox in the Greater Zodiac. We must therefore draw a plus in the fourth column of the verification table as well.

The fifth column represents the secondary horoscope of winter solstice.

Winter solstice of the September year that we have under consideration fell on 10 December 1393, qv in Annex 5.

Planetary positions on the ecliptic for 10 December 1393 shall be cited below. As above, we cite planetary longitudes in degrees on the J2000 ecliptic as well as planetary positions according to the "constellation scale", qv in Chron3, Chapter 16:10.

Julian day $(J D)=2230195.00$
Year/month/date $=1393 / 12 / 10$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 275.7 | 359.1 | 215.5 | 349.7 | 273.3 | 229.9 | 254.7 |
| 8.26 | 11.31 | 6.00 | 11.08 | 8.19 | 6.68 | 7.60 |
| Sagitt | Aquarius | Vir/Lib | Aqua/Pisc Sagitt | Libra | Scorpio |  |

The Sun was in Sagittarius, with the following planets nearby (qv in fig. 17.43).

Mars was in Sagittarius, albeit invisible. It was at the distance of a mere 2 degrees from the Sun, and therefore impossible to see.

Mercury was in the neighbouring constellation of Scorpio. It was visible quite well, equalling the brightest stars in luminosity ( +0.5 ). Solar submersion rate for the moment Mercury rose in Cairo had equalled 20 degrees - absolute darkness, in other words.

Venus was in Libra - even further away from the Sun than Mercury, at the very edge of the area cov-


Fig. 17.42. Dislocation of planets in the solar vicinity for 10 September 1393, the day of the autumn equinox. One sees the morning and evening horizon as observed from Cairo. Saturn and Mars were visible next to each other at dusk. Venus and Mercury were perfectly invisible. Calculated in Turbo-Sky. The drawing is approximated.
ered by the secondary horoscope of winter solstice, $q v$ in fig. 17.43. Its luminosity equalled -4.4 on the photometric scale, which is close enough to the possible maximum. Venus must have looked most spectacular during those days.

Jupiter and Saturn were far away from Sagittarius and very close to their respective positions in the primary horoscope, the former being on the cusp of Aquarius and Pisces, and the latter right in between Virgo and Libra.

Let us now compare the calculated astronomical disposition with what one sees in the winter solstice horoscope of the Greater Zodiac. We may recollect this horoscope to have Mercury in either Sagittarius or Scorpio, and Venus in Libra.

The correspondence is good enough. The only planet found near the Sun that remained without representation is Mars; however, it had been invisible during the winter solstice period. As we know, invisible planets would often be omitted from secondary horoscopes. This is why we draw a plus sign in the fifth column of the verification table as well.

The sixth column corresponds to the secondary horoscope of spring equinox.

Spring equinox fell over 12 March 1394, preceding the dates covered in the primary horoscope by a mere two weeks, qv in Annex 5. No planets but Mer-
cury and the Moon could alter their positions significantly over this period. However, Mercury was looping a loop, and therefore remained in Pisces throughout the entire period between 5 February and 19 April 1394. The positions of all planets on the spring equinox day of 1394 were thus very close to the primary horoscope. As we already know, in such cases the secondary horoscope of vernal equinox was usually left empty, or almost empty.

However, it is possible that the secondary horoscope of vernal equinox is represented by "planetary doubles" in the Greater Zodiac, as we already mentioned above. Yet the secondary horoscope of vernal equinox cannot be of any use in filtering out the extraneous solutions, since it is de facto a duplicate of the primary horoscope, and all of our preliminary solutions satisfy to its conditions already.

For the sake of making the picture complete, let us cite the planetary positions on the ecliptic for 12 March 1394 (the spring equinox day):

Julian day $(J D)=2230287.00$
Year/month/date $=1394 / 3 / 12$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 368.5 | 121.5 | 216.1 | 369.0 | 344.9 | 339.6 | 354.3 |
| 11.55 | 3.12 | 6.03 | 11.56 | 10.90 | 10.59 | 11.19 |
| Pisces | Cancer | Libra | Pisces | Aquar. Aquar. | Pisces |  |

In the sixth column of the verification table we draw another plus sign, since there were no contradictions between the zodiac and the solution in the present case.

The seventh column refers to the secondary horoscope of summer solstice.

