

**REFLECTED IN HEAVEN, PART TWO: (A) OVID'S EVIDENCE FOR A MOTIF, SHARED BY ROME AND JERUSALEM, OF MATERIAL FEATURES OF THE METROPOLIS OF THE RESPECTIVE PEOPLE BEING REFLECTED IN A CONSTELLATION IN HEAVEN; (B) THE BELIEF THAT FEATURES OF THE FACE OF THE MOON ARE A MIRRORED REFLECTION OF THE CONTOUR OF EARTH'S CONTINENTS; (C) DIVINATORY LIVERS.**

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**ABSTRACT**

This is Part Two of a study in whose Part One, we considered how *Isaiah* 49:16 (Jerusalem's walls being engraved as though on the palms of the hands of God in the sense that Jerusalem is always remembered by Him) was interpreted (as shown by Wiesenberg) by early medieval exegesis, and arguably also by *Isaiah*, in relation to the W shape of the constellation Cassiopeia (cf. *al-Kaff* 'the hand palm' in Arabic). It is the same shape of the proto-Hebrew initial letter of *Shalem*, Jerusalem's old name. Here in Part Two, we consider a parallel from ancient Rome, this time in relation to another constellation, the Pleiades. The traditional date, April the 21st, of the founding of Rome, corresponds to the rise of the Zodiac sign Taurus, and the rise of the Pleiades (seven as the canonical Seven Hills of Rome, even though these were not the same as Rome's hills at her earliest beginnings). The Servian Wall was probably so designed as to enclose seven hills corresponding to the Pleiades. Maia in particular was the same as the Roman goddess Bona Dea, but their being identical was a well-kept secret. *Maia* was Rome's secret name. Ovid, Vinci and Maiuri have argued, was punished with exile while he was busy writing Book Six of the *Fasti*, because in Book Five (about the month of May) he broke a taboo, and mentioned the Pleiades and especially Maia in connection to the foundation of Rome. This insight enables a better understanding of the episode of Publius Clodius Pulcher's cross-dressing at a ceremony for women alone, which caused the *pontifex maximus*, Julius Caesar, to repudiate Pompeia, his wife. We propose that there was in antiquity a motif by which, a people would consider its metropolis (its orography in the case of Rome, the city walls in Jerusalem's) as being reflected in heaven in a constellation. This was comforting, as the eternal city would endure as long as the firmament. The motif of a city having seven hills was also applied to cities including Constantinople and Jerusalem. We consider how the rabbinic homiletic work *Pirke de-Rabbi Eliezer*, when it describes Jonah sightseeing underwater, refers to Jerusalem standing on seven hills. A Roman bronze liver has on it a map of heaven. Features of the Earth were believed to be reflected in heaven in the lunar mirror hypothesis: the spots of the Moon were believed by some (Plutarch referred to Clearchus), to be reflections of Earth's lands, and, as Philip Stooke has cogently shown, this influenced medieval mapmaking in the Islamic world: the southern tip of Africa was drawn with a bifurcated contour because of a feature of spots on the face of the Moon.

**KEY WORDS:** CONSTELLATIONS, PLEIADES, CASSIOPEIA, ETERNAL CITY, JERUSALEM, ROME, SEVEN HILLS, SIGN OF TAURUS, MAIA, *BONA DEA*, OVID, ARATUS, AFRICA, SPOTS ON THE MOON, PLUTARCH'S *DE FACIE*, LUNAR MIRROR HYPOTHESIS, DIVINATORY LIVERS, ETRUSCAN SOOTHSAYERS, THE JEBUSITE LEADER ARAUNAH.

**REFLEJADO EN EL CIELO, SEGUNDA PARTE: (A) EVIDENCIA DE OVIDIO A PROPÓSITO DE UN MOTIVO, COMPARTIDO POR ROMA Y JERUSALÉN, SOBRE LOS RASGOS MATERIALES DE LA METRÓPOLIS DEL PUEBLO ELEGIDO REFLEJADA EN UNA CONSTELACIÓN CELESTE; (B) LA CREENCIA DE QUE LAS MANCHAS DE LA CARA DE LA LUNA SON UN REFLEJO A MODO DE ESPEJO DEL CONTORNO DE LOS CONTORNOS DE LA TIERRA; (C) HÍGADOS ADIVINATORIOS.**

#### RESUMEN

Esta es la segunda parte de un estudio en cuya primera parte hemos considerado cómo *Isaiah* 49:16 (que los muros de Jerusalén están grabados como si estuvieran en las palmas de las manos de Dios, en el sentido de que siempre es recordada por Él) fue interpretado (como muestra Wiesenberg) por la exégesis medieval, y discutiblemente también por Isaías, en relación con la forma en W de la constelación de Casiopea (cf. *al-Kaff* 'la palma de la mano' in árabe). Es la misma figura de la letra inicial proto-hebrea de *Shalem*, nombre antiguo de Jerusalén. Aquí, en la Parte Segunda, tenemos en cuenta un paralelo de la antigua Roma, en esta ocasión a propósito de otra constelación, las Pléyades. La fecha tradicional, el 21 de abril, de la fundación de Roma, corresponde a la ascensión del signo zodiacal Tauro, y la aparición de las Pléyades (siete como las Siete Colinas canónicas de Roma, aunque estas no fueron las mismas que las colinas de Roma en sus comienzos más antiguos). Los muros de Servio fueron probablemente diseñados para rodear siete colinas que correspondían a las Pléyades. Maya en particular fue la misma que la diosa romana Bona Dea, su ser idéntico fue un secreto bien guardado. *Maia* era el nombre secreto de Roma. Ovidio, como han defendido Vinci y Maiuri, fue castigado con el exilio mientras estaba ocupado en escribir el libro VI de los *Fastos*, porque en el libro V (sobre el mes de mayo) rompió un tabú, y mencionó las Pléyades y especialmente a Maya en conexión con la fundación de Roma. Esta visión permite entender mejor el episodio de travestismo de Publio Clodio Pulcher en una ceremonia solo para mujeres, que llevó al *pontifex maximus*, Julio César, a repudiar a su esposa Pompea. Proponemos que aquí hubo en la antigüedad un motivo por el que un pueblo consideraría que su metrópolis (su orografía en el caso de Roma, los muros de la ciudad en el de Jerusalén) se reflejaba en el cielo en una constelación. Esto era reconfortante, en cuanto que la ciudad eterna duraría tanto como el firmamento. El motivo de una ciudad con siete colinas fue aplicado también a otras ciudades, incluyendo Constantinopla y Jerusalén. Analizamos cómo la obra homilética rabina *Pirque de-Rabbi Eliezer*, cuando describe la estancia de Jonás bajo las aguas, refiere que Jerusalén está sobre siete colinas. Un hígado de bronce romano tiene en él un mapa del cielo. Elementos de la tierra se creía que estaban reflejados en el cielo en la hipótesis del espejo lunar: las manchas de la luna creían algunos (Plutarco lo atribuía a Clearco) que eran reflejos de países de la tierra, y, como Philip Stooke ha mostrado convincentemente, esto influyó la cartografía en el mundo islámico: la punta sur de África se dibujaba con un contorno bifurcado debido a un rasgo de las manchas de la cara de la luna.

**KEY WORDS:** CONSTELACIONES, PLÉYADES, CASIOPEA, CIUDAD ETERNA, JERUSALÉN, ROMA, SIETE COLINAS, SIGNO DE TAURO, MAYA, *BONA DEA*, OVIDIO, ARATO, ÁFRICA, MANCHAS DE LA LUNA, *DE FACIE* DE PLUTARCO, HIPÓTESIS DEL ESPEJO DE LA LUNA, HÍGADOS ADIVINATORIOS, ADIVINOS ETRUSCOS, EL LÍDER DE JERUSALÉN ARAUNAH.

#### 1. *Introduction of Part Two:* Quod est inferius, est sicut quod est superius

The subheading of this section is §2 of the Hermetic *Tabula Smaragdina*, “Quod est inferius, est sicut quod est superius”: see Sec. 4.1 below. There used to be an ancient (and medieval) idea which maintained that what is sacred on earth is a reflection of something found in the vault of Heaven. A particular case of this, which we have

identified, is the class of the metropolis of a people who consider it to be an eternal city, and who at some time in the first millennium B.C.E. have considered it to correspond to a constellation in heaven. The exceeding longevity of the constellation was, in a sense, a guarantee that also the city on Earth would endure as much.

In Part One of the present study, we have seen (among the other things) how Ernest Wiesenberg<sup>1</sup> argued that “Behold, I have graven thee upon the palms of My hands; thy walls are continually before Me” (*Isaiah* 49:16) is better understood (also upon the evidence of some medieval texts) in the sense that the W shape of the constellation *Cassiopeia* “is nearly identical with the shape of the letter *Shin* in the Palaeo-Hebrew script, the initial of Jerusalem’s ancient name”, *Shalem*<sup>2</sup>. Wiesenberg pointed out: “In its literal sense, this resembles the popular notion, often heard in Eastern Europe, that when the palms are half folded the lines inside them combine into the shape of the capital M, which conveys the saddening *M[emento] M[ori]* = ‘Remember, thou must die’”<sup>3</sup>.

In the present Part Two, we are going to see (among the other things) that there was, in ancient Rome, a taboo about mentioning the star and goddess Maia (and the constellation to which she belongs, the Pleiades), in relation to the founding of Rome. In particular, the Pleiades were held to correspond to the Seven Hills of Rome. There is cogent evidence (transpiring from Ovid’s *Fasti*, and for that reason he was punished with exile) from which one can infer that the secret name of Rome was the name of Maia, who was the same as Bona Dea. That identity was a secret.

Besides, in Part Two we are concerned with Plutarch’s dialogue—in his *Moralia*—titled *De facie quae in orbe lunae apparet* (*Concerning the face which appears in the orb of the Moon*), in which he mentioned the lunar mirror hypothesis. As we are going to see in Sec. 7, Philip Stooke has argued that in medieval cartography, one comes across at least one clear instance of the unknown southern part of Africa being drawn with a bifurcated contour, and that this can only be explained with the belief that the contour of the continents was reflected in the spots on the surface of the Moon, and that a particular spot was a reflection of southern Africa. Stooke also argued that this should be considered in the context of an association of Africa with the Moon, of which the earliest instance is Ptolemy’s Mountains of the Moon as the source of the Nile.

The structure of Part One, in the previous issue of this journal, is as follows:

<sup>1</sup> E.J. WIESENBERG, “The Lady on her Throne and her Ursine Attendants”, in: SHELDON R. BRUNSWICK (ed.), *Studies in Judaica, Karaitica and Islamica: Presented to Leon Nemoy on his Eightieth Birthday*, Ramat-Gan, Israel: Bar-Ilan University Press, 1982, 87–113 (in the English part of the volume).

<sup>2</sup> WIESENBERG, 101.

<sup>3</sup> WIESENBERG, 102, fn. 37.

## Abstract

1. Isaiah's Jerusalem and the Cassiopeia Constellation
  - 1.1. Medieval Astronomy-Related Jewish Understanding of *Isaiah* 49:16, and E.J. Wiesenberg's Insights
  - 1.2. Culturally Variable Simile of a Constellation, and Its Variable Delimitation: The Case of Cassiopeia as a Sitting Lady (Graeco-Roman, Europe, Islam), a Hand (Arabic), an Initial Letter (Isaiah), a Fish Tail or Tail of a Porpoise (Micronesia), and in Prehistoric Denmark
  - 1.3. Non-Astronomical Medieval Jewish Glosses to *Isaiah* 49:16
  - 1.4. Shalem (Salem) as Jerusalem, vs. Shechem (the Samaritans and the LXX)
  - 1.5. The Jewish and Christian Motif of the Heavenly Jerusalem
  - 1.6. Rome, the Eternal City in Imperial Propaganda, and the Early Christian Critique of the Concept in *Hebrews* 13:14: The Denial of the  $\eta\epsilon\nu\nu\sigma\alpha\ \pi\acute{o}\lambda\iota\varsigma$  ("city that remains"), Which Likewise the Earthly Jerusalem is Not
2. More on Cassiopeia and the Andromeda Myth
  - 2.1. Andromeda: Even in Greek Comedy
  - 2.2. Further Receptions of Andromeda: Heliodorus' Queen Persinna, the Theory of Maternal Imagination, and the Late Antique Rabbinic Parallel of the Black-Skinned Couple (*Genesis Rabbah* 73:7) or Royal Couple (*Numbers Rabbah* 9:43)
  - 2.3. The Queen of Sheba, Demonology, and the Shaping of her Early Life as a Version of the Bound, then Rescued Andromeda
3. Concluding Remarks of Part One

The unfolding of themes is from *Isaiah* 49:16, then to Cassiopeia, then to Andromeda. In contrast, the present Part Two expounds a parallel of Jerusalem inscribed in constellation Cassiopeia in the firmament, namely, the ancient Roman belief that Rome's Seven Hills (as enclosed within the Servian Wall) corresponded to the seven stars of the Pleiades. One of the Pleiades, Maia, was the same as the goddess Bona Dea, but the identity of the two goddesses was a secret. Only a few priests (perhaps only the *pontifex maximus*) would legitimately know that *Maia* was the secret name of Rome. Divulging this would endanger Rome, because enemies could then do the same to Rome as Roman priests were doing during the siege of a city, namely, they would invoke the tutelary deity of the city under siege. Ovid's exile is explained, as we are going to see, by his alluding to the special role of Maia in his *Fasti*. He escaped the death penalty.

The structure of the present Part Two is as follows:

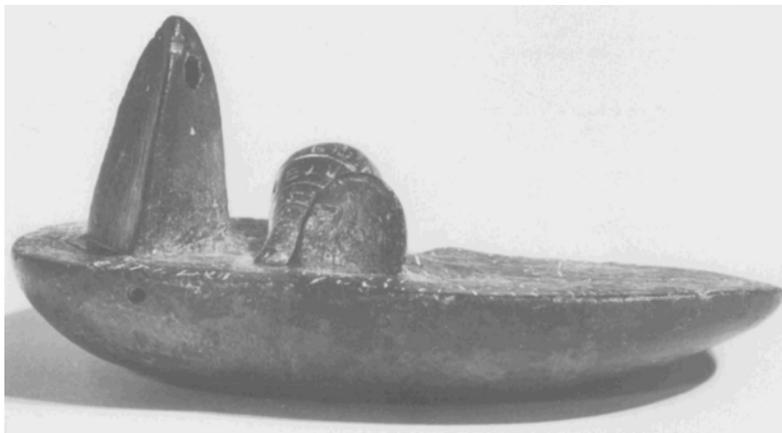
## Abstract

1. Introduction of Part Two: *Quod est inferius, est sicut quod est superius*
2. Divinatory Livers Used by Rome's Etruscan Soothsayers, and Regions of Heaven
3. The Constellations and Celestial Mapping in Eudoxus, Aratus, and Hipparchus

4. Vinci and Maiuri's Interpretation of Rome's Seven Hills Within the Servian Wall in Relation to the Pleiades, and Why Ovid Was Exiled from Rome
  - 4.1. Rome's Seven Hills, in Relation to the Pleiades, the Constellation Most Obvious to the Naked Eye in the Night Sky
  - 4.2. Maia, Unnameable in Connection to the Founding of Rome, and Ovid's Sin
  - 4.3. The Date of the Founding of Rome, April the 21st, the First Day of the Zodiac Sign of Taurus, the Constellation Comprising the Pleiades
5. The Motif of a City's Seven Hills: Not Rome's Alone
  - 5.1. Jonah's Underwater Sightseeing, and Jerusalem Standing on Seven Hills
  - 5.2. The International Spread of the Motif of a City's Seven Hills
6. Plutarch's Correct Explanation, in *De facie quae in orbe lunae apparet*, of the Spots on the Moon: "Thus the reflection occasioned by the pattern of lunar relief is the true explanation of the 'face' which appears in the moon"
7. The Belief That the Spots on the Moon Are Reflections of Earth's Lands and Seas: Philip Stooke's Hypothesis about the Bifurcated Contour of Southern Africa as Occurring in Medieval Mappaemundi
8. Concluding Remarks

## 2. *Divinatory Livers Used by Rome's Etruscan Soothsayers, and Regions of Heaven*

Let us just briefly point out that the correspondence between terrestrial things and things in heaven is also found, in the Roman world, in divinatory livers. Areas of a sheep liver used for soothsaying, which as practised in ancient Rome was of Etruscan derivation, were each associated with a deity and an area of heaven (fig. 1).



**Fig. 1. A side view of the Bronze liver of Piacenza.  
The height of the original is 6 cm.**



**Fig. 2.** The bronze liver of Piacenza, now at the Museo Civico of Piacenza. The size of the original is  $7.6 \times 12.6$  cm. “A religious relic of the third century B.C., this representation of a sheep’s liver has a maplike image on part of its surface. This artefact can be most easily explained as a form of cosmological map”<sup>4</sup>.

There is one exception, albeit extremely difficult to interpret, to this complete lack of map artifacts surviving from Etruscan culture. This is the Bronze Liver of Piacenza, an unusual religious relic known for over a century, which incorporates a maplike image on part of its surface (fig. 2). This bronze representation, 12.6 centimeters long, of a sheep’s liver was found in 1877 between Settima and Gossolengo and is in the Museo Civico, Piacenza [...] There are no grounds for doubting its genuineness; it dates from about the third century B.C. and has been called a map by some scholars in this century. Its top side consists of protuberances modeled schematically on those of a sheep’s liver and of a flat section divided into boxes representing zones. Each of these has its Etruscan inscription with the name of a deity. The convex underside is divided into two sections, inscribed only with the Etruscan words for sun and moon. The liver was clearly associated with the *disciplina Etrusca*, the art whereby their soothsayers divined the will of the gods by inspecting entrails. A parallel has been drawn with a Chaldean terra-cotta liver in the Budge collection of the British Museum.

On the right of the Piacenza liver’s upper side is a pyramid representing the *processus pyramidalis* of the liver. Unlike the left half, the flat part of which has a radial subdivision, under the pyramid are roughly rectangular boxes, that some

<sup>4</sup> Quoted from the caption of Fig. 12.2 on p. 203 in O.A.W. DILKE, “Maps in the Service of the State”.

scholars have associated with the *cardines* and *decumani* of centuriation, considered by Varro to have Etruscan origins.

In other respects the segmented images suggest a cosmological representation of part of the heavens. Martianus Capella, the fifth-century A.D. author of the encyclopedic work *De nuptiis Philologiae et Mercurii*, tells us that the ancients divided the soothsayer's view of the heavens into favorable and unfavorable areas, each represented by particular deities, whose Roman equivalents he gives. Many of those on the Piacenza liver can indeed be equated, such as Tin to Jupiter, Uni to Juno, Fufluns to Liber, Maris to Mars. But attempts to make Martianus's scheme tally with that of the liver have not been entirely satisfactory: it suits Martianus's text best to postulate north at the top, whereas the convex side with "sun" and "moon" suggests west at the top. One must say, therefore, that the liver has a not entirely agreed upon place in the history of religious cartography. [...]<sup>5</sup>.

Concerning Roman and Etruscan divination, it is well known that Latin *haruspex* denotes 'diviner, priest who inspects the organs of sacrificial animals'. The late Mario Alinei<sup>6</sup> derived the Italian name for 'toad', *ròspo*, from *haruspex*. The toad's sacral role is found worldwide in international folklore<sup>7</sup>. It is one of several magical animals<sup>8</sup>.

<sup>5</sup> Quoted from pp. 202–204 in O.A.W. DILKE, "Maps in the Service of the State: Roman Cartography to the End of the Augustan Era", being Ch. 12 (pp. 201–211) in *The History of Cartography*, Vol. 1: *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, edited by J.B. [John Brian] Harley and David Woodward, Chicago, Illinois: University of Chicago Press, 1987. The chapters can now be accessed and downloaded free of charge, from [https://www.press.uchicago.edu/books/HOC/HOC\\_V1/Volume1.html](https://www.press.uchicago.edu/books/HOC/HOC_V1/Volume1.html)

<sup>6</sup> M. ALINEI, "Rospo aruspice, rospo antenato", in a thematic issue about names and lore of toads, *Quaderni di Semantica*, 8 (1987) 265–296. Names for toads are also the subject of HUGO PLOMTEUX, "Les dénominations des batraciens anoures en Italie: le crapaud", *Quaderni di Semantica*, 3 (1982) 203–300; 8 (1987) 3–67.