Summer solstice fell on 11 June 1394 A.D. for the year under consideration, qv in Annex 5. Let us specify planetary positions on the ecliptic for 11 June 1394 (see above for explanation of indications):

Julian day $(J D)=2230378.00$
Year/month/date $=1394 / 6 / 11$

| Sun | Moon | Saturn | Jupiter | Mars | Venus | Mercury |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 96.4 | 236.6 | 210.9 | 28.4 | 53.6 | 90.9 | 122.0 |
| 2.24 | 7.00 | 5.89 | 0.07 | 1.05 | 2.04 | 3.14 |
| Gemini | Lib/Sco | Virgo | Pisc/Ari | Ari/Tau | Tau/Gem Cancer |  |

Sun was in Gemini on the day that interests us. The only planets one could find nearby were Venus and Mercury - the "minimal secondary horoscope" planets that never drift too far away from the Sun.

Venus was at the cusp of Taurus and Gemini - invisible, since it crossed the local horizon in Cairo at the solar submersion rate of a mere 5 degrees (as calculated in Turbo-Sky). The solar rays would obscure Venus, its high luminosity of -3.4 notwithstanding. The submersion rate was too low; even moving the hypothetical observation point to Luxor wouldn't help the situation in any way at all.

Mercury was in Cancer, on the side of Gemini. Its matutinal visibility was excellent - it would rise in Cairo at the solar submersion rate of 19 degrees, in complete darkness (see [393], page 16). Thus, Mercury was visible.

There were no other planets in either Gemini or any of the neighbouring constellations; one can therefore expect this secondary horoscope to be minimal in the Greater Zodiac. However, we know that minimal horoscopes of this kind are usually integrated into the figure of Gemini. The male figure stands for Mercury, and the female - for Venus, qv in Chron3, Chapter 15:8.4. The correspondence between our solution and the Greater Zodiac shall therefore be excellent if there aren't any other planets in the secondary horoscope of summer solstice except for Venus and Mercury.

This is exactly the case. The secondary horoscope of summer solstice in the Greater Zodiac of Esna is minimal. Furthermore, only one of the planets contained therein was visible - Mercury, which was in Cancer; this is exactly where we find the planet in the secondary horoscope of summer solstice. Let us reiterate the corollary we made after analysing this horoscope.

The secondary horoscope of summer solstice from the Greater Zodiac is minimal; it consists of Mercury and Venus. One of the planets - most likely, Mercury, is drawn additionally as a two-headed snake in between Gemini and Cancer.

We shall therefore draw a plus sign in the seventh column of the verification table as well.

There are no additional scenes that could help us in verification of solutions in the Greater Zodiac of Esna. This is where the verification of our solution


Fig. 17.43. Dislocation of planets in the solar vicinity for 10 December 1393, the day of the winter solstice. One sees the morning horizon in Cairo. The Sun was in Sagittarius. Mercury in Scorpio and Venus in Libra were visible very well before dawn - unlike Mars, which had been too close to the Sun. Calculated in Turbo-Sky. The drawing is approximated.
ends. There are plus signs in all the columns of the verification table, $q v$ in fig. 17.41. The solution is therefore exhaustive.

We found no other exhaustive solution in any interpretation of the primary horoscope in the Greater Zodiac of Esna.

Corollary. The Greater Zodiac of Esna contains the following date: 31 March - 3 April 1394 A.D. (a new moon). The best correlation with the zodiac was attained on 3 April 1394, when the new moon was born in Taurus and right over the Pleiades.

## 6. <br> THE DECIPHERMENT OF THE DATE FROM THE ZODIAC FOUND IN THE LESSER TEMPLE OF ESNA (EM)

In the previous section we provide an account of how we deciphered the date transcribed in the ceiling zodiac of a gigantic ancient Egyptian temple from the town of Esna. We called it the Greater Zodiac of Esna. The date it contained fell over the very end of the XIV century A.D. - namely, 1394. However, it wasn't the only zodiac discovered in Esna. Let us consider the second one now (we call it the Lesser Zodiac), and the date it contains. A comparison of the two datings would be most edifying indeed. In the case of the


Fig. 17.44. Shaded drawing of the Lesser Zodiac of Esna (EM) taken from the Napoleonic album. Taken from [1100], A. Vol. I, Pl. 87.


Fig. 17.45. Temple found on the north of Esna, a town in Egypt, drawn by the Europeans who came here during Napoleon's Egyptian expedition. The zodiac found in the temple shall be referred to as "the Lesser Zodiac of Esna", or simply "the Lesser Zodiac". Taken from [1100], A. Vol. I, Pl. 85.

Dendera zodiacs we witnessed the two dates to be exceptionally close to each other - the difference between the two equalled a mere 17 years. Could we run into a similar situation in case of the Esna zodiacs? The answer is in the positive - this is exactly what happens here. The difference between the dates from the two temples equals 10 years.

As we mentioned above, the Egyptian town of Esna is located on the banks of the Nile, where we find the southern end of the "Bight of the Kings" on the Nile. This town is presumed to have possessed the Greek name of Latopolis once ([1100]). Apart from the large temple where the Greater Zodiac was discovered, there is another temple in Esna that contained a zodiac of the same type. This temple is a lot smaller, and we shall therefore refer to it as to the Lesser Temple of Esna, with the corresponding zodiac known as the Lesser Zodiac. A drawn copy of this zodiac from the Napoleonic Egyptian album can be seen above in fig. 12.20, and a shaded copy from the same source is cited in fig. 17.44.

The Lesser Temple is located in the north of Esna.

Europeans that came here during the Egyptian expedition of Napoleon found the temple in a decrepit state - at least, this is how we find it drawn in the Napoleonic album ([1100]; see fig. 17.45).

This is probably the reason why a part of the Lesser Zodiac is lost - namely, the entire area of Scorpio, Libra and Virgo. However, fortunately enough, the lost fragment doesn't preclude us from deciphering the date contained in the zodiac, since all of the primary horoscope's planets are in the remaining part.

Let us proceed with our analysis of the Lesser Zodiac from Esna and the interpretation of the date ciphered therein by the "ancient" Egyptians.

### 6.1. Drawn copies of the zodiac from the Lesser Temple of Esna

The purposes of dating require more detailed copies of the zodiac than the one found above in fig. 12.20. They can be found in figs. 17.46, 17.47 and 17.48. These drawings make it easy to follow all the details of the Lesser Zodiac's analysis.

We already mentioned the fact that there were no other drawings of the Esna zodiacs at our disposal except the one found in the Napoleonic album ([1100]). We had no photographs of the Lesser Zodiac; however, the drawings from the Napoleonic album are detailed enough to suffice for the interpretation and dating of the Lesser Zodiac from Esna.

As usual, we shall give a step-by-step account of our dating procedure, qv in Chron3, Chapter 16:7.

### 6.2. The coloured version of the zodiac

Step 1, qv in Chron3, Chapter 16:7.1. The initial interpretation of the primary horoscope and the
compilation of the "coloured version" of the Lesser Zodiac. The coloured version can be seen in figs. C7, C8 and C9.

The comprehensive tables of Egyptian symbols as seen in Chron3, Chapter 15:1, make it easy to find all figures of zodiacal constellations that we can find in the Lesser Zodiac of Esna except for the ones that wound up in the destroyed part. All the surviving figures of constellations and planets are drawn in the exact same manner as in the Greater Zodiac of Esna as covered above. In general, they're the same constellation figures we find in the Zodiacs of Dendera.

In the Lesser Zodiac of Esna we see the constellation figures of Leo (with an "auxiliary Virgo"), Gemini, Taurus, Aries, Pisces, Aquarius, Capricorn and Sagittarius. The figure of Sagittarius is next to the destroyed part, it is also damaged rather badly. The missing part should have contained the figures of the missing constellations - Scorpio, Libra and Virgo.

All the constellation figures are in the central row of the Lesser Zodiac.

Before we go any further, let us pay attention to the fact that all of the figures contained in the Lesser Zodiac of Esna are arranged in three rows or strips, qv in figs. C7, C8 and C9.

The lowest row contains the planets of the primary horoscope. They are highlighted yellow in the
coloured version of the zodiac. Here we find all the wayfarer figures with the canonical planetary rods, as seen above in fig. 15.29. The same row contains the scene that involves the Passover full moon, qv in Chron3, Chapter 15:9.1. Apart from that, we find some secondary horoscope symbols here, among them the familiar calf in a boat with the woman firing an arrow over his head. We see no bow in her hands this time, but the actual projectile is in plain sight right over the head of the calf. All the secondary horoscope symbols are highlighted in blue.