<sup>7</sup> As for lizards, see M. ALINEI, "Witches as Lizards, Lizards as Mothers: A New Etymology of Gm. *hexe* and *eidechse*", *Quaderni di Semantica*, 22 (2001) 339–346. <http://www.continuitas.org/texts/xxx.pdf>

<sup>8</sup> Cf. M. ALINEI, "L'aspect magico-religieux dans la zoonymie populaire", in *Les zoonymes* (Publications de la Faculté des Lettres, Arts, et Sciences Humaines de Nice, Nouvelle série, n. 38), 1997, 9–22; ID., "Lo scricciolo ed altri animali magici in Italia: da 'parole e cose' a 'strutture di cose e di parole'", in: CHRISTIAN ANGELET, LUDO MELIS, FRANS JOZEF MERTENS ET FRANCO MUSARRA (eds.), *Langue, dialecte, littérature. Etudes romanes à la mémoire de Hugo Plomteux*, Leuven: Leuven University Press, 1983, pp. 21–33. Cf. M. ALINEI, "Streghe come animali, animali come streghe: una nuova etimologia di sp. *bruja*", *Quaderni di Semantica*, 20 (1999) 225–232. And cf. ROSA RONZITTI, "L'etimologia di latino *strix*. Fra indoeuropeistica e romanistica", *Romance Philology*, 63 (2009) 183–193; EAD., "Natura maligna: raffigurazioni degli Strigidi nella letteratura indiana antica", *Quaderni di Semantica*, 21 (2010) 41–62; ALEX SCOBIE, "Strigiform Witches in Roman and Other Cultures", *Fabula*, 19 (1978) 74–101; SAMUEL GRANT OLIPHANT, "The Story of the Strix: Ancient", *Transactions and Proceedings of the American Philological Association*, 44 (1913) 133–149; ID., "The Story of the Strix: Isidorus and the Glossographers", *ibid.*, 45 (1914) 49–63.

Magico-religious semantic motivations are far from infrequent<sup>9</sup>.

Besides, the entry for Latin *haruspex, icis* on p. 280 in Michiel de Vaan's *Latin Etymological Dictionary*<sup>10</sup> states what follows:

There is vacillation between *haruspex* and (*h*)*arispex*, but *u-* is earlier and better attested; also, Hellenistic Greek has borrowed the word as ἀρούσπικα. *Haru/ispex* has been assumed to be a loanword from Etruscan, in which case the vacillation may be due to the source language. On the other hand, we find several IE [Indo-European] forms from a root \*ǵʰrH- 'intestines' to which *haru-* can be connected as a *u*-stem. The dim[inutive] *hariolus* might be based on a preform \**hari-* or on \**haro-* >> \**hario*.

Moreover, in the entry for Latin *aruīna* 'fat, lard' on p. 56 in de Vaan's *Latin Etymological Dictionary*, one comes across this statement: "In view of the uncertain etymology of *haru-spex*, and the vacillating state of initial *h* in Latin, *haru-spex* may have hypercorrect *h*, or *aruīna* may have already lost earlier \**h*; both could then go back to \**aru*". On p. 285 in that same dictionary, the entry for the Latin feminine noun *hīra* 'intestine' (whence *hil-lae* f.pl. 'small intestine, sausage'), de Vaan claimed: "The only way WH can connect this formally to *haru-* is by assuming \**hēra* with a Sabellic or rustic development to *hīra*. This is ad hoc. No etymology". This is a critique of the etymology on p. 649 in Vol. 1 (of 1930) in Alois Walde and Johann Baptist Hoffmann's *Lateinisches etymologisches Wörterbuch*<sup>11</sup>.

<sup>9</sup> See e.g. M. ALINEI, "Magico-religious Motivations in European Dialects: A Contribution to Archaeolinguistics", *Dialectologia et Geolinguistica*, 5 (1997) 3–30. [http://www.continuitas.org/texts/alinei\\_magico-religious.pdf](http://www.continuitas.org/texts/alinei_magico-religious.pdf)

<sup>10</sup> M. DE VAAN, *Etymological Dictionary of Latin and the Other Italic Languages* (Leiden Indo-European Etymological Dictionary Series, 7), Leiden: Brill, 2008, a book discussed in E. NISSAN, "Considerations about Semitic Etyma in de Vaan's Latin Etymological Dictionary: Terms for Plants, Domestic Animals, Tools or Vessels", *Philology: An International Journal on the Evolution of Languages, Cultures and Texts* [Bern: Peter Lang], 4 (2018–2019) 35–156.

<sup>11</sup> 2 vols. Heidelberg: Winter. Vol. 2 appeared in 1954. Also consider de Vaan's entry, on p. 286, for the Latin feminine noun *hirūdō, inis* for 'leech': "WH and EM assume that *hirūdō* has the same suffix as *testūdō* 'tortoise', but whereas the latter can be explained from the stem *testu-* 'pot', no stem \**hiru-* is known. A *u*-stem *haru-* 'intestines' is (maybe) attested in *haruspex*, whereas *hīra* 'intestines' shows *hīr*, and semantically these would fit: the 'intestines' have the same worm-like shape as leeches. Bu [recte: But] these two forms cannot be united with \**hiru-* under one reconstruction. Thus, they may be cognate, but then they are almost certainly non-IE loanwords". The references were to p. 652 in Vol. 1 in WALDE AND HOFFMANN'S *Lateinisches etymologisches Wörterbuch*, and to p. 296 in ALFRED ERNOUT AND ANTOINE MEILLET, *Dictionnaire étymologique de la langue latine*, 4th edition (1959), 3rd printing (1979), by JACQUES ANDRÉ (Paris: Klincksieck, 1979).

The following is quoted from Sec. 10.6, “Fallacies concerning *iĕcur* ‘liver’ and καρῶτόν, *carota*, ‘carrot’” in a long study by Nissan<sup>12</sup> about whether some nouns in Classical Latin can be plausibly claimed to have a Semitic etymology.

Elsewhere (Nissan 2008, 2014)<sup>13</sup> I have illustrated a kind of etymological fallacy, with two made-up cases of etymothesis. Semitic lexical derivatives for ‘liver’ are from the root *kbd*, whose central sememe is ‘heavy’, i.e., the protosememe of Hebrew *yqr* (for ‘dear’, ‘costly’)<sup>14</sup>, whose Semitic root has no known derivative for ‘liver’. One does find *iĕcur* ‘liver’ in Latin, unlikely to have come from Semitic: it is well established among Indo-European cognates, and their peculiar genitive forms are not amenable to *yqr*.

An example similar to fallaciously relating *iĕcur* to *yqr* by analogy to the polysemy of the Hebrew root that yields the noun *kābēd* [ka’veḏ] for ‘liver’, is from names for ‘carrot’. For Semitic roots *krt* and *gʒr* the central sememe is ‘to cut’. Semitic names for ‘carrot’ outwardly have a root *gʒr* (a semantic shift to ‘wedged taproot’ from ‘cut’ is tempting) – actually in a naïve multilingual dictionary, typewritten and with corrections by hand, by the climatologist Dov Ashbel (1896–1989), namely in Ashbel (1959/60, p. 133)<sup>15</sup>, he derived the European lexical type carrot from the Hebrew infinitive *kārōt* while claiming in Hebrew: “The sense of the [Hebrew] words [sic]<sup>16</sup> *gʒr* and *krt* [i.e., the verbs written without the vowels] is the same. (The leaves of this plant are *gʒurim*, cut, into small pieces.)” – but it has been cogently shown they are a loan from

<sup>12</sup> E. NISSAN, “Considerations about Semitic Etyma in de Vaan’s Latin Etymological Dictionary: Terms for Plants, Domestic Animals, Tools or Vessels” (supra, note 10).

<sup>13</sup> E. NISSAN, “Etymothesis and Fallacy: On Carrots and the Liver”, *Journal of Northwest Semitic Languages*, 34(1) (2008) 57–73; ID., “Etymothesis, Fallacy, and Ontologies: An Illustration from Phytonymy”, in: N. DERSHOWITZ and E. NISSAN (eds.), *Language, Culture, Computation: Essays Dedicated to Yaacov Choueka*, Vol. 3: *Computational Linguistics and Linguistics* (LNCS, vol. 8003), Heidelberg & Berlin: Springer-Verlag, 2014, 207–364.

<sup>14</sup> A conjugation conveying the reflexive or inchoative aspect yielded in Hebrew the inchoative verb /nityaqqr/, which, whereas it would in Israeli Hebrew be understood as ‘to become more costly,’ in Biblical Hebrew has the sense ‘to become heavier.’ The context of occurrence is in *Exodus* 17:12, in the episode in which Moses, during the battle against Amalek, has his arms lifted and kept in that position by Aaron and Hur. This is because Moses felt his hands or arms to be too heavy to keep them raised without help. Cf. in *Exodus* 4:10, when Moses resists his call to prophecy and leadership, and objects: “because heavy of mouth (*keḇad pe*) and heavy of tongue (*ukeḇad lāšōn*) I [am]”.

<sup>15</sup> D. ASHBEL, *Semitic (Hebrew) – European Dictionary, Including Latin, Germanic, Scandinavian & Slavic Language Families, Part I* [in Hebrew]. Jerusalem: published privately (n.d., but 5720 = 1959/1960). [Only the first volume appeared. Unreliable concerning etymology. Consulted by Nissan in the 1980s or 1990s at the Aranne Library of Ben-Gurion University of the Negev in Beer-Sheva, Israel.]

<sup>16</sup> *Recte*: lexical roots.

outside Semitic, namely, Middle Persian, the historical stratum relevant for the appearance of the terms in Semitic. Neither the Persian, nor the Greek and European names for ‘carrot’ came from Semitic *krt*. Within Semitic, the word appeared in Arabic *jázar* ‘carrot’ (in Syriac, *gezārā* took on the sense ‘turnip’), whereas in Hebrew, the lexeme of the noun *gézer* in the sense ‘carrot’ only appeared during the Middle Ages. Already in Tannaitic Hebrew<sup>17</sup>, one comes across the unrelated lexeme of the noun *gézer* in the sense ‘block’, ‘piece’.

Jewish Middle Aramaic <krʔ> is understood in the sense ‘leek’, and is related to Tannaitic Hebrew plant names whose root is *krš*. Tannaitic Hebrew <krty> (*kartī*) was defined s.v. by Jastrow (1903)<sup>18</sup> as “porraceous (of color), leek-green stuff”. Cf. Jastrow (1903), s.v. <krtywn>, which, according to Jastrow’s remark, is formed like Greek *πράσινον* for ‘green,’ ‘leek-colored.’

In the Baghdadi Judaeo-Arabic vernacular, the masculine, *singularia tantum* noun *kərráθ* denotes what in English is known as ‘chives’ (*Allium scorodoprasum*, *Allium schoenoprasum*), a porraceous, onion-flavoured plant (which is why in Italian it is called *erba cipollina*, i.e., literally, ‘onion-like grass,’ as well as *aglio romano* and *aglio cipollino*, i.e., literally, ‘Roman garlic’ and ‘onion-like garlic’).

It is known that Latin *carota* is only documented as early as the third century C.E. In fact, de Vaan omitted *carota* from his etymological dictionary of Latin. Other European languages tend to have similar names (see Nissan 2014)<sup>19</sup>, and usually the path of transmission hypothesised is from Greek *καρωτόν* to Latin *carota*, and from Romance languages such as French to, e.g., English carrot. The root of carrots has a tapering shape, wedged in the ground. The Italian technical name for the main axis of the root of such vegetables, i.e., the ‘taproot,’ is *fitto-ne*, related to *confitto* for ‘wedged,’ ‘driven in.’ It is the taproot that is the edible

<sup>17</sup> Tannaitic of Tannaic Hebrew is mainly documented from Palestine under the Antonine or Severan dynasties of the Roman Empire. The main corpus of Tannaitic Hebrew is the *Mishnah*.

<sup>18</sup> MARCUS JASTROW, *Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature* (2 vols., London: Luzac & Co.; New York: G.P. Putnam’s Sons; Leipzig: Trübner & Co., 1886–1903). Often reprinted by various publishers; New York: Choreb (2 vols. in 1, 1926, later reprinted in Jerusalem by Chorev); London: E. Shapiro [i.e., Shapiro, Vallentine] (1926); New York: Title Publ. (1943); New York: Pardes Publ. (1950, 2 vols.); and with a new title, *Hebrew–Aramaic–English Dictionary...* (2 vols., 1969). Also (with the standard title), New York: Judaica Press, 1971 (2 vols. in 1); New York: Jastrow Publishers, 1903, repr. 1967 (2 vols. in 1); Brooklyn: Shalom (2 vols., 1967); Peabody, MA: Hendrickson Publ., 2005 (in 1 vol. of 1736 pp.). The Jastrow dictionary can be accessed and downloaded for free in 2 vols. online; Vol. 1: <http://www.etana.org/sites/default/files/coretexts/14906.pdf>  
Vol. 2: <http://www.etana.org/sites/default/files/coretexts/14499.pdf>

<sup>19</sup> “Etymothesis, Fallacy, and Ontologies: An Illustration from Phytonymy” (supra, note 13).

part of carrots. The temptation would be to posit that there is a general pattern as follows (figs. 3-5), in which two Semitic roots, R1 and R2, are (near) synonyms as per their central sememe S1, and such that a different sememe, S2, is instantiated for a lexical derivative of R2 (but not of R1) somewhere within Semitic, whereas a term that looks as though it is amenable to R1 is found as conveying the word-sense S2 in some language outside Semitic, yet geographically a neighbour. Things do not fit in nicely, and we have to reject those etymologies.

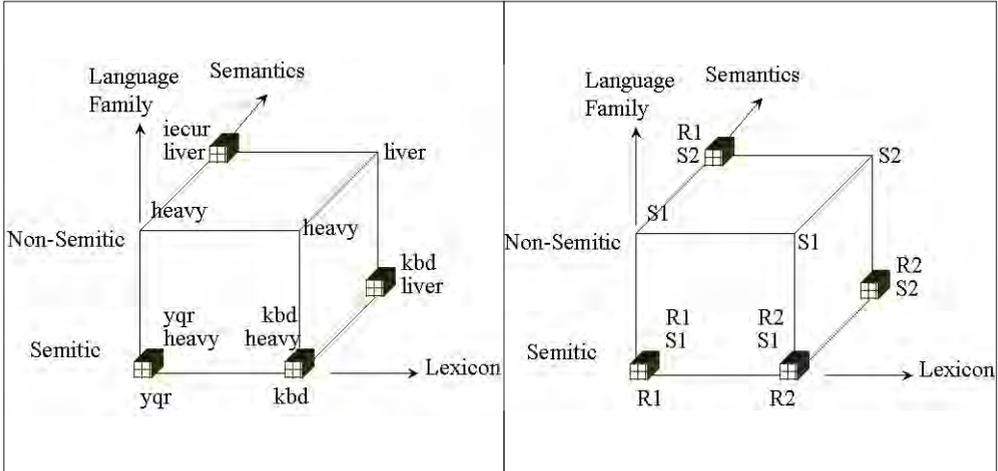


Fig. 3. Fallacy when reasoning about *iecur*. Fig. 4. An analogical reasoning fallacy.

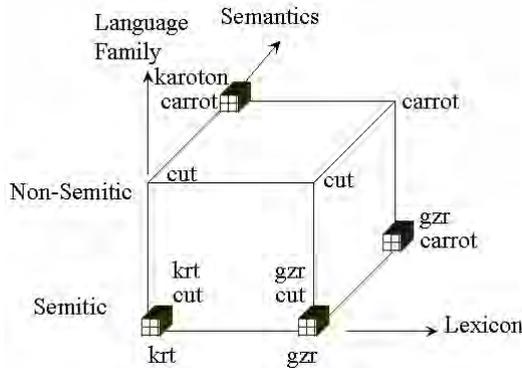


Fig. 5. Fallacy when reasoning on names for carrot.

### 3. *The Constellations and Celestial Mapping in Eudoxus, Aratus, and Hipparchus*

Let us say something about Greek celestial globes. In Ch. 8 in Vol. 1 of Brian Harley and David Woodward's *The History of Cartography*, entitled "The Foundations of Theoretical Cartography in Archaic and Classical Greece"<sup>20</sup>, one can read on pp. 141–142:

Eudoxus wrote two works, *Phaenomena* and *The Mirror*; to accompany his celestial globe and to help in its interpretation, but both are lost. Fortunately a verse rendering of the *Phaenomena* has survived. It was written by the poet Aratus of Soli (ca. 315–240/239 B.C.) at the request of the Macedonian king Antigonus Gonatas (ca. 320–239 B.C.), a keen patron at his court of scholars, poets, and historians<sup>21</sup>. Aratus undertook this during his stay at Pella, adding to the text of Eudoxus a short prelude in honor of Zeus that has a strong flavour of Stoicism. That the poem accurately reflects the original text is decisively proved in the *Commentary* by Hipparchus.

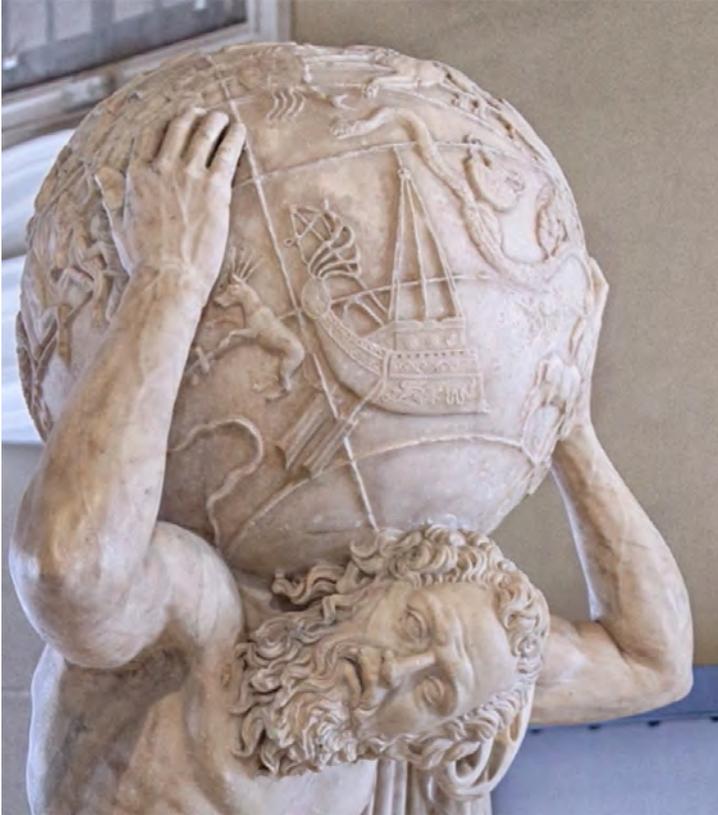
From Aratus's description of the constellation Draco (the Dragon), it appears that the observer is situated at about 37°N. The southernmost star, γ Draconis, the head of the Dragon, is seen to touch the horizon as the constellation appears to revolve around the heavens. Since the declination of this star at that time was +53°, the angular distance of this star from the pole –37°– is equal to the latitude of the observer, in this case 37°N, the latitude of Athens according to Hipparchus [...]