There are some other symbols in the lowest row, highlighted in red. These symbols are novel to us, and we haven't encountered them in any other zodiacs as to yet. We call them "constellation parentheses"; see more below.

In the central row we find the zodiac's constellation figures highlighted red in the coloured version of the zodiac; apart from those, we see several secondary horoscope symbols here, highlighted in blue. There is also an additional astronomical scene between Aquarius and Capricorn, highlighted in green.

The two rows occupy most of the Lesser Zodiac's space. What we see in action here is separation into constellations as defined by the figures of the latter found in the central row. The top row is explicitly separated from the space of the first two rows; we


Fig. 17.46. The Lesser Zodiac of Esna (EM). First part of the drawn copy from [1100], A. Vol. I, Pl. 87.


Fig. 17.47. The Lesser Zodiac of Esna (EM). Second part of the drawn copy from [1100], A. Vol. I, Pl. 87.
shall witness it to contain a distinction mark of its own. Therefore, its correspondence to the constellation figures of the central row is very approximate.

The entire top row is dedicated to the symbols of secondary horoscopes. They are highlighted blue in the coloured version of the zodiac. Since all of the figures in this row pertain to secondary horoscopes, the transposition symbols as mentioned in Chron3, Chapter 15:6 aren't used here due since they aren't really needed for any purpose whatsoever. We see four equinox and solstice symbols in this row, if we are to proceed from the tail of the general procession towards its head (left to right, that is). Let us list them here.

The autumn equinox symbol is a bird that resembles a heron that stands upon a crossed-out dais, which symbolizes equinoxes in Egyptian zodiacs, qv in Chron3, Chapter 15:8. The symbol's approximate location is over the figure of Leo and the "auxiliary Virgo" (see Chron3, Chapter 15:1.5) in the central row. It is shifted towards Cancer somewhat. Right here in the central row we find another Egyptian equinox symbol that we already mentioned in Chron3, Chapter 15:8. It has the appearance of a snake whose body is woven into a complex symbol, as seen highlighted blue in the coloured version of the zodiac, right over the back of Leo with the "auxiliary Virgo".

We must point out that the primary symbolism of the autumn equinox point was located in the destroyed part of the top row, above the constellation of Virgo, whereas Leo and the "auxiliary Virgo" only ended up with the "tail-lights" of this secondary horoscope, as was the case with the Greater Zodiac of Esna.

Further we encounter a summer solstice symbol as we move along the top row from the left to the right - it is a cobra sitting on a dais, qv in Chron3, Chapter $15: 8$. Right underneath we see the symbol of Gemini that looks like three figures following one another it is just the same here as in the Greater Zodiac of Esna. Gemini is where we find the summer solstice point in Egyptian zodiacs, qv in Chron3, Chapter 15:8.4.

Further to the right we see the spring equinox symbol - a naked human figure sitting with crossed legs over a crossed-out dais. We find the constellation of Pisces underneath, which is where we find the vernal equinox point.

Finally, we see a winter solstice symbol - a cobra on a dais, just the same as we saw in case of the summer solstice. It is located above Sagittarius in the central row, but slightly shifted towards Capricorn. Everything makes perfect sense - the winter solstice point is in Sagittarius.


Fig. 17.48. The Lesser Zodiac of Esna (EM). Third part of the drawn copy from [1100], A. Vol. I, Pl. 87.

Next we find the destroyed part of the top row. This is where we would probably find the main symbol of the autumn equinox, heading the entire procession of figures in the Lesser Zodiac. All of it corresponds to the September year that began around the time of the autumn equinox.

Round about each of the equinox and solstice symbols in the top row we find the planetary symbols from the corresponding secondary horoscopes. The winter solstice horoscope is the most "saturated" and occupies almost half of the top row. See more on secondary horoscope symbols in the Lesser Zodiac below.

## 6.3. "Constellation parentheses" in the primary horoscope's planetary row in the EM zodiac

Let us study the lower row of the Lesser Zodiac with more attention. It is very important to us, since this is where we find the date of the Lesser Zodiac transcribed as the primary horoscope. At the same time, the symbolism of this row proved complex enough. Unlike the top and middle rows, whose symbolism is more or less standard, we encounter a new and unfamiliar series of symbols that proved to be quite troublesome in our analysis of the Lesser Zodiac.