In his versification of Eudoxus's *Phaenomena*, Aratus not only describes the geometry of the heavens with respect to the visible constellations but also compares the celestial circles to belts that could be linked together on a physical mode. Aratus presents the human figures and animals of the constellations in action and in motion like living creatures, and their positions on the globe –and indeed their detailed outlines– are not pure fantasy: they provide a means of identifying the stars and personifying the sky. A close knowledge of the constellations lies behind the poetic language of Aratus. The detailed description of the Dragon, for example, suggests that the stars had been precisely observed in the sky; the constellations are set in relation to one another, and their alignments are clearly explained. We must conclude that the celestial globe of Eudoxus, accompanied by the treatise that described it, was an authentic instrument. It probably helped to conventionalize the figures of the constellations, which have been only slightly modified since Eudoxus's time, and it also gave the Greeks a taste for a mechanical interpretation of the Universe.

<sup>20</sup> "The Foundations of Theoretical Cartography in Archaic and Classical Greece", prepared by the editors from materials supplied by Germaine Aujac, and being Ch. 8 (on pp. 130–147) in *The History of Cartography*, Vol. 1: *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, edited by J.B. HARLEY and DAVID WOODWARD. Chicago, University of Chicago Press, 1987.

<sup>21</sup> See Aratus, *Phaenomena*, in *Callimachus: Hymns and Epigrams; Lycophron; Aratus*, trans. A.W. MAIR and G.R. MAIR (Loeb Classical Library) Cambridge, Massachusetts: Harvard University Press, 1955, and London: William Heinemann, 1955. Also see Aratus, *Phaenomena*, edited by JEAN MARTIN (Biblioteca di Studi Superiori: Filologia Greca, 25), Florence: La Nuova Italia, 1956.

We can visualise the globe of Eudoxus indirectly, from the globe on the shoulders of the Atlas in the statue known as the Farnese Atlas in Naples (figs. 6-8). The text quoted above continues as follows, on p. 142:



**Fig. 6. The celestial globe on the shoulders of the Farnese Atlas, viewed from the front.**

Although Eudoxus's globe no longer exists, our understanding of its contribution to the development of celestial cartography, as transmitted to later cultures by the poem of Aratus, is enhanced through what is almost certainly a direct descendant. This is the celestial globe resting on the shoulders of a sculptured figure preserved in Naples, known as the Farnese Atlas (...)]. Although the actual statue dates from the late second century A.D., the style of execution of both the statue and the constellations shows that it is a copy of a Hellenistic original. Forty-three constellations are shown in the form of bas-relief figures (humans, animals, and objects) derived from the Aratus poem; their iconography has not substantially changed since. No individual stars are indicated. The southern sky — invisible from the Mediterranean world — is hidden by the supporting Atlas. At the same time, a cavity in the globe has oblit-

erated the most northerly constellations. The globe was designed to be viewed from the exterior, so that the figures all face in toward the center. As in the Aratus poem, there is also a series of circles: the equator, the two arctic (ever-visible and never-visible) circles, and the two colures. Three oblique parallel circles represent the ecliptic and the zodiac, equally divided into twelve dodecatemories or signs. [...].



**Fig. 7.** The celestial globe on the shoulders of the Farnese Atlas, viewed from behind. The statue is now at the Museo Archeologico Nazionale in Naples.



**Fig. 8.** Detail of the globe of the Farnese Atlas: “Cepheus, Cassiopeia, the wings and cutoff of Pegasus, Andromeda, the northern fish of Pisces, Perseus and the front half of Aries”<sup>22</sup>.

Of the *oeuvre* of the astronomer Hipparchus, the only work that survives is in celestial astronomy. This is his *Commentary on Eudoxus' and Aratus' Phaenomena*<sup>23</sup>. Hipparchus' *floruit* was in Rhodes, from 161 to 126 B.C.E., but he was a native of Nicaea in Bithynia. In Ch. 10 in Vol. 1 of Harley and Woodward's *The History of Cartography*, entitled “Greek Cartography in the Early Roman World”<sup>24</sup>, one can read on pp. 164–165:

<sup>22</sup> Fig. 1c on p. 291 in KIRSTEN LIPPINCOTT, “A Chapter in the *Nachleben* of the Farnese Atlas: Martin Folkes's Globe”, *Journal of the Warburg and Courtauld Institutes*, 74 (2011) 281–299, <https://www.jstor.org/stable/41418738>

<sup>23</sup> Hipparchus, *In Arati et Eudoxi Phaenomena Commentariorum libri tres*, edited by C. Manitius, Leipzig: Teubner, 1894. Besides, see *The Geographical Fragments of Hipparchus*, edited by D.R. Dicks, London: Athlone Press, 1960.

<sup>24</sup> “Greek Cartography in the Early Roman World”, prepared by the editors from materials supplied by Germaine Aujac, and being Ch. 10 (on pp. 161–176) in *The History of Cartography*, Vol. 1:

[...] Hipparchus aimed to correct errors committed by Eudoxus, repeated by Aratus, and thereafter commonly adopted by educated people. His revision was designed to prevent students of astronomy from being led astray by the magic of poetry. So Hipparchus went through the whole poem systematically correcting mistakes and thus revising the globe it represented.

First of all, he criticized Eudoxus for having located the celestial pole at the wrong place, marked by a star, for it was well known that there was no star at the celestial pole, as Pytheas had correctly noted: the pole was a point in the sky, close to three stars with which it completed a rectangle. A second criticism related to Eudoxus's failure to have observed the general principle regularly used in drawing constellations: "All constellations should be drawn from the observer's point of view, as if they were facing us, unless they are in profile". This rule was a basic one, since in Greece stars were distinguished only by the place they occupied on the figure representing the constellation. For instance, the star we call  $\alpha$  Orionis or Betelgeuse was indicated as "the star on the right shoulder of Orion", and our  $\beta$  Orionis or Rigel was called "the star on the left foot of Orion". If Orion was drawn facing the wrong way, the image of the constellation would also be reversed. Thus when Eudoxus, and Aratus after him, declared that the throat and right temple of the Dragon were in line with the Bear's tail, Hipparchus corrected them, saying that the left (not the right) temple of the Dragon was in line with the stars in question. He rejected indignantly the explanation of one of Aratus's commentators who had supposed the head of the Dragon to be turned toward the outside, instead of toward the inside, of the universe. So Hipparchus was emphatic: the figures representing the constellations, when drawn on a solid globe, had to be represented in rear view, looking inward; when drawn on a flat map, they had to be represented in front view, looking at the map reader.

In addition to enunciating these principles, Hipparchus determined a precise location on the globe for most of the stars. [...] The latitudinal position of a star was indicated, in Hipparchus's *Commentary*, by its distance from the pole. For the longitude, its position was noted in relation to the signs of the zodiac, that is, by the degree of the zodiacal sign that is on the same meridian circle as the star, or what is sometimes defined as the polar longitude.

At the end of his *Commentary*, Hipparchus enumerated the main stars situated on twenty-four semicircles constructed from these principles, going from one pole to the other, each separated from the next by a distance of one equinoctial hour. [...] The celestial globe had become a scientific tool that could be used to calculate the time at night or to find how long an eclipse of the moon lasted.

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*Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, edited by J.B. [JOHN BRIAN] HARLEY and DAVID WOODWARD, Chicago, Illinois: University of Chicago Press, 1987.

Following these procedures, it is known that Hipparchus produced a catalog listing at least 850 stars. This catalog was certainly illustrated by stellar globes of various kinds, both artistically drawn and scientifically accurate. [...]

William Sale set “to explain why the *Phaenomena* of Aratus, which seems in most of its parts tedious, was so enormously popular from the third century B.C. until at least the fourth of our era”. “Our text probably goes back to the edition of Theon of Alexandria”. “Theon’s work was popularized early in our era with the creation of the  $\Phi$ -edition, as Jean Martin calls it: whoever put this together added Eratosthenes’<sup>25</sup> handbook as a running commentary, and accompanied the earlier parts of the poem with many handsome illustrations to please the reader to whom the text itself may have been somewhat obscure. From the  $\Phi$ -edition were taken the scholia to Germanicus’ poem, the catasterisms of Pseudo-Eratosthenes, and various other relics of the original handbook; from it was made the barbarous Aratus Latinus of the seventh century”<sup>26</sup>. An important reason for the popularity of Aratus in later generations was that later ages (which “stripped away the Stoic prologue, and detached the weather signs”) “saw that the remaining portion, both the star-map and the *συνανατολαί*, could be useful for astrology (for to calculate the zodiac by the *συνανατολαί* you must be able to recognize all the constellations). And this is another reason why Aratus was popular”<sup>27</sup>.

<sup>25</sup> NISSAN has dealt with Eratosthenes in a book review of *Eratosthenes’ Geography: Fragments collected and translated, with commentary and additional material*, by DUANE W. ROLLER (Princeton, New Jersey: Princeton University Press, 2010), *Imago Mundi: The International Journal for the History of Cartography*, 63 (2011) 230–231. This was unrelated to Aratus, though.

<sup>26</sup> On p. 160 in WILLIAM SALE, “The Popularity of Aratus”, *The Classical Journal*, 61 (1966) 160–164. The poem by Aratus comprises 1154 lines. “Latin translations of Aratus’s work by Cicero, Germanicus and Avienus, and of various commentaries, were transmitted to the Latin west and collected in beautifully illustrated manuscripts. Among the latter is the Leiden *Aratea* (Leiden, Universiteitsbibliotheek MS Voss. lat. 4° 79), one of the four Carolingian luxury codices produced at the court of Louis the Pious (814–40), exhibiting the antiquarian interest at the Aachen court. The Leiden codex stands out for its contents and the size and artistic quality of its constellation images”, this being a picture book in which the text appears to be secondary to the images, as stated on p. 1 in ELLY DEKKER, “The Provenance of the Stars in the Leiden *Aratea* Picture Book”, *Journal of the Warburg and Courtauld Institutes*, 73, 2010, pp. 1–37, <https://www.jstor.org/stable/41418712> An appendix in that article describes on p. 35 how Cassiopeia appears on folio 28v in that manuscript: “CASSIOPEIA has 1 star on the head, 1 on each shoulder, 1 on the middle of her chest, 1 on her right breast, 2 on her stomach (the top one missing most of the gold), 2 on her left lower arm, 1 on the left hand, 1 on her right lower arm, 1 on the right elbow, 1 on the right hand, 1 on her right thigh, 2 on her left thigh, 1 on the left knee and 1 star on each corner of the back of the chair. There are 19 stars in all”.

<sup>27</sup> SALE, “The Popularity of Aratus”, 163.

Aratus explained the mythology of how constellations came to be, “but Aratus himself says in lines 375–85 that the constellations are conventional, arbitrary, man-made groupings of stars”<sup>28</sup>.

[Aratus’] poem is strewn with purple patches, some of which describe real experiences on land or sea, others of which are mythological and incredible. Much of the language itself is curious, for it speaks of constellations as if they were what convention has made them to be. He speaks of the Scorpion as a “great beast” which Ophiouchus “tramples”. “Fearful is the Bear”, he says, “and fearful stars are nigh”. “You would say (of Cassiopeia) that she was distressed over her daughter”. And her daughter [Andromeda] is a fearful ἄγαλμα<sup>29</sup>; even here her arms are outstretched; even in heaven bonds lie on her. The misty south leads against her Cetus, the “great terror”. But Cepheus “warns him away” with his mighty hand on high. And Eridanus is a river “swollen with tears”. [...] When he [Aratus] calls the Bear fearful and Cassiopeia hapless and Cetus a great terror, he is filling the sky not just with life, but with gigantic men, and violent and frightening animals. There is a poetic vision here intermingled with the scientific vision, a poetic vision recalling a time more naive, when men might actually believe that the sky contained such life as this. These less sophisticated men might also conceive that the animals in the sky got there from the earth, that the step from earth to heaven was a short one. Such a primitive era as is presupposed by Aratus’ language may never have existed, in fact probably did not. It was no more real than Vergil’s Arcadia. But it was no less powerful on that account, no less capable of calling up in the hearts of men who live in sophisticated times a longing for an ideal age when such beliefs were possible – a longing for a time, as the English Romantics might have said, when human consciousness did not have to reach so far in order to encounter what it was conscious of<sup>30</sup>.

<sup>28</sup> SALE, “The Popularity of Aratus”, 162.

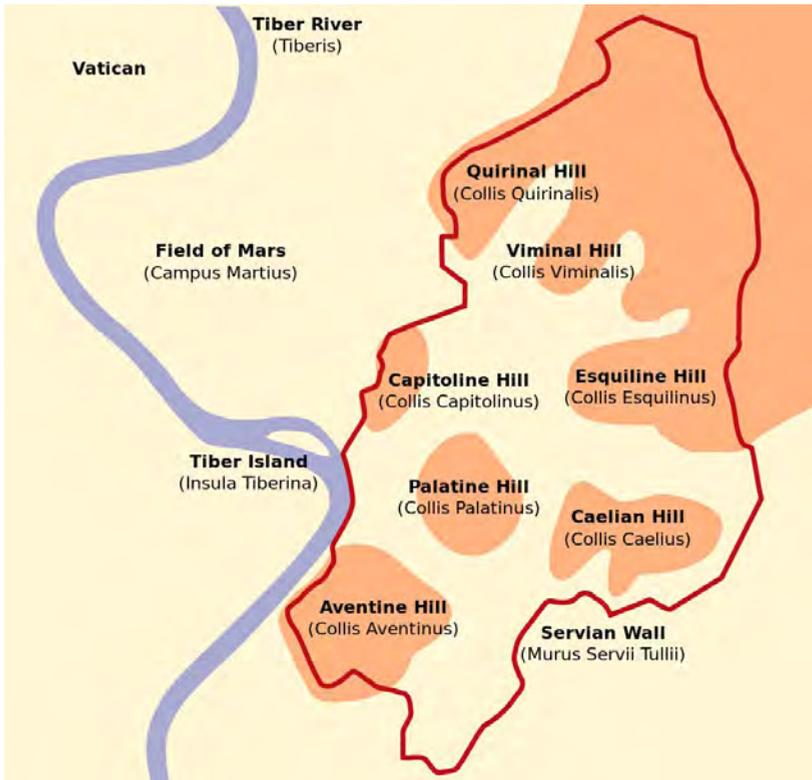
<sup>29</sup> The Greek word *agalma* denotes an ornament, something to enjoy, or which is splendid. This could be a young woman: in *Iphigenia at Aulis* by Euripides, the *agalmata* of Nereus are his (fifty) daughters, who are his joy of whom he is proud. The chorus is concerned with the wedding feast of Peleus and Thetis: “The fifty daughters of Nereus, spinning in circles, danced the wedding dance”. Or then, *agalma* may denote a visual representation (painted or sculpted), for example of some deity (and possibly being offered to the latter). On p. 152 in Ch. 2 in *Euripides and the Language of Craft* by MARY STIEBER (Mnemosyne Supplements: Monographs in Greek and Roman Language and Literature, 327, Leiden: Brill, 2011), one reads that once ashore at the end of the journey to Taurus, the travellers “take shelter in a cave, where they are spotted by the locals who mistake them for a protracted list of sundry divinities and demigods that finishes with a great flourish with ‘agalmata of Nereus’ [...], the old man of the sea whose fifty daughters are alluded to in the same gesture as a ‘noble chorus’ [...] Iphigenia at vv. 216–217 had already reminded the audience of the importance in her story of one of these Nereids, Thetis, whose son, Achilles, was promised her as a husband at the start of the Trojan expedition in order to lure her to the site. At vv. 273–274 a generic ‘agalmata’, which immediately triggers the unmarked visual response, ‘statue’, is juxtaposed with a verbal description of dancing Nereids, engendering a secondary, this time marked, visual response”.

<sup>30</sup> SALE, “The Popularity of Aratus”, 163–164.

4. *Vinci and Maiuri's Interpretation of Rome's Seven Hills Within the Servian Wall in Relation to the Pleiades, and Why Ovid Was Exiled from Rome*

4.1. Rome's Seven Hills, in Relation to the Pleiades, the Constellation Most Obvious to the Naked Eye in the Night Sky (fig. 9)

The Pleiades, also known (in English) as the Seven Sisters, are a star cluster located in the constellation of Taurus<sup>31</sup>. The Pleiades are “the cluster most obvious to the naked



**Fig. 9. The Seven Hills (*septem colles*) of Rome<sup>32</sup>.**

eye in the night sky”<sup>33</sup>. So distinctive are they, that in Babylonian star catalogues the

<sup>31</sup> An interpretation of the Pleiades was offered, e.g., by FRANCISCO MOLINA MORENO, “The Pleiads, or the First Cosmic Lyre”, *Hyperboreus*, 14 (2008) 28–38 (<http://eprints.ucm.es/15319/>).

<sup>32</sup> [https://en.wikipedia.org/wiki/File:Seven\\_Hills\\_of\\_Rome.svg](https://en.wikipedia.org/wiki/File:Seven_Hills_of_Rome.svg)

<sup>33</sup> <https://en.wikipedia.org/wiki/Pleiades> “The Pleiades are a prominent sight in winter in the Northern Hemisphere, and are easily visible out to mid-Southern latitudes” (*ibid.*). The Pleiades are distinctive, so various cultures worldwide perceived them as a group. “The earliest known depiction of the

Pleiades are called in Sumerian <sup>MUL</sup>MUL, literally “star star” (the classifier for ‘star’ is applied to a constellation which in this case is itself called ‘star’ *par excellence*).

Vinci and Maiuri<sup>34</sup> have recently proposed that the ascription of only seven hills to Rome within the Servian Wall (which was built in the early fourth century B.C.E.)<sup>35</sup>,

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Pleiades is likely a Northern German bronze age artifact known as the Nebra sky disk, dated to approximately 1600 BC” (*ibid.*, and see [https://en.wikipedia.org/wiki/Nebra\\_sky\\_disk](https://en.wikipedia.org/wiki/Nebra_sky_disk)). The Nebra sky disk is made of bronze, and was uncovered in 1999 on Mt. Mittelberg, near Nebra, in Saxony-Anhalt, Germany. It shows a crescent (the Moon), a circle (either the Sun, or the full Moon), and a star cluster, apparently the Pleiades. See e.g. JOSEF M. MAYER, *Die Himmelspferde von Nebra und Stonehenge: Astronomie und Mythos in der Bronzezeit*, Gräffeling: Mantis, 2015.

Chinese astronomy recognised them as a cluster (in Chinese, they are called 昴 *Mǎo*), whereas other constellations perceived as such in western Eurasia were differently delimited in Chinese culture. Note however that in Japan, the Pleiades were referred to a *Mutsuraboshi* — “six stars” instead of seven — in the eighth century *Kojiki*. This depends upon which stars were considered to be brightest, and upon how the “shortlist” was allowed to be. In Graeco-Roman and European tradition, “[t]he nine brightest stars of the Pleiades are named for the Seven Sisters of Greek mythology: Sterope, Merope, Electra, Maia, Taygeta, Celaeno, and Alcyone, along with their parents Atlas and Pleione”, in the words of <https://en.wikipedia.org/wiki/Pleiades>.

Also consider an Andean festival of the Pleiades: R. RANDALL, “Qoyllur Rit’i, an Inca Fiesta of the Pleiades: Reflections on Time and Space in the Andean World”, *Bulletin de l’Institut Français d’Études Andines*, 11 (1982) 37–81. The following is quoted from pp. 248–249 in SUSANNA PAISLEY and NICHOLAS J. SAUNDERS, “A God Forsaken: The Sacred Bear in Andean Iconography and Cosmology”, *World Archaeology*, 42(2), thematic issue on Humans and Animals, June 2010, 245–260 (<https://www.jstor.org/stable/25679743>): “The most striking ritual related to Andean bears is the Peruvian festival of Qoyllur Rit’i, the largest native pilgrimage celebrated in the Andes [...] The main protagonists are the *ukukus*, or bear-men, who represent a large proportion of the tens of thousands of celebrants who ascend to a 5000m-high valley surrounded by glaciers (Randall 1982). From there, only the *ukukus* risk their lives by continuing up the perilous glaciers and cutting blocks of ice which they carry down the mountain on their backs [...] The melted ice is used for healing and ensuring the fertility of crops (RANDALL 1982: 43). The earliest image of the festival, depicting the fur-clad *ukukus*, is a sixteenth-century polychrome q’ero vessel [...] The festival is, however, likely to have pre Columbian origins (RANDALL 1982: 41). It celebrates the reemergence of the Pleiades constellation and with it a time of health and fertility (RANDALL 1982: 43). *Ukukus* mediate between the crucial stages, concepts and identities of social life: sickness and regeneration, highland and lowland, humans and animals, nature and culture, childhood and adulthood, order and chaos [...]”.