Let us put the events into a sequence. As we approached the decipherment of the Lesser Zodiac, we instantly noticed the fact that the lower row contained an exact total of five wayfarer groups with planetary rods; there is a different number of wayfarers in each of the groups, but they all follow each other inside every group. The groups themselves are separated from each other by other symbols - either in boats or without planetary rods.

As we have already seen in the Greater Zodiac of Esna, each of these groups must represent some planet from the primary horoscope. Let us now recollect that the number of planets represented by planetary circles equals five (the Sun and the Moon excepted, since they were represented by circles and not wayfarers). The number corresponds to that of the wayfarer groups in the Lesser Zodiac. One of the groups is female, and located under Gemini from the central row, somewhat to the side of Taurus. This is perfectly in order, seeing as how only one of the planets known in ancient astronomy was "female" - Venus. It might seem odd that it should be represented by four figures here, and not two as usual. Two of them are obviously larger than the other pair; we aren't certain about the exact meaning of these symbols so far. It is nonetheless obvious that the planet drawn here is

Venus. The identity of other planets is less apparent, although many of them can still be recognized from all of what we know about planetary symbolism of the primary horoscope in Egyptian zodiacs, qv in Chron3, Chapter 15:4.

However, when we made the attempt of dating the zodiac, arranging the planets on the ecliptic in accordance with the constellation (or constellation group) of the central row located above it, we came up with no exhaustive solutions at all. We have tried every possible identification option for the wayfarer groups from the lower row, having also tried every possible version in case of the Sun and the Moon to no avail, since no exhaustive solution satisfying to the symbolism of the primary horoscopes could be found this time.

We have meditated thereupon for a while, and our attention was caught by two apparent symbols of the Aquarius constellation among the "extra-planetary" figures of the lower row, the first one being the male figure underneath the constellation of Pisces that wears a typically Aquarian headdress, qv in Chron3, Chapter 15:1.11. An identical headdress can be spotted on the actual figure of Aquarius in the central row. The second symbol of Aquarius in the lower row is nine decapitated male figures surrounded by a hem of daggers. We find the symbol underneath Aquarius, shifted towards Capricorn a little bit. This is also a symbol of Aquarius familiar to us from other Egyptian zodiacs, qv in Chron3, Chapter 15:1.11.

The most interesting thing is that the Aquarian symbols are separated from one another, with one of the planetary groups located right in between them. The group is therefore confined within "Aquarian parentheses" of sorts. One can therefore come up with the obvious assumption that the artist wanted to emphasise that the planet in question is located in Aquarius. Otherwise it would be easy to ascribe the planetary group to Pisces instead, since it is located at an equal distance from both Aquarius and Pisces in the central row.

In the present case the "Aquarian parentheses" add nothing of substance to our interpretation of the Lesser Zodiac. We must calculate both versions for the planet in question at any rate.

However, having made this simple observation, we couldn't help assuming that there may be other
"constellation parentheses" of this kind in the zodiac - possibly indicating more radical shifts of the lower row in relation to the top. This might be the reason why no exhaustive solution can be arrived at - erroneous distribution of planets across constellations. If the bottom row is strongly "warped" in relation to the centre, we can make a grave mistake in this place as we define planetary positions according to their disposition in relation to the constellations above, and come up with no correct interpretations of the primary horoscope. Zodiacal solutions for false interpretations will obviously fail to concur with secondary horoscope symbolism. There can therefore be no exhaustive solution in this case.

This is how it turned out. The bottom row of the Lesser Zodiac contains another pair of "constellation parentheses" related to Gemini. The "devious" plan of the Egyptian artist involved using a different Gemini symbol for these parentheses - the standard one instead of the odd three-figure symbol as seen in the Lesser Zodiac, which makes it differ from the majority of Egyptian zodiacs in that respect; they all use two figures integrated into a complex astronomical hieroglyph of the constellation figure with a minimal horoscope of summer solstice, qv in Chron3, Chapter 15:8.4. One of the Gemini figures (the male one) simultaneously stands for Mercury in the minimal secondary horoscope, whereas the female figure represents Venus. The former has a feather on its head (a symbol of Mercury), whereas the latter is crowned by a circle with a snake, qv in fig. 4.67 above.