<sup>34</sup> FELICE VINCI and ARDUINO MAIURI, “Mai dire Maia. Un’ipotesi sulla causa dell’esilio di Ovidio e sul nome segreto di Roma (nel bimillenario della morte del poeta)”, *Appunti Romani di Filologia: Studi e comunicazioni di filologia, linguistica e letteratura greca e latina* (Pisa and Rome: Fabrizio Serra), 19 (2017 [2018]) 19–30. Cf. their paper “Le Pleiadi e la fondazione di Roma”, *ibid.*, 21 (2019) 17–23. The papers can be accessed at <http://www.futuroquotidiano.com/wp-content/uploads/2018/04/Mai-dire-Maia-di-Felice-Vinci.pdf> and <http://www.futuroquotidiano.com/wp-content/uploads/2018/07/Le-Pleiadi-e-la-fondazione-di-Roma-4.7.2018-def.pdf>

<sup>35</sup> [https://en.wikipedia.org/wiki/Seven\\_hills\\_of\\_Rome](https://en.wikipedia.org/wiki/Seven_hills_of_Rome) states: “Tradition holds that Romulus and Remus

and the very plan of those walls, were intended for them to correspond to the number of stars in the Pleiades (fig. 10), as well as to the layout of respectively those hills and stars, with the Palatine hill (upon which, tradition maintains, Romulus had founded the city, the Square City, first drawing its contour on the ground) corresponding to the star Maia, and to the goddess bearing that name (fig. 11). The latter's name was tabooed, under the death penalty, in the context of reference to the foundation of Rome (see in the next subsection).



**Fig. 10. The Pleiades.** The seven sisters are to the right, and their parents, Pleione and Atlas, to the left. Two names labelling the stars in this otherwise adequate image from the Web are misspelled; *recte*: *Taygete* or *Taugete*, and *Celaeno*.

Rome's *Septimontium*<sup>36</sup> is not the same as Rome's Seven Hills<sup>37</sup>, but rather has to be understood with reference to an earlier phase in the history of the settle-

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founded the original city on the Palatine Hill on April 21st, 753 BC, and that the seven hills were first occupied by small settlements that were not grouped nor recognized as a city called Rome. The seven hills' denizens began to interact, which began to bond the groups. The city of Rome, thus, came into being as these separate settlements acted as a group, draining the marshy valleys between them and turning them into markets (*fora* in Latin). Later, in the early 4th century BC, the Servian Walls were constructed to protect the seven hills".

<sup>36</sup> Varro, *Lingua Latina*, 5.41: "ubi nunc est Roma, Septimontium nominatum ab tot montibus quos postea urbs muris comprehendit".

<sup>37</sup> [http://www.digiter.it/geoarcheologia-en/seven-hills\\_rome/](http://www.digiter.it/geoarcheologia-en/seven-hills_rome/) points out: "The seven hills are actually eroded remnants of a volcanic plateau dissected over many centuries by streams. The origin of these deposits are the Volcano of the Colli Albani to the SE and the Sabatini volcanic complex to the NW of the city". "Rising of the sea level caused in the final Pleistocene and the Holocene the progressive infill by alluvial deposits of the Tiber valley and its tributaries" (*ibid.*). Also see M. PAROTTO, "Evoluzione paleogeografica dell'area romana: una breve sintesi", in FUNICIELLO, R., PRATURLON, A. and GIORDANO, G. (ed) *La Geologia di Roma dal centro storico alla periferia*, edited by R. FUNICIELLO, A. PRATURLON and G. GIORDANO = *Memorie Descrittive della Carta Geologica d'Italia*, 80 (2008) 25–39. G. HEIKEN, R. FUNICIELLO and D. DE RITA, D., *The Seven Hills of Rome: A Geological Tour of the Eternal City*, Princeton, New Jersey: Princeton University Press, 2007.



ment<sup>38</sup>. During the yearly festival of the *Septimontium*, sacrifices were offered by the inhabitants of the three peaks of the Palatine Hill, by the inhabitants of the three peaks of the Esquiline Hill, and by the inhabitants of the neighbourhood of Suburra<sup>39</sup>.

Francesca Fulminante has shown how from an original *Trinmontium* with just three hills, the urban area developed into a *Quinquimontium* with five hills, then in proto-history into a *Septimontium* with seven hills<sup>40</sup>. Vinci and Maiuri have warned<sup>41</sup> against too much confidence in the popularisation<sup>42</sup> of archaeological findings, because there is a margin of uncertainty when trying to reconstruct the process of urbanisation of the early settlements that became Rome. There is no dearth of orographical reliefs in the area, and the canonical number of seven hills (which could have easily been larger, considering the conditions on the ground) was probably deliberate, and in particular, in order to match the seven Pleiades<sup>43</sup>.

Vinci and Maiuri suspect that there is a correspondence between the Caelian Hill (Collis Caelius) and the star Celaeno (see on it Cicero, *Aratea* 270)<sup>44</sup>, in respect of both their names, and their position *vis-à-vis* respectively the other hills among the Seven Hills, or the other stars of the Pleiades<sup>45</sup> (fig. 12). They also suspect that (as per the account in Ovid's *Fasti* 4.817) the discrepancy between how many birds Romulus and Remus were able to sight, respectively on the Palatine and the Aventine (Remus saw six, whereas Romulus saw twelve) reflects the varying visibility of the stars of the Pleiades, which according to the weather and the acuity of the eyesight of the beholder, may vary in number indeed between those two extremes<sup>46</sup>. What is more, in both ancient Greece, and the folklore of some regions of Italy, the Pleiades were conceptualised as being fowl (doves in Greece, chickens in Italy. This is something that found expression in Giovanni Pascoli's poem *Il gelsomino notturno*, 15–16: “La Chiocchetta per l'aia azzurra / va col suo pigolio di stelle”).

<sup>38</sup> VINCI and MAIURI, “Mai dire Maia”, p. 23.

<sup>39</sup> That much was pointed out by GEORGES DUMÉZIL, *La religion romaine archaïque, suivi d'une appendice sur la religion des Étrusques*, Paris: Payot, 1966.

<sup>40</sup> FRANCESCA FULMINANTE, *The Urbanisation of Rome and Latium Vetus: From the Bronze Age to the Archaic Era*, New York: Cambridge University Press, 2014, 75 ff.

<sup>41</sup> VINCI and MAIURI, “Mai dire Maia”, 23, fn. 17.

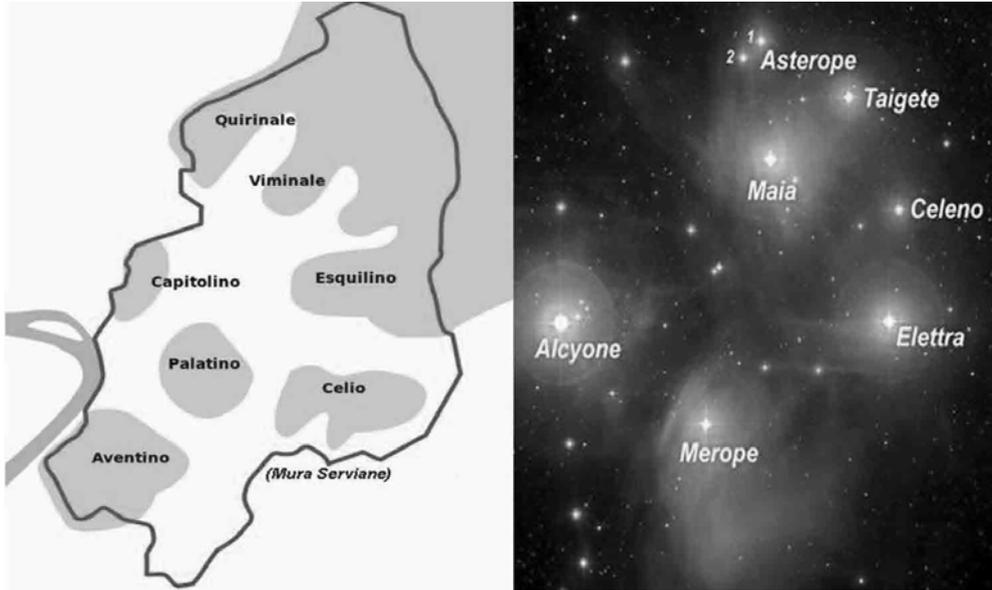
<sup>42</sup> Which is the case of ANDREA CARANDINI, *La fondazione di Roma raccontata da Andrea Carandini*, Rome and Bari: Laterza, 2013.

<sup>43</sup> VINCI and MAIURI, “Mai dire Maia”, 24.

<sup>44</sup> Also see [https://en.wikipedia.org/wiki/Celaeno\\_\(star\)](https://en.wikipedia.org/wiki/Celaeno_(star))

<sup>45</sup> VINCI and MAIURI, “Mai dire Maia”, 24, fn. 18.

<sup>46</sup> VINCI and MAIURI, “Mai dire Maia”, 25.



12. Rome's Seven Hills within the Servian Wall appear to reflect not only the number of stars in the Pleiades, but even their layout within the constellation, with Maia corresponding to the Palatine Hill on which Romulus founded the city<sup>47</sup>.

There used to be an ancient (and medieval) idea which maintained that what is sacred on earth is a reflection of something found in the vault of Heaven. This was stated quite explicitly –“*Quod est inferius, est sicut quod est superius*”– in “a series of oracular precepts of unknown date attributed to the legendary founder of alchemy in the West, Hermes Trismegistus”<sup>48</sup>, namely, the *Tabula Smaragdina*<sup>49</sup>, at §2.

The influence of the *Hermetica* was enormous. In the first instance, this tradition was fostered in the Middle East, by the Sabaeans of Harran and the Muslims, together with

<sup>47</sup> “La corrispondenza appare così singolare da ingenerare il sospetto che lo stesso tracciato delle Mura Serviane possa essere stato adattato all’esigenza di adeguare, nei limiti del possibile, il *layout* del territorio cittadino in esse racchiuso alla configurazione delle sette stelle, al centro delle quali si trovava, appunto, la *sanctissima* Maia: a quest’ultima in modo particolare corrisponde la centralità del Palatino, su cui Romolo aveva tracciato il solco della Città Quadrata” (VINCI and MAIURI, “Mai dire Maia”, p. 24).

<sup>48</sup> Quoted from p. 43, col. 2, in ALLISON P. COUDERT, “Alchemy IV: 16th–18th Century”, in *Dictionary of Gnosis & Western Esotericism*, edited by WOUTER J. HANEGRAAFF, with ANTOINE FAIVRE, ROELOF VAN DEN BROEK, and JEAN-PIERRE BRACH, Leiden: Brill, 2006, 42–50.

<sup>49</sup> See JULIUS RUSKA, *Tabula Smaragdina: Ein Beitrag zur Geschichte der hermetischen Literature*, Heidelberg: Carl Winter, 1926. Also see MARTIN PLESSNER, “Neue Materialien zur Geschichte der Tabula Smaragdina”, *Der Islam*, 16 (1927) 77–113, <https://www.degruyter.com/view/j/islam.1927.16.issue-1/islam.1927.16.1.77/islam.1927.16.1.77.xml>

other aspects of Greek philosophy and science. The best-known Hermetic text, the *Tabula Smaragdina* (Emerald Tablet), the “Bible of the alchemists”, which began to circulate in the West from the 13th century onwards, is also attributable to Islamic engagement with the alchemical *Hermetica*. Its earliest source is in Arabic versions, for example the final part of the “Book of the Secret of Creation” (also known as “Book of Causes”, 9th century) by Balinas, the Pseudo-Apollonios of Tyana<sup>50</sup>. The intellectual world of the *Tabula Smaragdina* derives from the Hermetism of Graeco-Egyptian alchemy<sup>51</sup>.

Vinci and Maiuri<sup>52</sup> exemplified this notion of correspondence between what is sacred on earth, and something corresponding in heaven<sup>53</sup>, through a brief mention of the heavenly Jerusalem of Ch. 21 of the *Apocalypse*, and then by pointing out that one of the Pleiades, Taygete, supposedly gave birth to a son fathered by Zeus, Lacedaemon, whose name is the same as that of a mountain near Sparta (a city also known by the name of that mountain, just as the Spartans are the Lacedaemonians). In fact, the Pleiades were considered to be both celestial nymphs, and Oreades, i.e., nymphs of the mountains.

#### 4.2. *Maia, Unnameable in Connection to the Founding of Rome, and Ovid's Sin*

Ovid was exiled to Tomi on the western coast of the Black Sea. A hypothesis put forth by Vinci and Maiuri concerns “the reason why Ovid was condemned by

<sup>50</sup> “Toward the middle of the 12th century Hugo of Santalla translated from the Arabic two texts: the *Liber de spatula* and the *De secretis naturae* by pseudo-Apollonius. [...] The *Liber de secretis naturae* is the translation of an Arab work, *Kitab sirr al-ḥaliqa* (Book of the secret of creation) attributed to Balinus (Apollonius of Tyana), who narrates the discovery of the text and of the *Tabula smaragdina* in Hermes’ crypt. The origin of the *Sirr al-ḥaliqa* is still uncertain –according to some scholars, it is the translation of a Greek text, according to others, it is an apocryphal Arab work–, but there is general agreement concerning the attribution of the Arab edition to the reign of al-Ma’mūn in the 9th century. Several different traditions flow into the work: Greek and Syriac, Islamic and pre-Islamic, philosophical and alchemical. A discussion of the nature and names of God is followed in the treatise by a description of the birth of the cosmos and the formation of minerals and stones, vegetable and animal life, and finally man. The book closes with the *Tabula smaragdina*, the most inspired and famous of alchemical texts”. Quoted from p. 515, col. 1, in PAOLO LUCENTINI and VITTORIA PERRONE COMPAGNI, “Hermetic Literature II: Latin Middle Ages”, in *Dictionary of Gnosis & Western Esotericism*, edited by WOUTER J. HANEGRAAFF, with ANTOINE FAIVRE, ROELOF VAN DEN BROEK, and JEAN-PIERRE BRACH, Leiden: Brill, 2006, 499–533.

<sup>51</sup> Quoted from p. 24, col. 2, in BERNARD D. HAAGE, “Alchemy II: Antiquity–12th Century”, in *Dictionary of Gnosis & Western Esotericism*, edited by WOUTER J. HANEGRAAFF, with ANTOINE FAIVRE, ROELOF VAN DEN BROEK, and JEAN-PIERRE BRACH. Leiden: Brill, 2006, 16–34.

<sup>52</sup> VINCI and MAIURI, “Mai dire Maia”, 23.

<sup>53</sup> Concerning the supposed correspondence of sea and terrestrial animals, see EPHRAIM NISSAN AND JEB MCLEISH, “Marine Equivalents of Land-Animals: Tracing the Idea from Antiquity to the Modern Period”, *MHNH*, 16 (2016 [2018]) 53–135.

Augustus to exile. By considering that the poet himself says in his *Tristia* that he had committed a crime worthy of death, such a hypothesis is based on an anomaly contained in the Book V of the *Fasti*, composed just before the sentence, where the connection between the background of the foundation of Rome and the constellation of the Pleiades (and, in particular, the star called *sanctissima Maia* by Cicero in his *Aratea*) is revealed<sup>54</sup>. By probing into this matter, Vinci and Maiuri “deduc[e] that *Maia* was the mysterious tutelary deity of Rome, whose name had to be kept strictly secret<sup>55</sup> (Valerius Soranus was executed in 82 BC for violating this prohibition)<sup>56</sup>.

<sup>54</sup> VINCI and MAIURI, “Mai dire Maia”, 30 (English abstract) is the source of both quotations in the first paragraph of this subsection.

<sup>55</sup> See now CHIARA OMBRETTA TOMMASI, “Il nome segreto di Roma tra antiquaria ed esoterismo. Una riconsiderazione delle fonti”, *Studi Classici e Orientali*, 60 (2014) 187–219, [https://www.academia.edu/11625585/Il\\_nome\\_segreto\\_di\\_Roma\\_tra\\_antiquaria\\_ed\\_esoterismo.\\_Una\\_riconsiderazione\\_delle\\_fonti\\_Studi\\_Classici\\_e\\_Orientali\\_60\\_2014\\_pp.\\_187-219](https://www.academia.edu/11625585/Il_nome_segreto_di_Roma_tra_antiquaria_ed_esoterismo._Una_riconsiderazione_delle_fonti_Studi_Classici_e_Orientali_60_2014_pp._187-219).

<sup>56</sup> Also see THEODOR BIRT, *De Romae urbis nomine sive de robore Romano*, Marburgi [Marburg]: Elwert, 1887; G. BRIZZI, “Il nomen segreto di Roma e l’*arcanum imperii* in Plinio”, in: LUIGI ALFONSI (ed.), *Plinio il Vecchio sotto il profilo storico e letterario. Atti del Convegno di Como 5-7 ottobre 1979; Atti della Tavola Rotonda nella ricorrenza centenaria della morte di Plinio il Vecchio, Bologna 16 dicembre 1979*, Como: Comitato manifestazioni pliniane (Società archeologica comense & Banca Briantea), 1982, pp. 237–251; FRANCIS CAIRNS, “Roma and her Tutelary Deity: Names and Associations”, in CHRISTINA S. KRAUS, JOHN MARINCOLA, CHRISTOPHER PELLING (eds.), *Ancient Historiography and its Contexts: Studies in Honour of A.J. Woodman*, Oxford: Oxford University Press, 2010, 245–266; GIANDOMENICO CASALINO, *Il nome segreto di Roma: metafisica della romanità* (collana Orizzonti dello Spirito), Roma: Edizioni Mediterranee, 2003 (previous edition: *Il nome segreto di Roma: secondo i simboli e la dottrina dell’arte regale: saggio sulla metafisica della romanità*, collana Studi Pagani, Genova: Il Basilisco, 1987); ERWIN HORSTMANN, *Der geheime Name der Stadt Rom: Beiträge zur römischen Mysteriengeschichte*, Stuttgart: Mellinger, 1979.

Being able to utter the name of the tutelary deity of a city would make it possible, so the ancient Romans believed, for a conquering army to invoke that deity so he or she would switch sides. This was the rationale behind a particular Roman military rite. See V. BASANOFF, *Evocatio. Étude d’un rituel militaire romain* (Bibliothèque de l’École des Hautes Études, Sciences religieuses, 61), Paris: Presses Universitaires, 1947; GABRIELLA GUSTAFSSON, *Evocatio deorum: Historical and Mythical Interpretations of Ritualised Conquests in the Expansion of Ancient Rome* (Acta Universitatis Upsaliensis Historia Religionum, 16), Uppsala: Uppsala Universitet, 2000; CHARLES GUITTARD, “Tolérance et intolérance dans le monde romain: l’exemple du rituel de l’*evocatio*”, in: Robert Bedon and Michel Polfer (eds.), *Être Romain. Hommages in memoriam Charles-Marie Ternès*, Remshalden: B.A. Greiner, 2007, 475–483.

Valerius Soranus was executed one century earlier than Ovid’s exile. Pliny the Elder, in his *Naturalis Historia*, 3.65, relates that Valerius Soranus had revealed Rome’s “other” name, i.e., her secret name: “*Roma ipsa, cuius nomen alterum dicere nisi arcanis caerimoniarum nefas habetur optimaque et salutari fide abolitum enuntiavit Valerius Soranus luitque mox poenas*”.

GIORGIO FERRI, “Valerio Sorano e il nome segreto di Roma”, *Studi e Materiali di Storia delle Religioni*, 74 (2007) 271–303, has claimed that the only reason Valerius Soranus was executed, which was during Sulla’s dictatorship, was that he belonged to Marius’ party, at a time when Sulla was persecuting the followers of his rival.