We see such a pair of figures in the bottom row of the Lesser Zodiac of Esna under the constellations of Leo, Cancer and Gemini in the central row. They are the "Gemini parentheses" of the Lesser Zodiac marked red in the colour version. These "parentheses" include a single planetary group of two figures and another similar figure in a boat (bearing no relation to the primary horoscope, that is, qv in Chron3, Chapter 15:6.

This planet must therefore have been in Gemini, unlike the rest; this affects the interpretation of the primary horoscope greatly, since the planet found inside the "Gemini parentheses" is located right over Cancer in the central row. Without the parentheses it would be a very far-fetched suggestion to ascribe it to Gemini. Furthermore, Venus (the female group) is located right underneath Gemini and at a consider-
able distance from Taurus in the central row; it would be impossible to ascribe it to that constellation otherwise. However, it becomes clear that Venus was either in Taurus or on the cusp of Gemini and Taurus, since it is drawn outside the "Gemini parentheses", although right next to them. The constellation that neighbours with Gemini from the other side is Taurus.

It becomes perfectly clear why there are two larger and two smaller figures in the group of Venus that we initially ascribed all four female figures with planetary rods to, whereas in all other zodiacs it is represented by two wayfarers of an identical height. This appears to be the case with the Lesser Zodiac as well; larger figures relate to the "Gemini parentheses" and not Venus itself. They resemble Venus for the sole reason that they correspond to the Gemini figure of Venus in the "astronomical hieroglyph" of summer solstice, qv in Chron3, Chapter 15:8.4. The hieroglyph is divided in two, each of its halves serving as one of the "Gemini parentheses" from the bottom row.

In the coloured version of the zodiac, the two female figures that relate to "Gemini parentheses" are highlighted in red, whereas the ones that stand for Venus in the primary horoscope are yellow.

### 6.4 Planetary figures of the primary horoscope in the EM zodiac

Let us begin with the Sun and the Moon. We only see two circles in the Lesser Zodiac that could serve as representations of the two luminaries; both are in the central row. One of the circles can be found over the horns of the Taurus figure, and the other over Aries. This was the case in the Greater Zodiac of Esna as well, the difference being that the size of both circles coincides in this case. We shall therefore consider two possibilities at once, as we did in case of the Greater Zodiac.

1) Sun in Taurus, Moon in Aries, or
2) Sun in Aries, Moon in Taurus.

The exhaustive solution demonstrates the former to be true.

The symbols of the remaining five planets are in the bottom row, as we already found out in our compilation of the coloured zodiac. They are drawn as groups of wayfarers carrying planetary rods. Once
again, we're fortunate - none of them ended up in the missing part.

The only planet from the bottom row that we can recognize instantly is Venus. We had to sort through all possibilities for other planets in order to minimise the impact of guesswork in final identification. Nevertheless, in the final exhaustive solution all of the preliminary considerations we made herein turned out to have been perfectly valid (see more details in Chron3, Chapter 15:4, where we discuss planetary symbolism of the primary horoscope's planets in various Egyptian zodiacs - in particular, the Lesser Zodiac of Esna).

Let us list the planetary groups found in the bottom row of the Lesser Zodiac, pointing out the identification made in accordance with the exhaustive solution. We shall proceed from left to right, moving from the surviving end of the zodiac towards its destroyed part. All the planetary groups are highlighted yellow in the coloured version.

The first planet is drawn as two wayfarers with heads of falcons, bearing planetary rods. They are wearing tall hats. According to the final solution, these figures represent Mars in the primary zodiac. The man with a planetary rod, a falcon's head and a head on his shoulder is the "left parenthesis of Gemini" the planet was therefore located in Gemini. The wayfarer in front has a star over his face - a visibility indicator. It is however obvious that the planet in question had been visible - it is too far away from the Sun in the zodiac.