So the *culpa* ('mistake') that caused Ovidius' exile was probably the imprudent and unmentionable connection between *Maia* and the foundation of Rome".

Ovid intended for the *Fasti* to comprise twelve books, one for each month. Ovid was still writing the *Fasti*, and was working on the sixth book (thus, having only dealt with the months from January to June) when in the year 8 C.E., Augustus sentenced him to go into exile to the town of Tomi. That cut short the writing project of the *Fasti*<sup>57</sup> (but Luigi Piacente has proposed that Ovid went on to complete the *Fasti*, but that the last six books were then lost)<sup>58</sup>. An aetiological-antiquarian poem in elegiac distiches, it surveys the festivals, rituals, and customs of Roman tradition.

Ovid mentions that his guilt involved a poem. In the scholarly literature<sup>59</sup>, the reason for Ovid's exile has usually been related to a scandal at court involving Julia Minor, and to the *risqué* contents of the three books of Ovid's *Ars amatoria*. Scholars have also stressed the political aspect, and claimed that *lèse majesté* towards the *domus Augusta* was involved, or at any rate, what in Augustan times *crimen maiestatis*<sup>60</sup> was taken to be. Vinci and Maiuri do not dismiss such venues of inquiry, but find it cogent that it was something in the *Fasti* that brought about Ovid's exile.

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Also see TH. KÖVES-ZULAUF, "Die Ἐποπτιδες des Valerius Soranus", *Rheinisches Museum*, 113 (1979) 323–358; L. ALFONSI, "L'importanza politico-religiosa della enunciazione di Valerio Sorano (a proposito di CIL I<sup>2</sup> 337)", *Epigraphica*, 10 (1948) 81–89; MARCELLO DE MARTINO, *L'identità segreta della divinità tutelare di Roma. Un riesame dell'affaire Sorano*, Roma: Settimo Sigillo – Europa Libera Editrice, 2011; TREVOR MURPHY, "Privileged Knowledge: Valerius Soranus and the Secret Name of Rome", in ALESSANDRO BARCHIESI, JÜRGEN RÜPKE and SUSAN STEPHENS (eds.), *Rituals in Ink: A Conference on Religion and Literary Production in Ancient Rome, held at Stanford University in February 2002* (Potsdamer altertumwissenschaftliche Beiträge, 10), Stuttgart: Franz Steiner Verlag, 2004, 127–137.

<sup>57</sup> And indeed, Ovid stated that much in his poetic work about the sorrow of his exile, the *Tristia*, 2.551–552 ("*Idque tuo nuper scriptum sub nomine, Caesar, / et tibi sacratum sors mea rupit opus*").

<sup>58</sup> LUIGI PIACENTE, "I *Fasti* di Ovidio *opus ruptum*", in *Tanti affetti in tal momento. Studi in onore di G. Garbarino*, edited by ANDREA BALBO, F. BESSONE and E. MALASPINA. Alessandria, Piedmont: Edizioni dell'Orso, 2011, pp. 677–683.

<sup>59</sup> NINO SALANITRO, "Contributi all'interpretazione dell'error di Ovidio", *Il Mondo Classico*, 11 (1941) 254–271; WILLIAM H. ALEXANDER, "The culpa of Ovid", *The Classical Journal*, 53 (1958) 319–325; PETER GREEN, "*Carmen et error*. Πρόφρασις and αἰτία in the matter of Ovid's exile", *Classical Antiquity*, 1 (1982) 202–220; ALDO LUISI, "Vendetta-perdono di Augusto e l'esilio di Ovidio", in *Amnistia perdono e vendetta nel mondo antico*, edited by MARIA SORDI, Milan: Vita e pensiero, 1997, 271–292 (see especially pp. 276 ff.); ALDO LUISI, "*Culpa silenda*: l'error politico di Ovidio", *Classica et Christiana*, 4 (2009) 295–306.

<sup>60</sup> The *crimen maiestatis* is the subject of RICHARD ALEXANDER BAUMAN, *The crimen maiestatis in the Roman Republic and Augustan Principate*, Johannesburg: Witwatersrand University Press, 1970; ID., *Impietas in principem: A Study of Treason against the Roman Emperor with Special Reference to the First Century A.D.*, Munich: Beck, 1974.

Moreover, Ovid's reticence about what his guilt precisely was (*culpa silenda*, "a transgression concerning which it behoves to keep silent"), as well as Ovid referring to his having been lost by "two crimes: a poem and an error"<sup>61</sup>, has led scholars to look for two separate causes for Ovid's being condemned (as though the *error* had been political, while the poem was in the *Ars amatoria*), whereas Vinci and Maiuri suggest that their own hypothesis may bring the two things together.

Ovid acknowledges that it could have been worse for him, and that his life at any rate had been spared; a death penalty had been a possibility, whereas the ruler's clemency intervened, and he was exiled instead (*Tristia* 2.125–128: "*Cuius in eventu poenae clementia tanta est, / venerit ut nostro lenior illa metu, / vita data est, citraque necem tua constitit ira, / o princeps parce viribus use tuis*"). It was possibly in relation to the death penalty having been commuted, that Ovid had to remain silent about what his crime had been. Or then, arguably, the very nature of his crime (which according to Vinci and Maiuri was his having revealed the secret name of Rome's tutelary goddess) was such that any disclosure on Ovid's part would make him a reoffender.

And indeed, Vinci and Maiuri have detected what the offence had been, in the books of the *Fasti*, and in particular, in what Ovid had written more recently. It may be added that Ovid's contemporaries, had anything more precise than the hint he gave, transpired from the *Tristia* which he had written while in exile, hypothetically such being the case would have been motivated to check for themselves in the *Fasti*, and found the reason. Had any ancient Roman noticed, while reading the *Fasti*, that Ovid had broken the taboo, they would have had to remain silent about that, lest otherwise they in turn would have become offenders jeopardising their very life.

At the beginning of the fifth book of the *Fasti* (where Ovid surveys possible etymologies of the names of the month of May), one finds the muse Calliope relating the circumstances of the founding of Rome, and in *Fasti* 5.81–106<sup>62</sup>, she brings the

<sup>61</sup> "*Perdiderint cum me duo crimina, carmen et error / alterius facti culpa silenda mihi*" (*Tristia* 2.207–208).

<sup>62</sup> "*Duxerat Oceanus quondam Titanida Tethyn, / qui terram liquidis, qua patet, ambit aquis; // hinc sata Pleione cum caelifero Atlante / iungitur, ut fama est, Pleiadasque parit. // Quarum Maia suas forma superasse sorores / traditur et summo concubuisse Iovi. // Haec enixa iugo cupressiferae Cyllenes, / aetherium volucris qui pede carpit iter; // Arcades hunc Ladonque rapax et Maenalus ingens / rite colunt, Luna credita terra prior. // Exul ab Arcadia Latios Evander in agros / venerat, impositos attuleratque deos. // Hic, ubi nunc Roma est, orbis caput, arbor et herbae / et paucae pecudes et casa rara fuit. // Quo postquam ventum est, «Consistite!» praescia mater / «Nam locus imperii rus erit istud» ait. // Et matri et vati paret Nonacrius heros, / inque peregrina constitit hospes humo // sacraque multa quidem, sed Fauni prima bicornis / has docuit gentes alipedisque dei. // Semicaper, coleris cinctus, Faune, Lupercis, / cum lustrant celebres vellera secta vias; // at tu materno donasti nomine mensem, / inventor curvae, furibus apte, fidis. // Nec pietas haec prima tua est: septena putaris, / Pleiadam numerum, fila dedisse lyrae*".

Pleiades into the picture. Calliope first relates the birth of the mythological Pleiades from their mother Pleione, the father being Atlas. Right next, Maia is claimed to have been cuter than her sisters, and to have cohabited with Jupiter. Thus, Ovid was mentioning the Pleiades in relation to the foundation of Rome, but he was doing more, by insisting on Maia. In ancient Rome's literature, as traded down to us, Ovid is the only author ever who mentioned the Pleiades, let alone Maia<sup>63</sup>, in the context of Rome's origins. And yet, the foundation of Rome was a theme dealt with by many Latin as well as Greek writers. Why was Ovid alone in doing so while mentioning the Pleiades, and Maia in particular? This was not a subject concerning which Ovid could invent some novel narrative. Rather, arguably, he had breached a taboo, and it was precisely this that brought about his downfall.

Pliny the Elder, in his *Naturalis Historia*, 3.65, relates about the execution of Valerius Soranus for revealing Rome's "*nomen alterum*", the secret name of Rome (i.e., the name of the city's tutelary deity). It is again Pliny, who in *Naturalis Historia*, 28.18, explains that before a Roman army would lay a siege on a city, the Roman priests would invoke that city's tutelary deity, and that therefore, in order to avoid that some enemy would do the same to Rome, the name of Rome's tutelary deity had to be kept secret<sup>64</sup>. Take Athens: her tutelary deity was Athena; not infrequently, the name of the tutelary deity of the city was the same as the name of the city, but the magic "power name" that would be effective against the city was, in Rome's case, kept a secret on the pain of death<sup>65</sup>.

What Ovid had not stated quite explicitly in *Fasti* 5.81–106, an educated Roman could have easily inferred from what Ovid has written about the Pleiades and Maia in relation to Rome's origins. Like Vinci and Maiuri now, that ancient Roman reader could have inferred that it was Maia who was the goddess behind the cover of the epithet *Bona Dea*, a goddess whose actual name was tabooised<sup>66</sup>.

<sup>63</sup> Cicero, in his *Aratea*, 270–271, enumerating the Pleiades, ends the list with the "most holy Maia": "*Alcyone Meropeque Celaeno Taygeteque, / Electra Steropeque, simul sanctissima Maia*".

<sup>64</sup> The notion of a city's tutelary deity was explored, in the context of Roman religion, by GIORGIO FERRI, *Tutela Urbis: Il significato e la concezione della divinità tutelare cittadina nella religione romana*, Stuttgart: Steiner, 2010.

<sup>65</sup> This situation is quite different from the Jewish taboo on uttering the Tetragrammaton, the name of four letters quite frequently found written in the Hebrew Bible. The High Priest pronounced it in public, in the presence of the crowd of the faithful, during the yearly Day of Atonement. The utterance was a taboo, yet was no secret for the many people who heard it. See E. NISSAN, "Some Considerations on Jewish Names of Monotheism's Only Deity", Ch. 9 in *Onomastics between Sacred and Profane*, edited by OLIVIU FELECAN, WILMINGTON, DELAWARE: Vernon Press, 2019 [Sept. 2018], 119–140.

<sup>66</sup> VINCI and MAIURI, "Mai dire Maia", 26.

There is a statement in Macrobius, in his didascalical dialogues *Saturnalia*, 1.12.21 (a statement made upon the authority of the jurist Cornelius Labeo), which appears to confirm the identification of Maia with Bona Dea: “*Auctor est Cornelius Labeo huic Maiae, id est terrae, aedem Kalendis Maiis dedicatam sub nomine Bonae Deae*”. What is more, Macrobius, *Saturnalia*, 1.12.18, mentions a ritual of the *flamen* of Vulcan for that goddess, a ritual performed on the first of May (fig. 13): “*flamen Vulcanalis Kalendis Maiis huic deae rem divinam facit*”.

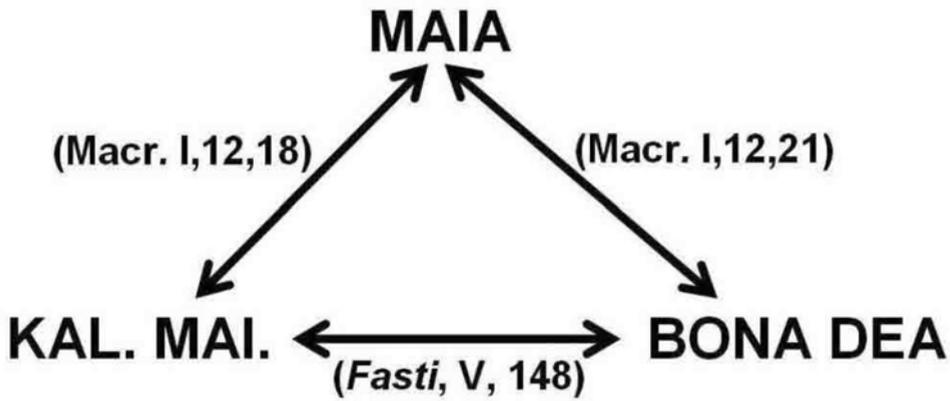


Fig. 13. A triangle of binary relations between Maia, Bona Dea, and the *Calendae* of May<sup>67</sup>.

Ovid himself names *Bona Dea* in connection to the first of May, the month of Maia; Ovid dedicated to her the last five distichs celebrating the first of May (the *Calendae* of May), and referring to the shrine of Bona Dea on the Aventine Hill (fig. 13), a shrine restored by Livia, the wife of Augustus, who was the *pontifex maximus* from 12 B.C.E. (*Fasti*, 5.157–158: “*Livia restituit, ne non imitata maritum / esset et ex omni parte secuta virum*”).

Vulcan’s relation to Maia is amenable<sup>68</sup> to the first offering his services as a protective fire to the goddess, who is also one bearing the secret name of Rome. Georges Dumézil had remarked about the relation between the third fire<sup>69</sup> of the sacrificial area in Hindu rites — this being a tutelary fire protecting at the border against evil spirits — and Vulcan.

<sup>67</sup> VINCI and MAIURI, “Mai dire Maia”, 26.

<sup>68</sup> VINCI and MAIURI, “Mai dire Maia”, 26–27.

<sup>69</sup> Note the distinction that needs to be made between the different fires of the Hindu sacrificial area, and the idea that there are different *kinds* of fire. Concerning the latter, see EPHRAIM NISSAN and ABRAHAM OFIR SHEMESH, “The Fire of Illness: Diphtheria, Talmudic Homiletics, Eastern Traditions of Taxonomising Fire, and the Medieval Tales of Ben Sira”, *Rivista di storia della medicina: organo ufficiale della Società italiana di storia della medicina*, 24(2), new series (year 45) (2014) 15–49 + abstract on p. 3.

Besides, Vinci and Maiuri suggest that the Roman ritual of sacrificing to Maia a pregnant sow is in relation to swine being the only large domestic quadruped that could give birth to a multitude of cubs (at present, an average of eight to nine piglets per birth). This in turn, like Giovanni Pascoli's using as a simile for the Pleiades, image of the hen with her chicks in his poem *Il gelsomino notturno*, arguably is akin to the large brood being the seven sisters, the Pleiades<sup>70</sup>.

What is more, once we understand that Bona Dea and Maia were the same, we become able to make better sense of the scandal involving Julius Caesar's wife, Pompea. She was one of the *inlustriores* women, in charge of the cult of Bona Dea, whose ceremonies excluded any male presence. Julius Caesar was the *pontifex maximus*. During the night of 4 December 62 B.C.E., during a ceremony in the presence of Pompea and the Vestals, Publius Clodius Pulcher intervened, disguised as a woman. Clodius was unmasked, and put on trial (Cicero was involved in it), and escaped the death penalty. Allegedly, his exoneration was obtained by bribes<sup>71</sup>. This was related by Appianus, *Bellum Civile*, 2.2.14. Caesar divorced his wife. Caesar, being the *pontifex maximus*, was either the only one, or one of the very few, who were aware that Bona Dea was the same as Maia, whose name was the secret name of Rome.

Clodius' crime had taken place seventy years earlier than Ovid's transgression, which itself had been his alluding to the identity of Bona Dea with Maia, thus compromising the secrecy of Rome's secret name. Clodius had been exonerated (a scandal within the scandal) during an age of decline, whereas Augustus, in line with the image he wanted to project of his rule, could not afford to be lenient, other than by sparing Ovid's life, yet exiling him far away<sup>72</sup>. One facilitating factor for Ovid not to be put to death must have been that he had not revealed the secret name explicitly. Rather, he provided his readers with cues from which they could lift the veil of secrecy.

<sup>70</sup> VINCI and MAIURI, "Mai dire Maia", 27.

<sup>71</sup> JOHN PERCY VYVIAN DACRE BALSDON, "Fabula Clodiana", *Historia: Zeitschrift für Alte Geschichte*, 15 (1966) 65–73; PHILIPPE MOREAU, *Clodiana religio: Un procès politique en 61 av. J.C.*, Paris: Les Belles Lettres, 1982; DAVID F. EPSTEIN, "Cicero's Testimony at the Bona Dea Trial", *Classical Philology*, 81 (1986) 229–235; W. JEFFREY TATUM, "Cicero and the Bona Dea Scandal", *Classical Philology*, 85 (1990) 202–208.

<sup>72</sup> "Tornando a Ovidio, questo insieme di circostanze appare perfettamente congruo con l'ipotesi qui sviluppata, che cioè l'*error* possa essere consistito in una inopportuna allusione all'inconfessabile rapporto delle Pleiadi (e Maia) con la città di Roma; un *error* talmente grave da compromettere la segretezza stessa del nome della dea protettrice. Questa ipotesi ricaverebbe un'implicita conferma dalla posizione estremamente ravvicinata della digressione su Bona Dea, in occasione del 1 maggio. Di qui il giudizio di condanna, per un reato sicuramente meno grave di quello perpetrato da Clodio settant'anni prima, ma comunque calato in un contesto politico-istituzionale alquanto delicato, in presenza di una precisa volontà di ripristino della severità e dell'austerità degli antichi costumi" (VINCI and MAIURI, "Mai dire Maia", 28).

The Clodius affair belongs to Clodius' early career:

Publius Clodius Pulcher (92–52 BCE) was born into an illustrious family. After a troubled youth and brief military career, he entered politics and immediately attracted attention. On the one hand, he was a demagogue who supported the people and not the patricians, despite his birth, rank, and fortune. On the other hand, he was a kind of “Dandy,” a fop who loved playing seducer, attached great importance to his appearance, courted Rome's beautiful women, and became famous not so much for his political activities as for his escapades. At least that is what his enemies who wrote about this subject would have us believe, first and most famous among them, Cicero<sup>73</sup>.

Cicero disproved Clodius' alibi and earned the defendant's enmity:

His [Clodius'] most notorious escapade, the one that unleashed an enormous scandal and almost cost him his career, took place the evening of December 4, 62. In an attempt to seduce Pompeia Sulla, Caesar's first wife, with whom he was in love, Clodius disguised himself as a woman and entered Caesar's house. The residence was a sacred place because Caesar functioned as the great pontiff, the highest magistrate in the public religion of Rome. It was also the time for celebrations and rites to honor the deity of chastity, the goddess Bona Dea; only women were authorized to attend these rites. Despite his disguise as a kithara player, Clodius was betrayed by his deep voice and discovered; he managed to escape nevertheless. But a major scandal ensued: a man present at the rites of Bona Dea, that was unheard of! Brought before a court, Clodius defended himself by claiming that it must have been someone else, that he himself was far from Rome at the time of the events; he even produced a witness to corroborate his testimony. But Cicero testified that he had encountered Clodius in Rome that very afternoon, thus exposing his weak alibi. Clodius then found another means for escaping condemnation; he bribed the jurors. Acquitted, he was released to freedom but harbored a fierce and lasting hatred toward Cicero henceforth.

The scandal did not put an end to Clodius' political career, even though it did put an end to Caesar's marriage:

The affair caused quite a stir and led to Caesar's divorce from Pompeia Sulla. Clodius, however, managed to stay out of the limelight for a while; he then re-launched his political career as if nothing had happened. In 59, he succeeded in getting elected tribune of the plebs, took demagogic measures, distributed free wheat, modified many laws partial to the magistrates, and regained wide popularity. He then took on Cicero, reproached him for having unjustly accused alleged conspirators, and with the aid of the consul Piso, had him condemned to exile.

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<sup>73</sup> MICHEL PASTOUREAU, *Yellow: The History of a Color* (Princeton, NJ: Princeton University Press, 2019), on p. 58 in Chapter “The Clodius Affair”.

Cicero's house on the Palatine was destroyed, and his belongings were confiscated and auctioned off. Thanks to a front man, Clodius was able to acquire them<sup>74</sup>.

The trajectory of Clodius' late career was a precedent for the civil war between Caesar and Pompey, and a harbinger for the end of the Republic (that nevertheless had already experienced the violent rivalry of Marius and Sulla):

With Caesar away waging war in Gaul, Clodius gradually took control of Rome, maintaining various armed gangs charged with eliminating all his enemies. But his enemies had gangs of their own, notably Titus Annius Milo, head of the patricians' party. For three years, unrest and confrontations ensued, disrupting all the elections. Then, on January 18, 52, on the Appian Way, Clodius and his band unexpectedly encountered Milo's band. Milo was a candidate for the consulate. The skirmish was violent. Clodius was wounded, then taken to an inn and killed by one of Milo's slaves. This dishonourable death on the Appian Way unleashed the wrath of the people, which the Senate had a very hard time containing. Accused of murder and brought before a special court, Milo was defended by Cicero, quite clumsily, and the trial unfolded in a tense and hostile atmosphere for the great orator. Milo was spared capital punishment but was condemned to exile in Marseille. He died four years later, during the wars between Caesar and Pompey<sup>75</sup>.

Cicero rewrote his speech for the defence as his masterly *Pro Milone*. He argued that Clodius was the aggressor, a detestable tyrant who deserved to die. But Cicero lingered on the Bona Dea affair, claiming that Clodius' cross-dressing reflected his debauchery, and supposedly his sexual orientation (rather than his pursuit of adultery). "Cicero takes delight in describing Clodius' outfit during this scandalous episode: a yellow gown dyed with saffron (*crocata*), a long-sleeved tunic (*tunica manicata*), headdress in the form of turban (*mitra*), women's sandals (*soleae muliebres*), crimson ribbons and frills (*fascolae purpurae*), and even what we would now call a bra (*strophium*) meant to support a bosom that Clodius was apparently not lacking"<sup>76</sup>.

Vinci and Maiuri<sup>77</sup> have pointed out that Ovid was from the town of Sulmona, at the feet of the Maiella, a massif in the present-day Italian region of Abruzzi. The very name *Maiella* is, according to popular tradition (and to one of the scholarly etymo-

<sup>74</sup> PASTOUREAU, *Yellow*, 58–59.

<sup>75</sup> PASTOUREAU, *Yellow*, 59.

<sup>76</sup> PASTOUREAU, *Yellow*, 59, 62.

<sup>77</sup> In the last paragraph of FELICE VINCI and ARDUINO MAIURI, "Le Pleiadi e la fondazione di Roma", *Appunti Romani di Filologia: Studi e comunicazioni di filologia, linguistica e letteratura greca e latina*, 21 (2019) 17–23. The paper can be accessed at <http://www.futuroquotidiano.com/wp-content/uploads/2018/07/Le-Pleiadi-e-la-fondazione-di-Roma-4.7.2018-def.pdf>

logical hypotheses)<sup>78</sup>, patterned after the goddess Maia, to which the place is connected by various local mythological narratives<sup>79</sup>. Vinci and Maiuri have proposed:

È dunque ragionevole supporre che proprio l'origine maiellana abbia indotto il poeta a soffermarsi temerariamente sull'innominabile, proibito collegamento della dea –e dunque delle stesse Pleiadi– con la fondazione dell'Urbe: una colpa che gli sarebbe costata l'esilio a vita, ma che per noi è anche una *felix culpa*, in quanto ci ha dato la possibilità di far luce sul mistero del nome segreto di Roma, nonché sul significato astronomico-calendario della sua mitica data di fondazione.

[Therefore, it is reasonable to suppose that it was precisely his Maiellan background that led the poet to recklessly dwell on the forbidden mention of the connection between that goddess –and therefore the Pleiades– to the founding of Rome. This guilt cost him exile for life, but for us it is also a *felix culpa*, a lapse ending in bliss<sup>80</sup>, as it has enabled us to clarify the mystery of Rome's secret name, as well as the astronomical and calendrical significance of her mythical date of foundation.]

#### 4.3. The Date of the Founding of Rome, April the 21st, the First Day of the Zodiac Sign of Taurus, the Constellation Comprising the Pleiades

Arguably, an argument in support of the hypothesis that relates Rome to the Pleiades is as follows. The traditional date that the ancient Roman maintained was the date of the founding of Rome is April the 21st. That day of the calendar is significant,

<sup>78</sup> A different etymological hypothesis is related to a tree known as *maio*, which flowers in the month of May. Vinci and Maiuri mention this in the last footnote (fn. 30) of the same paper, along with the peasants' custom of attaching, on May-day (May the 1st), a green branch of that plant to the door of the maiden they were courting, while in a euphoric state referred to as *maiūma* (O. Pianigiani, *Vocabolario Etimologico della Lingua Italiana*, Vol. 2, Milan: Sonzogno, 1900, s.v.).

Nissan signals that according to an early rabbinic mythological tradition (preserved in the Buber edition of *Tanḥuma*, pericope *Shemini*, 8, and in *Numbers Rabbah*, 10) about the sins of the pre-exilic tribes of Israel, each tribe used to celebrate a (pagan) festival called *maiūmas* ("each tribe had its own *maiūmas*"). The latter word is from Latin *maiuma* through Greek μαῖουμαῖς.

See s.v. *maiūmas* in MARCUS JASTROW, *Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature* (2 vols.), London: Luzac & Co.; New York: G.P. Putnam's Sons; Leipzig: Trübner & Co., 1903; often reprinted by various publishers; e.g. Peabody, MA: Hendrickson Publ., 2005 (in 1 vol. of 1736 pp.). Marcus Jastrow's dictionary is also accessible online; its Vol. 1 is at <http://www.etana.org/sites/default/files/coretexts/14906.pdf> whereas its Vol. 2 can be found at <http://www.etana.org/sites/default/files/coretexts/14499.pdf>

<sup>79</sup> In the last footnote of that same paper, Vinci and Maiuri point out that the town of Pennapedimonte in the province of Chieti is at the feet of a rock pinnacle likened to a sitting woman. It used to be worshipped as a local goddess, who was eventually identified with Maia and worshipped as such.

<sup>80</sup> Like Adam's and Eve's Fall, opening post-lapsarian sacred history leading to eventual Salvation.

in relation to the Pleiades. True, this especially holds when the correct solar calendar is used, or at any rate, the calendar relating to the Zodiac, the way astrology uses it. Numa Pompilius' calendar, so inadequate that Julius Caesar needed to apply a drastic remedy before he had the Julian calendar come into effect, would have been problematic for correspondence with the Zodiac as well as with the cycle of seasons, but it stands to reason that the problem was recognised during the Roman Republic, and not just by the man, Caesar, who brought the Republican period to an end<sup>81</sup>.

Mesopotamian astronomy recognised a calendrical role to the Pleiades. As pointed out by Lorenzo Verderame<sup>82</sup>, “the Pleiades play an important part in the calendar reckoning, a role that is clearly stated in almanacs as the *MUL.APIN*”<sup>83</sup> (the *MUL.APIN* is the most important astronomical and astrological compendium extant from ancient Mesopotamia). The rise of the Pleiades is situated temporally in the second month of the Babylonian calendar, which is the month of *Ayāru* (April–May)<sup>84</sup>. On the first day of the month of *Ayāru*, the Pleiades become visible (*MUL.APIN* ii 38)<sup>85</sup>. *Ayāru* is the Babylonian name of that month. The Sumerian name of that month, GU<sub>4</sub>.SI.SÁ (‘driving the ox [or: oxen]’, where GU<sub>4</sub> denotes ‘ox, bull’) reminds of the name of the constellation Taurus<sup>86</sup>.

<sup>81</sup> The Roman calendar is the subject of P. BRIND'AMOUR, *Le calendrier romain: Recherches chronologiques*, Ottawa, Ontario, Canada: Éditions de l'Université d'Ottawa, 1983.

<sup>82</sup> L. VERDERAME, “Pleiades in Ancient Mesopotamia”, *Mediterranean Archaeology and Archaeometry*, 16 (2016) 109–117 ([https://www.academia.edu/30669456/Pleiades\\_in\\_Ancient\\_Mesopotamia](https://www.academia.edu/30669456/Pleiades_in_Ancient_Mesopotamia)). Also see ID., “Le calendrier et le compte du temps dans la pensée mythique suméro-akkadienne”, *De Kêmi à Birût Nāri: Revue Internationale de l'Orient Ancien*, 3 (2008–2009) 121–134; ID., “I rapporti tra architettura e corpi celesti nell'antica Mesopotamia”, in *Il cielo e l'uomo: problemi e metodi di astronomia culturale. Atti del VII Convegno Nazionale della Società Italiana di Archeoastronomia (Roma, Museo Nazionale Romano, Terme di Diocleziano, 28-29/9/2007)*, edited by E. ANTONELLO, Milan: Società Italiana di Archeoastronomia, 2010, 55–61.

<sup>83</sup> VERDERAME, “Pleiades in Ancient Mesopotamia”, 109.

<sup>84</sup> The month of *Ayāru* gave the name *Iyyār* to the originally second month of the Hebrew lunisolar calendar, a calendar whose first month used to be *Nīsān* (Nissan), the month of Passover. At present (and this has been the case in the last two thousand years), the Jewish year begins in the autumn, whereas *Nīsān* is still formally recognised as the month from which in principle the years of reign of the nation's kings are to be counted. The Pentateuch refers to “the first month”, *Nīsān*, as “the month of the *aviv* (early wheat)”. In Modern Hebrew, *aviv* has come to denote ‘springtime’.

<sup>85</sup> VERDERAME, “Pleiades in Ancient Mesopotamia”, 113.

<sup>86</sup> “[T]he rise of the Pleiades is fixed in the second month of the Babylonian calendar *Ayāru* (April/May). It should be noted that the Sumerian name of the month, GU<sub>4</sub>.SI.SÁ (‘driving the ox(en)’; gu<sub>4</sub> ‘ox, bull’) recalls the name of the Taurus constellation” (VERDERAME, “Pleiades in Ancient Mesopotamia”, 112. Concerning the Pleiades as a *pars pro toto* for Taurus, see *ibid.*, 110).

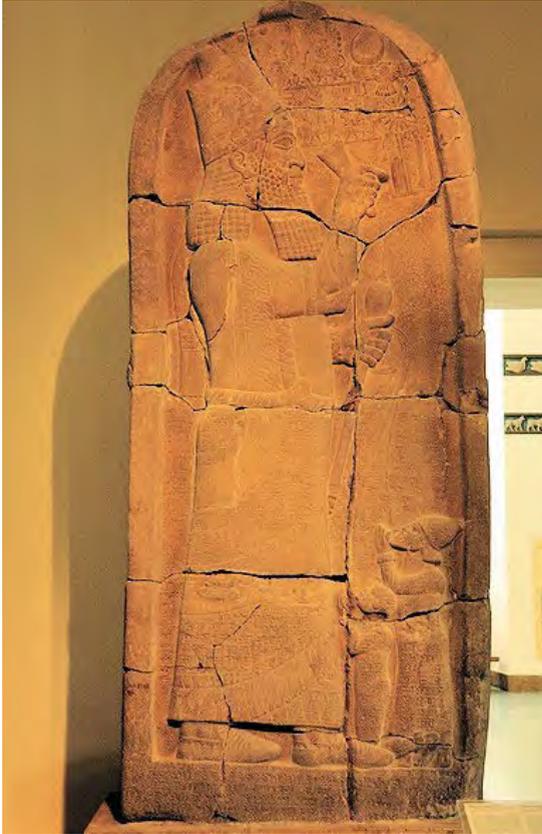


Fig. 14. The Esarhaddon Stele from Zincirli, ca. 670 B.C.E., discovered in 1888 in Zincirli Höyük by Felix von Luschan and Robert Koldewey, and now at the Pergamon Museum in Berlin. This is a victory stele of dolerite. It commemorates the King of Assyria's return from Egypt, after he defeated Pharaoh Taharqa in the year 671. Esarhaddon's army had previously been repulsed from northern Egypt by Taharqa's army in 674.



Fig. 15. Enlarged detail of the Esarhaddon Stele. The photograph in its entirety can be found at [https://commons.wikimedia.org/wiki/File:Asarhadon\\_Berl%C3%ADn\\_01.JPG](https://commons.wikimedia.org/wiki/File:Asarhadon_Berl%C3%ADn_01.JPG)

The Pleiades are part of the Taurus constellation (Sumerian  $GU_4.AN.NA$  'the Bull of Heaven'). In ancient Mesopotamia, the Pleiades (figs. 14-20) can even stand for Taurus, as a *pars pro toto*. Metonymically, the Pleiades could replace Taurus: in the Mesopotamian Zodiac the Pleiades used to replace Taurus<sup>87</sup>. (Corresponding to the Sumerian name of the constellation,  $MUL^2.MUL$ , literally 'star [classifier], star', i.e., 'star'

<sup>87</sup> VERDERAME, "Pleiades in Ancient Mesopotamia", 110.

*par excellence*, the (only rarely occurring) Akkadian name was *zappu*, i.e., ‘bristle’<sup>88</sup>, which “relates this group of stars with the mane of the Taurus constellation”<sup>89</sup>).

Correspondingly to the rise of the Pleiades being on the first of the month of *Ayā-ru*, the month whose Sumerian name GU<sub>4</sub>.SĪ.SÁ is related to the ox (cf. *taurus* ‘ox, bull’), consider that still at present, in the Zodiac year (of Mesopotamian derivation), the first day of the second month, i.e., the inception of the Taurus sign, is on April the 21st. Therefore, it is not Rome’s Seven Hills alone that correspond to the seven Pleiades. Even the calendar day traditionally associated with the founding of Rome is related to the Pleiades. That date, from that perspective, takes on a powerful symbolic, sacral, and astronomical value, with considerable cultural depth. Taken together, Rome’s Seven Hills within the Servian Wall (which may have been intended precisely to enclose the Seven Hills), and the rise of the Pleiades<sup>90</sup> on the day of the founding

<sup>88</sup> VERDERAME, “Pleiades in Ancient Mesopotamia”, p. 110, col. 1, cites for this F. GÖSSMANN, *Planetarium Babylonicum, oder die sumerisch-babylonischen Stern-Namen*, Rome: Papstl. Bibelinstituts, 1950: no. 279; G.E. KURTIK, *Звездное небо древней Месопотамии* [*The Star Heaven of Ancient Mesopotamia*], St. Petersburg: Aletheia, 2007: m35

<sup>89</sup> VERDERAME, “Pleiades in Ancient Mesopotamia”, p. 110, col. 1.

<sup>90</sup> The rise of the Pleiades has been used for reckoning seasonal transition also, for example, by Bantu people, at the very least ones in East Africa who are speakers of Swahili. In Swahili, the verb *lima* denotes ‘hoe, cultivate or work land (used of the native mode of cultivation, and nowadays of ploughing also)’. A corradical of that verb, the Swahili noun *Kilimia*, denotes “the Pleiades (constellation)”, and there is a proverb about the Pleiades: “*Kilimia kikizama kwa jua huzuka kwa mvua, kikizama kwa mvua huzuka kwa jua*, when the Pleiades set in sun (sunny weather) they rise in rain, when they set in rain they rise in sun. Used of the time to begin cultivating”. These quotations are from p. 246, s.v. *Lima*, in *A Standard Swahili-English Dictionary*, by the former Inter-territorial Language Committee of the East African Dependencies under the direction of the late FREDERICK JOHNSON, Oxford: Oxford University Press, 1939, reprinted in 1978.

The Swahili noun *thurea* denotes both “a chandelier” and “the Pleiades” (*ibid.*, p. 465, s.v. *Thurea*), for which Frederick Johnson’s dictionary indicates an Arabic etymon, spelled with the four letters *th, r, y*, and *alif*, i.e., the word is *thuriya*. In fact, Arabic does have, still in current use, the noun *[u]riyya*, ‘chandelier’. A chandelier makes sense as a simile for the stars of the Pleiades, as it is a especially conspicuous star cluster.

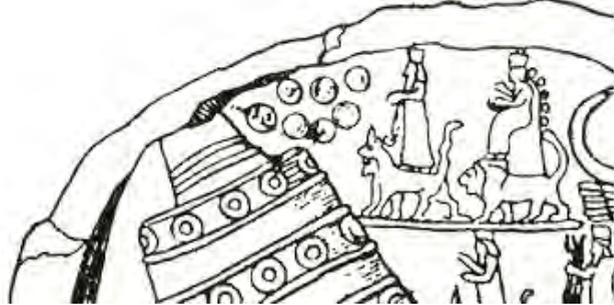
Let us turn to the Pleiades in the native cultures of Oceania. The following is quoted from Meredith Osmond, “Navigation and the Heavens”, being Chapter 6 in *The Lexicon of Proto Oceanic: The Culture and Environment of Ancestral Oceanic Society*, Vol. 2: *The Physical Environment*, by MALCOLM ROSS, ANDREW PAWLEY and MEREDITH OSMOND. ANU Press, Canberra: Australian National University, 2007, pp. 155–191 (<https://www.jstor.org/stable/j.ctt24hfk.13>).

Osmond wrote: “The Pleiades, or Seven Sisters, are a group of stars of moderate brightness which, because of their number and closeness to each other, form a small bright patch in the sky. Makemson believes that the Polynesians carried the Pleiades year with them into the Pacific from the ancient homeland of Asia, although she offers no specific evidence for this (1941:76). However it is the case that until recent times the Pleiades served as significant calendar stars throughout the Oceanic world, their reappearance each year marking the beginning of the annual seasonal cycle. In a number of languages of the north

of Rome, make it unlikely that we are faced with mere coincidence.



**Figs. 16, 17 and 18. The seven circles in front of the top of the King's hat, in this detail of the Esarhaddon Stele from Zincirli, are the Pleiades (Verderame surrounded them with the red contour of an ellipse)<sup>91</sup>.**



coast of New Guinea (Gedaged *baŋas* Biliu *barahas*, Takia *baras*) the stars are thought of as young unmarried women, associated with health and fertility rituals. When the constellation reappears in mid-June, it is time to prepare the fields for planting yams. Speakers of Muyuw, a Papuan Tip language, are supposed to plant their yams by *Gumeaw*, the Pleiades (Damon 1990:36). Åkerblom reports that the Polynesian year begins in Tahiti when the Pleiades rise on the eastern horizon in the evening (late November). But in Pukapuka, Mangareva, Marquesas and parts of New Zealand the seasonal cycle begins when the Pleiades appear on the eastern horizon shortly before sunrise (about the end of May) (ÅKERBLOM 1968:97). Teuira Henry in 1928 described the Tahitian year as consisting of two seasons, *matari-i-nia* 'Pleiades above', the forerunners of the season of plenty, and *matari-i-raro*, 'Pleiades below', the season of scarcity (quoted in Makemson 1941:92). A Maori term for the constellation is *ao kai* 'season of food' (Makemson 1941:200). Kiribati also recognizes two seasons, one marked by the appearance of the Pleiades, the other by Antares (Grimble 1972:223)".