On its right we see the same planet, but already in a boat. This means its place is in a secondary horoscope and not the primary. We shall deal with it later. Further right one finds the "right Gemini parenthesis". Next in our motion to the right along the lower row of the Lesser Zodiac we encounter the second planet, drawn as two women with leonine heads and planetary rods. The one in front has a leonine head. It is Venus, qv in Chron3, Chapter 15:4.8 in re the symbolism of Venus in the primary horoscope. We see it immediately after this "parenthesis", or in Taurus. Therefore, Venus was in Taurus or at the cusp of Taurus and Gemini. There is a star over the face of the woman in front - a visibility indicator. It is of importance to us here, since the Sun can be located in Taurus. And so, Venus was visible.

The third planet is a lone male figure with a human face carrying a planetary rod. The exhaustive solution identifies it as Mercury located underneath Taurus and Aries, which means the planet was in one of the constellations in question. The figure of Mercury has no star anywhere near its face, which means the planet was invisible.

The fourth planet is represented by three male wayfarers; one of them has got the head of a ram, and the other has got the head of an ibis. According to the exhaustive solution, the planet in question is Saturn; see also Chron3, Chapter 15:4.2 and 15:4.3, where we discuss the symbolism of Saturn in the primary horoscopes of Egyptian zodiacs. This planet is enclosed into the "Aquarian parentheses", and must have therefore been located in Aquarius. There is a star in front of the wayfarer in the middle - a visibility indicator. However, at this distance from the Sun visibility indicators become useless, since the planets located here cannot be invisible by definition; the indicators were therefore optional.

Fifth planet - long procession of seven male wayfarers near the right edge of the Lesser Zodiac's surviving part. Among them we find figures with heads of humans, falcons, rams, crocodiles and lions. The procession is followed by a goose. We therefore see attributes of Jupiter in the "entourage" of the planet (leonine head and a characteristic headdress), Mars (falcon's head and the goose) and Mercury (human face or crocodile's head). The exhaustive solution identifies the planet as Jupiter; see Chron3, Chapter 15:4.6 for a discussion of the identification.

We don't find a single figure with a star in front of its face here; however, it is possible that there was one - right where we find the destroyed fragment, in front of the second figure's face. However, at this distance from the Sun (when the visibility of the planet is obvious), indicators would often become omitted. We ran into such situations above.

The entire procession is located under Capricorn and Sagittarius in the central row; the planet must have been in one of the constellations.

Thus, the decipherment of the primary horoscope of the Lesser Zodiac from Esna, for which we came up with a complete solution, is as follows:

Sun in Taurus.
Moon in Aries.

Mars in Gemini (enclosed into "Gemini parentheses"). Visible.

Venus in Taurus (possibly at the very edge of Gemini, at the side of Taurus). Visible.

Saturn in Aquarius (enclosed into "Aquarius parentheses").

Jupiter in either Capricorn or Sagittarius.
The above decipherment of the Lesser Zodiac's primary horoscope corresponds to the exhaustive solution that dates it to 6-8 May 1404, qv below.

### 6.5. Secondary horoscopes and auxiliary scenes in the EM zodiac

### 6.5.1. Autumn equinox horoscope in the EM zodiac

As we already know, the area of this secondary horoscope in Egyptian zodiacs covers the constellation of Virgo as well as its neighbours - Leo and Libra, qv in Chron3, Chapter 15:8. The fragment of the Lesser Zodiac with the constellations of Virgo and Libra is destroyed. Nevertheless, the part with Leo and the "auxiliary" Virgo standing over the figure's tail (see Chron3, Chapter 15:1.5 and Chron3, Chapter 15:1.6 for more details on the symbolism of Leo and Virgo in Egyptian zodiacs). Therefore, a part of the horoscope of autumn equinox managed to survive on the Lesser Zodiac, qv in fig. 17.46, as well as the coloured version of the zodiac in fig. C7.

In the top row near the autumn equinox sign (the crossed-out dais with a heron on top) we see six figures, one of them male, with a circle over its head. All the other figures are female and represent Venus, whereas the male one is most likely to stand for Mercury, since it has a human face, and that's a distinctive characteristic of Mercury in Egyptian zodiacs, qv in Chron3, Chapter 15:4.9-10. To the right of these figures we see a lion and a bug on daises, with a star shining right over the former. This must be a reference to good visibility of some planet in Leo on the day of spring equinox. Therefore, all we see here is a minimal horoscope of Venus and Mercury, and learn of some bright planet in Leo.