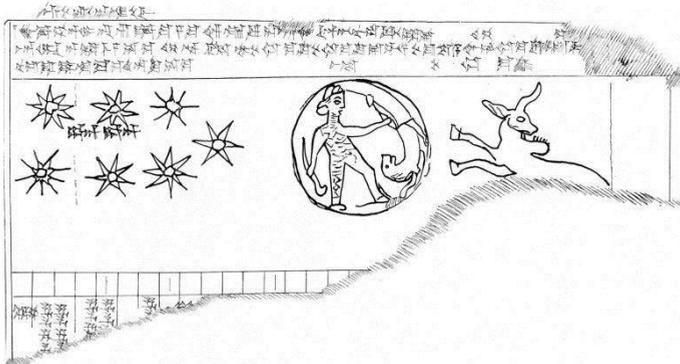
Osmond was citing (in alphabetical order): KJELL Åkerblom, *Astronomy and Navigation in Polynesia and Micronesia* (Monograph Series, 14), Stockholm: The Ethnographical Museum, 1968; F.H. DAMON, *From Muyuw to the Trobriands*, Tucson: University of Arizona Press, 1990; ROSEMARY GRIMBLE, *Migrations, Myth and Magic from the Gilbert Islands: Early Writings of Sir Arthur Grimble*, London: Routledge and Kegan Paul, 1972; and MAUD M. MAKEMSON, *The Morning Star Rises: An Account of Polynesian Astronomy*, New Haven, Connecticut: Yale University Press, 1941 (which is a classic).

<sup>91</sup> VERDERAME, "Pleiades in Ancient Mesopotamia", 114, col. 2



**Fig. 19. Old Babylonian terracotta plaque (VA 5392) showing Gilgameš and Enkidu killing the Bull of Heaven, apparently the same as the constellation Taurus, from the Gilgamesh Epic’s episode in which “the goddess Inanna/Ištar makes the gigantic bull come down from the sky to punish Gilgameš”<sup>92</sup>.**

Thus, to her ancient inhabitants, Rome was doubly linked to the constellations of the sky: it would have been reassuring to think of the Urbs, the city that was more and more insistently, throughout Roman history, referred to as “the eternal city”, as being a reflection of the eternal heaven with its eternal constellations. The Pleiades are the most obviously visible constellation, and they are eminently related to the cycle of the calendar, and to the measurement of time on a year to year basis.



**Fig. 20. The seven stars of the Pleiades drawn on a cuneiform tablet from Seleucid times (VAT 7851)<sup>93</sup>.**

<sup>92</sup> VERDERAME, “Pleiades in Ancient Mesopotamia”, 110, col. 1, citing pp. 47–54, 166–175 in A.R. GEORGE, *The Babylonian Gilgamesh Epic, I–II*, Oxford: Oxford University Press, 2003.

<sup>93</sup> “In ancient Mesopotamia seven is a symbolical number, expressing perfection and completeness, thus several groups of beings are counted as seven in number, starting from the seven main gods of the

5. *The Motif of a City's Seven Hills: Not Rome's Alone*

## 5.1. Jonah's Underwater Sightseeing, and Jerusalem Standing on Seven Hills

In the early medieval rabbinic homiletic work *Pirke de-Rabbi Eliezer*<sup>94</sup>, apparently written by just one author in the eighth century in the Land of Israel or some nearby country, one comes across the following tale<sup>95</sup> about Jonah, and within it, the application to Jerusalem of the motif of a city standing on seven hills.

“And the Lord had prepared a great fish to swallow up Jonah” (*ibid.* {i.e. *Jonah* 1, verse} 17). Rabbi Tarphon said: That fish was specially appointed from the six days of Creation to swallow up Jonah, as it is said, “And the Lord had prepared a great fish to swallow up Jonah” (*ibid.*). He entered its mouth just as a man enters the great synagogue, and he stood (therein). The two eyes of the fish were like windows of glass giving light to Jonah. Rabbi Meir said: One pearl was suspended inside the belly of the fish and it gave illumination to Jonah, like this sun which shines with its might at noon; and it showed to Jonah all that was in the sea and in the depths, as it is said, “Light is sown for the righteous” (Ps. xcvi. 11).

The fish said to Jonah, Dost thou not know that my day had arrived to be devoured in the midst of Leviathan's mouth? Jonah replied, Take me beside it, and I will deliver thee and myself from its mouth. It brought him next to the Leviathan. (Jonah) said to the Leviathan, On thy account have I descended to see thy abode in the sea, for, moreover, in the future will I descend and put a rope in thy tongue, {thus recycling wording from *Job* 40:25 of the Hebrew Bible, = *Job* 41:1 of the Revised Version} and I will bring thee up and prepare thee for the great feast of the righteous. {At the latter-day banquet of the righteous, these will be served the flesh of the Leviathan and of the Behemoth; cf. *Babylonian Talmud*, *Bava Batra* 74a, *Hagigah* 14a; and *Matthew* 26:29.} (Jonah) showed it the seal of our father Abraham {i.e., Jonah shows the Leviathan his circumcised *membrum virile*, just as according to homiletics, Joseph,

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pantheon, the seven mother goddesses, the seven brothers of Ištar, etc. [...] Among these heptads, the Pleiades are identified in first instance with the seven major gods of the pantheon, namely the three main gods An, Enlil, En ki/Ea, and the three astral gods (moon, sun, Venus), plus a seventh god, often the mother goddess Nin-hursağa or the Netherworld goddess Ereškigal. These are referred to in the expression “the seven great gods” identifying the Pleiades in several references [which include] the Astrolabe B and the MUL.APIN” (VERDERAME, “Pleiades in Ancient Mesopotamia”, 110, col. 2).

<sup>94</sup> *Pirḳê de Rabbi Eliezer (The Chapters of Rabbi Eliezer the Great) According to the Text of the Manuscript Belonging to Abraham Epstein of Vienna Translated and Annotated with Introduction and Indices* by Gerald Friedlander; London: Kegan Paul, Trench, Trubner & Co. Ltd., 1916, and New York: The Bloch Publishing Company, 1916.

<sup>95</sup> Friedlander's edition of *Pirḳê de Rabbi Eliezer*, pp. 69–71 (with Nissan's comment in braces).

having revealed to his brothers that he is Joseph<sup>96</sup>, is believed by them once he shows them that he is circumcised –but in the case of Jonah and the Leviathan, perhaps, just perhaps humour was intended, even though, after all, what Jonah is doing is like a policeman or other public officer showing his card as proof of his authority} (saying), Look at the Covenant (seal), and Leviathan saw it and fled before Jonah a distance of two days' journey.

That was because Jonah showed proof that he was quite well connected, owing to the divine Covenant with Abraham. The Leviathan is not fleeing from Jonah's display the way right-thinking people on a train would immediately leave their compartment if a fellow traveller uncovered himself, turning out to be a perverted exhibitionist<sup>97</sup>.

<sup>96</sup> Generally speaking, the episode of Joseph revealing his identity to his brothers in Egypt is perhaps the best-known instance of the recognition scene. The latter subject was discussed by PASCAL BOULHOL, *Anagnorismos* [transliterated]: *la scène de reconnaissance dans l'hagiographie antique et médiévale*, Aix-en-Provence: Publications de l'Université de Provence, 1996.

<sup>97</sup> One cannot overstress the different cultural value of exposing a penis to somebody else in the text we have considered about Jonah (while definitely not in real life in the denominational culture that produced it), as opposed to –and it is this that colours our expected present-day reception of the text– uncovering oneself indecently as being ghastily antisocial in present-day Western sensibilities. While not in England in 1753: at the time the British government passed, and then, fearing the electorate, repealed in December the “Jew Bill” which would have enabled giving naturalisation rights even to residing Jews provided they had enough assets, supporters of the law were reviled in public situations and in the press. The following was signalled on p. 253 in: DAVID S. KATZ, *The Jews in the History of England, 1485–1850*, Oxford: Clarendon Press, 1994, paperback 1996. In a letter of Horace Walpole to his friend Richard Bentley, dated 9 July 1754 (H. Walpole, *Correspondence*, ed. W.S. Lewis et al., London, 1937–1983, Vol. 35, p. 178), he claimed: “The great cry against [Robert] Nugent at Bristol was for having voted for the Jew Bill: one old woman said, ‘What, must we be represented by a Jew and an Irishman?’ He replied, with great quickness, ‘My good dame, if you will step aside with me into a corner, I will show you that I am *not* a Jew, and I am an Irishman””.

Nugent's audience must have found this repartee uproarious, as in mid-18th century England, socially acceptable humour was often rude. The correspondence of Horace Walpole (b. 1717, d. 1797) was published in 48 volumes (1937–1983) under the general editorship of WILMARTH SHELDON LEWIS (1895–1979). See *The Yale Edition of Horace Walpole's Correspondence*. Vols. 1–2, with the Rev. William Cole. Vols. 3–8, *Madame du Deffand, Mlle Sanadon and Wiart*. Vols. 9–10, *Montagu*. Vols. 11–12, *Mary and Agnes Berry and Miss Seton*. Vols. 13–14, *Thomas Gray, Richard West and Thomas Ashton*. Vol. 15 *Sir David Dalrymple, Conyers Middleton, the Earl of Buchan, Daniel Lysons, Samuel Lysons, William Robertson, Robert Henrym, William Roscoe, James Edwards, William Beloe and Robert Nares*. Vol. 16, *Thomas Chatterton, Michael Lort, John Pinkerton, John Fenn and Mrs. Fenn, William Bewley, Nathaniel Hillier and Henry Zouch*. Vols. 17–27, *Sir Horace Mann and Sir Horace Mann the Younger*. Vols. 28–29, with the Rev. WILLIAM MASON. Vol. 30, *George Selwyn, Lord Lincoln, Sir Charles Hanbury Williams, Henry Fox, Richard Edcumbe*. Vol. 31, *Lady Browne, Lady George Lennox, Lady Mary Coke, Anne Pitt, Lady Hervey, Lady Suffolk, Mary Hamilton (Mrs. John Dickenson)*. Vols. 32–34, *The Countess of Upper Ossory*. Vol. 35, *John Chute, Richard Bentley, The Earl of Strafford, Sir William Hamilton, The Earl and Countess Harcourt, George Hardinge*.

For that matter (but this is not what happens in the text at hand about Jonah), in ancient Rome, carrying (or exhibiting) a human penis (an effigy, or an actual one, but somebody else's) was ascribed magical virtues. The noun is *fascinum*. The transitive verb *fascino* for 'to cast a spell or the evil eye upon [so and so] occurs in Virgil (*Eclogue* 3.103) and Catullus (7). A *fascinator* is somebody casting spells or the evil eye, in Church Latin. The Latin noun *fascinum* denotes 'evil eye', 'bewitching, spell' in Pliny the Elder, but '*membrum virile* as a protection against witchcraft or the evil eye' as occurring in Horace and others. Fascinus was mentioned by Pliny the Elder, 28.39, as being a god protecting against the evil eye, and bestowing prosperity:

If we believe this, we should also hold that the due course of action, if a stranger arrives or a sleeping infant is looked upon, is that its nurse should spit on it three times. However, Fascinus too gives due divine protection to the child, guardian similarly of generals as he is, not just of infants. In Roman religion the cult of this god is maintained by the Vestal Virgins. He also protects the chariots of generals from envy [*invidia*] as they parade in triumph, hanging underneath them, like a doctor. A similar spoken medicine bids the generals look behind them, so that Fortune, the executioner of fame, may be propitiated behind him<sup>98</sup>.

In contrast, Jonah exposing himself to the Leviathan is not exercising magic (even though he is imagined to be within a wondrous submarine environment); rather, he informs the Leviathan that Jonah himself is a member of Abraham's Covenant, and therefore the Leviathan can expect divine punishment in case it devours this man. The Leviathan and the underwater environment are wondrous. Arguably the point of the passage is that the wondrous realm is mindful of the Covenant, even though the Gentiles are often not. The Leviathan does understand that Jonah, because of his faith allegiance, is well-connected High Above, and this must matter very much in the wondrous realm.

Let us continue with the quotation from Friedlander's translation of *Pirque de-Rabbi Eliezer*:

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Vol. 36, *Walpole Family*. Vol. 37–39, *Henry Seymour Conway, Lady Ailesbury, Lord and Lady Hertford, Mrs. Harris, Lord Beauchamp, Henrietta Seymour Conway, Lord Henry and Lord Hugh Seymour*. Vols. 40–42, *Miscellaneous Correspondence*. Vol. 43, *Additions and Corrections, Subject Index to Illustrations, Index of Horace Walpole's Correspondents, Chronological List of Letters*. Vols. 44–48, *Complete Index*. New Haven, Connecticut: Yale University Press, 1937–1983.

<sup>98</sup> This translation is from p. 225 in: Daniel Ogden, *Magic, Witchcraft, and Ghosts in the Greek and Roman Worlds: A Sourcebook*, Oxford: Oxford University Press, 2002. On that same page, Ogden explains: "*Fascinus* was the phallus-deity, embodied in phallus effigies, and he had the power to avert the action of the evil eye. For the protective power of the phallus, compare the "herms" of Attica and the phallic god Priapus, whom Horace portrays as averting the witches Canidia and Sagana (91). Pliny refers to the custom of hanging phallus effigies around the necks of babies".

(Jonah) said to it (*i.e.* the fish). Behold, I have saved thee from the mouth of Leviathan, show me what is in the sea and in the depths. {What follows seizes the opportunity to have Jonah sightseeing the way the mythical tradition about Alexander the Great has the latter sightseeing underwater.} It showed him the great river of the waters of the Ocean {conceived of as being the water supposed to surround the landmass}, as it is said, “The deep was round about me” (Jonah ii. 5), and it showed him the paths of the Reed Sea through which Israel passed {during the Exodus}, as it is said, “The reeds were wrapped about my head” (*ibid.*); and it showed him the place whence the waves of the sea and its billows flow, as it is said, “All thy waves and thy billows passed over me” (*ibid.* 3); and it showed him the pillars of the earth in its foundations, as it is said, “The earth with her bars for the world were by me” (*ibid.* 6) {cf. *Psalms* 104:5 and *Babylonian Talmud*, *Hagigah* 12b}; and it showed him the lowest Sheol, as it is said, “Yet hast thou brought up my life from destruction, O Lord, my God” (*ibid.*); and it showed him Gehinnom, as it is said, “Out of the belly of Sheol I cried, and thou didst hear my voice” (*ibid.* 2); and it showed him (what was) beneath the Temple of God, as it is said, “(I went down) to the bottom of the mountains (*ibid.* 6). {*I.e.*, the roots of Jerusalem’s seven mountains. See below.} Hence we may learn that Jerusalem stands upon seven (hills), {an instance of the widespread motif of a city’s seven hills: see below,} and he saw there the Eben Shethiyah (Foundation Stone {traditionally located in what is now the Dome of the Rock on the Temple Mount. It was called Foundation Stone because the whole world was founded thereon, according to the *Jerusalem Talmud*, tractate *Yoma* 5:4, 42c; see also in the *Babylonian Talmud*, tractates *Yoma* 54b and *Sanhedrin* 26b}) fixed in the depths. He saw there the sons of Korah standing and praying over it {as traditionally, the sons of the rebel Korah repented at the time of their father’s rebellion against Moses, so their punishment in Hell was more lenient than for the rest, and they obtained there a higher place, whence they could pray}. They said to Jonah, Behold thou dost stand beneath the Temple of God, pray and thou wilt be answered. Forthwith Jonah said to the fish, Stand in the place where thou art standing, because I wish to pray. {...}.

Arguably, the idea is that as the Leviathan (unlike humans or ordinary animals) is a wondrous creature, the Leviathan would recognise the grand scheme of things, in which being Jewish ought to afford providential protection. “This Leviathan which Thou hast created in order to play with him” (*Psalms* 104:26) gave rise to the homiletic idea that every day, the Leviathan is played with by the Creator, until the Latter Day, when the Leviathan’s flesh will be served at a banquet for the righteous ones. “Rab Judah said in the name of Rab: All that the Holy One, blessed be He, created in his world he created male and female. Likewise, Leviathan the slant serpent and Leviathan the tortuous serpent he created male and female; and had they mated with one another they would have destroyed the whole world. {With the multitudes of their progeny} What [then] did the Holy One,

blessed be He, do? He castrated the male and killed the female preserving it in salt for the righteous in the world to come” (*Babylonian Talmud*, tractate *Bava Batra*, 74b, as per the Soncino English translation<sup>99</sup>, their brackets, our braces). *Pirque de-Rabbi Eliezer* has the fish tell Jonah (who chats with his passenger the way a taxi driver would do) that he, the fish, is scheduled to be eaten by the Leviathan within a short time. Jonah, however, knows how to warn the Leviathan to have nothing to do with him, as he is entitled to divine protection. One cannot assume that the author intended humour, but perhaps he did<sup>100</sup>. Jonah

<sup>99</sup> The English text is quoted from the now standard Soncino English translation. ISIDORE EPSTEIN (ed.), *The Babylonian Talmud*, translated into English with Notes, Glossary and Indices. London: The Soncino Press, 1935–1948. 35 volume edition: *Seder Nezikin* (8 vols., 1st edn., 1935, repr. 1952, 1956); *Seder Nashim* (8 vols., 1st edn. 1937, repr. 1956); *Seder Mo'ed* (8 vols., 1st edn., 1938; repr. 1956); *Seder Tohoroth* (2 vols., 1st edn. 1948, repr. 1960); *Seder Zera'im* (2 vols., 1st edn., 1948, repr. 1959); *Seder Kodashim* (6 vols., 1st edn. 1948, repr. 1960); *Index Volume* (1952). 18 volume edition: *Seder Nezikin* (4 vols., 1961); *Seder Nashim* (4 vols., 1961); *Seder Mo'ed* (4 vols., 1961); *Seder Tohoroth* (1 vol., 1961); *Seder Zera'im* (1 vol., 1961); *Seder Kodashim* (3 vols., 1961); *Index Volume* (1961).

<sup>100</sup> It has been suggested that humour was intended, in a particular passage in a phrasebook, by Nathan Hanover. The latter was among the main Jewish chroniclers of the combined Cossack, Ukrainian peasant, and Tatar upheaval that starting in 1648, devastated the Jews and Poles of the Ukraine (at the time, a part of the Commonwealth of Poland and Lithuania). Massacres and being taken into Tatar slavery were accompanied by a huge exodus of refugees, who fled in disparate directions. See ADAM TELLER, *Rescue the Surviving Souls: The Great Jewish Refugee Crisis of the Seventeenth Century*, Princeton, NJ: Princeton University Press, 2020. Hanover's heart-breaking chronicle is *Yaven Metsulah*, i.e., *The Mud at the Seafloor*. Hanover also published in Prague in 1660 another book, being “[a] quadrilingual dictionary called *Safah Berurah* [i.e., *Clear Tongue*], it contained literally hundreds of words, giving their translations in Hebrew, German, Italian, and Latin, thus facilitating communication between the Polish Jewish refugees and the people they met in two of the major environments in which they found themselves: the Italian peninsula [but especially in northern, continental, Italy!] and the German lands” (TELLER, p. 225). In Ch. 16 of *Safah Berurah*, Hanover “moved into phrasebook mode, breaking down entire conversations into small sections. It was clearly aimed at those actually on the road – refugees, merchants, and others – as it enabled them to converse with other travelers. Even if these were not precise records of actual conversations, Hanover, a well-traveled refugee himself, would have done his best to make them realistic and thus useful to his readers. [...] After a section on greetings [...] Hanover began a conversation in which he inserted himself [...] The setting was that of the road and Hanover was trying to establish whether his traveling companion was Jewish. Though identifying the people one was traveling with was a serious issue, sometimes even a matter of life or death, the author treated it lightly, almost tongue-in-cheek” (TELLER, pp. 225–226). TELLER, on p. 226, quotes this passage, in his own translation (his brackets, my braces): “Where are you from? *From Prague*. Do you know Hebrew? *I don't know/I do know*. Are you Jewish? *Yes*. How can I tell? *I am circumcised*. Muslims are circumcised, too. *Yes, but they don't do the “uncovering”*. {Endnote 15 on p. 345 states this is “the removal of a secondary membrane under the foreskin”. But it is actually difficult to tell the difference. In both cases, the glans is exposed.} Show me [then]! *I am embarrassed to. It; 's written in the Torah*. What's written in the Torah? *Do not expose your nakedness!*” Teller continues: “After that humorous moment, Hanover moved on without a break to a quite different conversation in which things took a

shows proof that he is quite well connected, because of the divine Covenant with Abraham.