In the middle row we see an autumn equinox symbol over the figure of Leo with an "auxiliary Virgo" it looks like a tablet with a snake bent in two close nearby. To the right, between Leo and Cancer, we see a militant male figure (stepping wide) with a sword
in one hand and a quiver of arrow in the other. It must be Mars. However, it can relate to this horoscope as well as the neighbouring horoscope of summer solstice, since we find it at an equal distance from Virgo and Gemini. There are no secondary horoscope symbols anywhere near in the central row.

In the bottom row, right near the edge and underneath Leo with the "auxiliary Virgo" we see a boat with a man standing inside it, supported by two similar female figures from either side. This must stand for Venus meeting some other planet - a "male" one, or, alternatively, the Sun. This scene shall therefore be useless in the verification of solutions, since purely astronomical considerations make it obvious that Venus passed by around this time, and that it was close to the Sun. Furthermore, such "meetings" can figure as auxiliary scenes in Egyptian horoscopes, bearing no relation to secondary horoscopes - like Mars meeting Saturn in the Long Zodiac of Dendera, qv above. Therefore in the painted zodiac the "meeting" scene is highlighted blue and green.

The corollary is as follows:
The only planets we find in the surviving part of the autumn equinox horoscope in the Lesser Zodiac are Mercury and Venus. Mars between Cancer and Leo can also relate to this secondary horoscope - or, alternatively, the secondary horoscope of summer solstice. Some bright planet was present in Leo on the day of autumn equinox. The part of the autumn equinox horoscope located in the vicinity of Virgo and Libra didn't survive; it may have contained some planets.

### 6.5.2. Winter solstice horoscope in the EM zodiac

The area of this secondary horoscope covers Sagittarius and the neighbouring constellations of Capricorn and Scorpio. The constellation of Scorpio in the Lesser Zodiac is destroyed; however, Sagittarius and Capricorn are in excellent condition. Apart from that, the secondary horoscope of spring equinox occupies a great deal of space in the top row of the Lesser Zodiac. The remaining secondary horoscopes found in the same row are a lot shorter, and the figures they contain, smaller, qv in figs. 17.47 and 17.48 as well as the coloured zodiac in figs. C8 and C9. See also fig. 12.19 where we see the Lesser Zodiac in its entirety.

In the top row, around the abovementioned symbol of winter solstice (cobra on a dais) we see three
walking figures with planetary rods. We don't see the rod of the figure on the far right, since it ended up in the destroyed part; however, we see the figure's arm reaching forward in the exact same manner as the arms of other figures that carry staves, or rods. We know nothing of what may have been depicted to the right of the figure; possibly, other figures carrying staves.

Walking figures with rods are accompanied by sitting figures with similar rods as well as fantasy animals - "snakes with legs" as well as vertically-aligned snakes. In general, the symbolism of the procession bears great resemblance to the primary horoscope in the Greater Zodiac of Esna, which we already managed to understand, qv above. However, in this case the horoscope is secondary and not primary. Bear in mind that all of the figures in question are located in the special top row of the Lesser Zodiac specifically allocated for secondary horoscopes and separated from the rest of the zodiac.

Thus, if we are to use the already deciphered Greater Zodiac of Esna, we can try to understand what is drawn here. This is easy enough.

Let us begin with the tiny animal hiding neat the feet of the wayfarer in the far right. In the Greater Zodiac of Esna two similar animals were used as a symbol of Mercury, qv in its coloured version, where we find this figure a little to the right from Aquarius. It was highlighted green, which means that it's part of a planetary figure's entourage in the primary horoscope (Mercury in the present case, qv above). We see no second animal here - this part of the zodiac got destroyed. However, its former presence in this precise spot becomes obvious from a comparison with the Greater Zodiac.

The planet referred to here is therefore Mercury.
Furthermore, all the sitting figures holding staves are female, which is emphasised graphically (the figure on the far left might be an exception, since its arm obscures its breast). Apart from that, we see several vertically aligned snakes on the left of the solstice sign. We already know them to symbolise Venus or Mercury, qv in Chron3, Chapter 15:4.10. However, Mercury is in the far right, and there's a separate vertical snake close to its figure - therefore, what we're seeing here must be Venus (it is most likely to be represented by all three sitting figures simultaneously), as well as the wayfarer with a rod and a leonine head