Let us go back to a passage we considered, from *Pirque de-Rabbi Eliezer* in Gerald Friedlander's translation (1916):

“And the Lord had prepared a great fish to swallow up Jonah” (*ibid.* {i.e. *Jonah* 1, verse} 17). Rabbi Tarphon said: That fish was specially appointed from the six days of Creation to swallow up Jonah, as it is said, “And the Lord had prepared a great fish to swallow up Jonah” (*ibid.*). He entered its mouth just as a man enters the great synagogue, and he stood (therein). The two eyes of the fish were like windows of glass giving light to Jonah. Rabbi Meir said: One pearl was suspended

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very dark turn: [...] This very disturbing conversation between Hanover, the refugee, and a man who wanted to rob and even kill him was telling in a number of ways”.

<http://en.wikipedia.org/wiki/Circumcision> points out: “An estimated one-third of males worldwide are circumcised. Circumcision is most common among Muslims and Jews (among whom it is near-universal for religious reasons), and in the United States, parts of Southeast Asia, and Africa. It is relatively rare for non-religious reasons in Europe, Latin America, parts of Southern Africa, and most of Asia. [...] It is an established practice in Islam, Coptic Christianity, and the Ethiopian Orthodox Church. [...] Approximately 37% to 39% of males worldwide are circumcised, about half for religious or cultural reasons. [...] Prevalence in the United States and Canada is estimated at 75% and 30% respectively.”

Shortly after the end of the Second World War, Mario Della Torre moved from Livorno (Leghorn), Italy, to Israel, where he changed his name into *Meir Migdali*. He is the author of sonnets in *bagitto*, i.e., in the Judaeo-Livornese dialect. In one sonnet (sonnet 24 in MEIR MIGDALI, *Trenta sonetti giudaico-livornesi*, Natania, Israel: published by the author, 1990), this poem being in standard Italian, he relates an apparently real anecdote about a Palombo, a Jewish lawyer of Livorno, who during the German occupation managed to save himself. Palombo. Had sought refuge in a small town, but was convoked to the local Questura (the police headquarters). The *commissario* (chief inspector) accused him of being Jewish, which Palombo denied impassively. The official was interrogating him in view of sending him to his doom. The chief inspector stated he may let himself be convinced by the lawyer's arguments, but he requested to check whether he was circumcised. The official said *circoscizione* ‘circumscription’ instead of *circoncisione*, and the lawyer realised that his interlocutor was ignorant about the subject, so he referred to it as “that huge mutilation”. He then exposed himself to the official, who wrongly concluded that the man was not circumcised. The situation is dramatic, the context is tragic, but the poem is humorous: “L'avvocato Palombo un brutto giorno / fu chiamato in Questura, in un paese / nel quale era ‘sfollato’ da Livorno. / Il Commissario, con tono cortese, // gli fa: ‘Noi lo sappiamo con certezza: / lei è giudeo!’ L'avvocato, impassibile, / con la più grande calma e sicurezza / negò tutto. E quell'altro: ‘Già, è possibile // che tutte queste prove che ha portato / mi avrebbero convinto; ma però / c'è una cosa: la cir. circoscizione!’ // ‘Che dice!?!? Quella gran mutilazione?? / Ma lei mi salva!! Guardi qui’ e calò / i calzoni. E così fu rilasciato.” Quoted in full in note 26 on p. 136 in: MARIA CARMELA D'ANGELO, “Scrittori giudaico-livornesi. Testimoni letterari di un'integrazione complessa”, in the proceedings of the international conference *Ebrei migranti: le voci della diaspora (Istanbul, 23–27 giugno 2010)*, edited by RANIERO SPEELMAN, MONICA JANSEN and SILVIA GAIGA (Italianistica Ultraiectina: Studies in Italian Language and Culture, 7), Utrecht: Igitur Publishing, 2012, 139–138.

inside the belly of the fish and it gave illumination to Jonah, like this sun which shines with its might at noon; and it showed to Jonah all that was in the sea and in the depths, as it is said, “Light is sown for the righteous” (Ps. xcvi. 11).

Footnote 8 on p. 69 in Friedlander’s English translation of *Pirque de-Rabbi Eliezer* comments as follows about “windows of glass”: “Our MS. reads “*ampumeth*”. According to Jastrow, {p. 78, col. 1, s.v.}<sup>101</sup>, this stands for *ôphsejanioth*, “glass windows”. This represents *ôpυανός* (obsidian), a stone used as glass, see *infra*, p. 330. See ‘Arukh, ed. Kohut<sup>102</sup>, i. 24b. Does the “Great Synagogue” refer to the famous Synagogue of Alexandria?”

Joseph Yahalom<sup>103</sup> rather thinks of synagogues in the Galilee. It must be said that it was too late for the Great Synagogue in Alexandria of late antiquity (before the repression of both Paganism and Judaism) to appear in *Pirque de-Rabbi Eliezer*, which is apparently early medieval, even though it is pseudepigraphically ascribed to Eliezer ben Hyrcanus (Hurqanos), a rabbi from late antiquity, a hagiographical tale about whom (of talmudic derivation) appears at the beginning.

Ilana Pardes suggests<sup>104</sup> that something that the New York-born Herman Melville

<sup>101</sup> MARCUS JASTROW, *Dictionary of the Targumim, the Talmud Babli and Yerushalmi, and the Midrashic Literature* (2 vols.), London: Luzac & Co.; New York: G.P. Putnam’s Sons; Leipzig: Trübner & Co., 1903; often reprinted by various publishers; e.g. Peabody, MA: Hendrickson Publ., 2005 (in 1 vol. of 1736 pp.). Marcus Jastrow’s dictionary is also accessible online; its Vol. 1 is at <http://www.etana.org/sites/default/files/coretexts/14906.pdf> whereas its Vol. 2 can be found at <http://www.etana.org/sites/default/files/coretexts/14499.pdf> Moreover, one can find Jastrow’s *Dictionary* at <http://www.tyndalearchive.com/tabs/jastrow/> arranged for alphabetical access online at Tyndale House.

<sup>102</sup> A. [H.Y.] KOHUT, *Aruch completum: sive, Lexicon, vocabula et res, quae in libris Targumicis, Talmudicis et Midraschicis continentur* (in Hebrew: ‘*Arukh ha-shalem*) by NATHAN BEN YEḤIEL [1031–1106], MUSSAF HE’ARUKH BY BENJAMIN MUSSAFIA [1606–1675], 1878–1892, Vienna, 1926 (repr.). Reprinted with S. KRAUSS’s supplement, *Tosfot he-‘Arukh ha-shalem*, Vienna, 1937; Pardes, New York, 1955.

The lexicographer of early rabbinic literature, Alexander Kohut (=Ḥanokh Yehudah Kohut, 1878–1892), was over-Persianising in his etymologies, and his multi-volume dictionary is not so easy to browse (you are unlikely to keep all those volumes on your desk, and need to go to a Jewish studies library in order to consult them). Another lexicographer, Marcus Jastrow (1829–1903), is most often accessed now because his dictionary is in English, and it is quite useful indeed, but his not highly regarded etymologies are usually over-Semiticising, i.e., he is too keen to find the etymon within Semitic languages, in particular Hebrew and Aramaic.

<sup>103</sup> JOSEPH YAHALOM, *Poetry and Society in Jewish Galilee in Late Antiquity* [in Hebrew], Tel-Aviv: Hakibbutz Hameuchad, 1999, 130.

<sup>104</sup> On p. 136. in ILANA PARDES, “Remapping Jonah’s Voyage: Melville’s *Moby-Dick* and Kitto’s *Cyclopedia of Biblical Literature*”, *Comparative Literature*, 57 (2005) 135–157.

wrote in his 1851 novel *Moby-Dick* reflected lore from the *Pirque de-Rabbi Eliezer* account of Jonah inside the fish. She suggests that Melville was aware of the idea that Jonah saw the submarine environment through the window-like eyes of the fish. The following is quoted from her paper<sup>105</sup>:

In constructing his grand interpretation of the Book of Jonah in *Moby-Dick*, Melville, true to his hermeneutic position, responds to diverse readings of Jonah: Calvin's commentaries on Jonah, popular sermons of a Calvinistic bent (Mapple's sermon is modeled on this genre), Defoe's *Robinson Crusoe* (Crusoe is regarded as a sinful Jonah from the very opening of the book [...]), Pierre Bayle's account in *Dictionnaire historique et critique* (1697), and John Eadie's entry on "Jonah" in Kitto's *Cyclopedia of Biblical Literature* (1845), among them. Less traceable Jonahs also peep out at different junctures. Ishmael's ruminations about the possibility of painting Jonah's eye looking through the "bow window" eye of the whale in Captain Colnett's picture may be an allusion to the famous midrash on Jonah's sightseeing through the window-like eyes of the big fish while traveling in the deep. And one could conjecture, in light of Sterling Stucky's studies on Melville's exposure to African-American culture, that Melville was not unaware of Jonah's major role in African-American spirituals in his shaping of Pip as Jonah [...]

How could Melville possibly know about the Hebrew source? Pardes explains<sup>106</sup>: "This midrash appears in *Midrash Jonah* and in *Pirke de Rabbi Eliezer*, Chapter 10. It is quoted in Pierre Bayle's entry on Jonah in *Dictionnaire historique et critique*"<sup>107</sup>.

## 5.2. The International Spread of the Motif of a City's Seven Hills

Romanisation in the Roman Empire, and the prestige of Rome, at a time when Rome was famously understood to be a city built on seven hills, arguably gave currency to the latter motif. For example, it was applied to Constantinople, as well as to Jerusalem. And yet, we cannot be totally sure about the motif itself originating in Rome: we have seen that the seven stars of the Pleiades may have motivated the plan of Rome's early walls. Likewise, as opposed to some religious cultures requiring members to pray facing a particular cardinal direction (south for Zoroastrians<sup>108</sup>; east for the Essenes and early Christianity, as well as the Nestorians even in China;

<sup>105</sup> PARDES, pp. 135–136.

<sup>106</sup> PARDES in fn. 1 to p. 136.

<sup>107</sup> References cited in the quotation from Pardes include JOHN KITTO, *A Cyclopedia of Biblical Literature*, Edinburgh: Adam and Charles Black, 1845; and PIERRE BAYLE, *The Dictionary Historical and Critical of Mr Peter Bayle, 1734–1738* (2nd edn., New York: Garland, 1984).

<sup>108</sup> As Ahriman invaded the universe from the north.

but north for the Mandaean<sup>109</sup> and other Gnostics, owing to the Gnosis viewing the God of the Old Testament negatively, as supposedly being the demiurge disloyal to Sophia<sup>110</sup>, we know of three other religious cultures requiring members to pray

<sup>109</sup> E.S. DROWER, *The Mandaean of Iraq and Iran*, Leiden: Brill, 1962, 18; cited on p. 219 in B.L. GORDON “Sacred Directions, Orientation, and the Top of the Map”, *History of Religions*, 10 (1971) 211–227. On a related subject, see Franz Landsberger, “The Sacred Direction in Synagogue and Church”, *Hebrew Union College Annual*, 28 (1957) 181–203.

“In his books on heresy Saint Augustine, who had once belonged to a western branch of the Manichaean sect, repeatedly criticizes their prayer direction, their following of the sun in its course with prayers (like the Mithraists), and their addressing prayers to the north on moonless nights” (Gordon, p. 220). According to Mani, the Tree of Life was in the north, and the Tree of Death in the south. “South also had a negative connotation elsewhere in the Indo-Iranian area, beyond the extent of the Manichees. The following account was written in the eleventh century: ‘The Hindus consider the south as foreboding evil. In no work of piety do they direct themselves southward or walk southward. The south occurs only in connection with impious acts’” (GORDON, 220, fn. 39; Gordon’s brackets; citing for the quotation p. 307 in Edward C. Sachau [b. 1845, d. 1930], translator from Arabic and editor of the Arabic original text, of *Tā’rīkh al-Hind* by Muḥammad ibn Aḥmad al-Bīrūnī [b. 973?, d. 1048], under the title *Alberuni’s India: An Account of the Religion, Philosophy, Literature, Geography, Chronology, Astronomy, Customs, Laws, and Astrology of India about A.D. 1030*, Trübner’s Oriental Series, English edition, London: Kegan Paul, Trench, Trübner, 1910. A previous edition in English is London: Trübner & Co., 1888. Reprints of the 1910 edition include Delhi: Chand, 1964; New Delhi: Oriental Reprint, distributed by Munshiram Manoharlal Publishers Pvt. Ltd., 1983; Delhi: Low Price Publications, 1989. A popular edition of the 1910 book was published in London by Kegan Paul in 1914).

<sup>110</sup> As for the churches being built with their choirs at the eastern end, beginning in the fifth century in Italy, this becoming the rule elsewhere as well, this eventually went out of favour. “In Mexico, at the western edge of Christendom, the Franciscans alone observed the rules of orientation throughout the sixteenth century. On the other hand, modern English Anglican churches are usually oriented. Although tradition plays little part in the alignment of modern Protestant churches, the expression ‘Ecclesiastical East’ is sometimes still used in reference to the altar end of the church, however the building itself may be aligned”, stated B.L. GORDON on p. 216 in “Sacred Directions, Orientation, and the Top of the Map”. “Among the Muslims, a special niche called the *mihrab* is built in a wall of the mosque so that the prayers of those facing it will be addressed toward Mecca. When Constantinople fell and the Muslims took over the oriented Hagia Sophia, they had to align their prayer niche and prayer mats askew of the axis of the building. ¶ Pagan Graeco-Roman temples were commonly aligned east-west, as is Stonehenge in Britain” (*ibid.*, p. 217). One also comes across confusion: for Muslims in lands north of Arabia but more or less at the same longitude, the direction of Mecca was south, and the Arabic word *qibla* ‘direction in which one has to face while praying’ was sometimes taken to denote ‘south’. “Indeed the *kiblah* was mistakenly associated with the southerly direction elsewhere: the *mihrab* in the great mosque at Córdoba erected in the eighth century, only shortly after the Muslims arrived in Spain, was built so that worshippers looked south instead of east toward Mecca, as they should. Syrian architects, accustomed in their homeland to finding the *kiblah* to the south, are thought to have been responsible for the error” (*ibid.*, p. 218).

facing their respective holy city: the Jews in the direction of Jerusalem (or, while in Jerusalem, in the direction of the Temple Mount), Muslims in the direction of Mecca, and, according to Livy, when pagan Romans were away from Rome, they would pray in the direction of the temple of Jupiter Capitoline in Rome<sup>111</sup>.

Let us comment about Jonah being given a sightseeing tour by the fish, “and it showed him (what was) beneath the Temple of God, as it is said, ‘(I went down) to the bottom of the mountains’ (*Jonah* 2:6). Hence we may learn that Jerusalem stands upon seven (hills)”. In fn. 6 on p. 71 of his edition of *Pirḳê de Rabbi Eliezer*, Gerald Friedlander states: “The roots of the seven mountains in Jerusalem whereon the Temple rested. The mountains are designated in the O.T. as follows: Mount Zion, Mount Moriah, The Holy Mount, The Mount of my Holy Beauty, The Mount of the House of the Lord, The Mount of the Lord of Hosts, and The Lofty Mount of the Mountains.” Cf. Rome’s *Septimontium*, the Seven Hills; old Constantinople was built on seven hills (*infra*, figs. 22-27), too, hence Istanbul’s present-day epithet *City on the Seven Hills* (Turkish *Yedi tepeli şehir*)<sup>112</sup>.

Also Croydon, London’s southernmost borough, comprises seven hills. So does, again in England, the city of Sheffield, and so does the southern town of Torquay, also in England. For that matter, the name for the inhabitants of Torquay is *Torquinians*<sup>113</sup>, patterned by analogy after *Tarquinians*, the name of a regal dynasty in early Roman history, or after

<sup>111</sup> “True, the notion of *kiblah* [i.e., Arabic *qibla*] was not uniquely Jewish, although it may have been of Jewish origin”, B.L. GORDON stated (before mentioning the Romans according to Livy) in fn. 8 on p. 213 in his “Sacred Directions, Orientation, and the Top of the Map”. But quite possibly, the Roman custom was independent of the Jewish custom.

Also consider correlation (rather than causal relation), so that A causes B and C rather than B causing C. GORDON stated on p. 215: “Among the augurs of pagan Italy, east was the direction most favorable to the revelation of mysteries (although, again, south was its rival). Livy, for instance, describes how the Roman augur ‘marked off the heavens by a line from east to west, designating as ‘right’ the regions to the south, as ‘left’ those to the north’”. In Semitic languages as well, the right side provides semantic motivation for ‘south’, and the left side provides semantic motivation for ‘north’. Hebrew *smol* (written *šm’l*) denotes ‘left’; Arabic *šimāl* (written *šm’l*) denotes ‘north’. Hebrew *yamin*, Arabic *yimna*, denote ‘right (side)’; Hebrew *teman*, Arabic *yaman*, denote ‘Yemen’. (Habakkuk’s vision has theophany come from *Teman*, the South, but Yemeni Jews have traditionally interpreted this as Yemen).

GORDON wrote on p. 215: “Linguistic evidence indicates that the easterly direction was fundamental in the world outlook of the pagan Indo-Europeans, the root of the words ‘north’ and ‘left’ and for the words ‘south’ and ‘right’ being often the same in Indo-European languages. As noted above, the early Semites were similarly oriented linguistically”.

<sup>112</sup> Cf. [http://en.wikipedia.org/wiki/Seven\\_hills\\_of\\_Istanbul](http://en.wikipedia.org/wiki/Seven_hills_of_Istanbul)

<sup>113</sup> That citizen-name is dated to around 1980 inside a list on p. 40 in: PHILIP SHAW, “Tone and Analogy in British Citizen Names”, *Orbis: Bulletin international de documentation linguistique* (Leuven/Louvain, Belgium), 35 (1988–1990 [1992]) 33–54.

*Tarquinians* for the inhabitants of the ancient Etruscan city of Tarquinia<sup>114</sup>. The English city of Bath, perched on the southern slopes of the Cotswolds, has a Roman past and is ringed by seven hills. In Scotland, the latter's capital, Edinburgh, has its own Seven Hills<sup>115</sup>, as does the town of Coatbridge. The seven hills motif also occurs for Armagh in Northern Ireland.

This pattern of there being a claim that a town has seven hills isn't rare<sup>116</sup>. Athens in Greece also has seven historical hills. Iași, in Romania, Moldavia's old capital before the Danubian Principalities were unified into the Old Kingdom of Romania, boasts of Iași's Seven Hills<sup>117</sup>. There also are the Seven Mountains of Bergen, in Norway<sup>118</sup>. The motif also occurs for Turku, in Finland; for Telšiai, in Lithuania; for Gorzów Wielkopolski, in Poland; for Russia's capital, Moscow<sup>119</sup>; for both Kiev and Lviv (Lwów) in the Ukraine; for Plovdiv in Bulgaria; for Spain's capital, Madrid; for Barcelona, Catalonia's regional capital, in Spain; for Cáceres, also in Spain; for Lisbon, Portugal's capital; for Cagliari, the regional capital of Sardinia, Italy; for Saint-Étienne, in France; for Brussels, Belgium's capital; for Nijmegen, in the Netherlands, and, in the same country, for the town, named accordingly, of Zevenbergen ("seven mountains"); for Prague, the Czech capital; for Budapest, Hungary's capital; for Kaposvár and for Veszprém, also in Hungary; for the town of Pula (Pola), in Croatia; and for Bamberg in Bavaria, Germany. Macao, the port city and former Portuguese colony in China, is described as being surrounded by seven hills. The capital of New York State, Albany, is claimed to stand on seven hills; that motif, in this case arguably of Roman derivation, befits Albany, as this is the town where the state Capitol stands. Saint Paul, Minnesota, and Cincinnati, Ohio,

<sup>114</sup> "Even the most exotic [derivatives, in Cleveland county] may appear in conversation, as in the example of *Hartlepudlian* [for 'inhabitant of Hartlepool'] given above or the remark 'My wife is a Torquinian' made to me in 1980 in a conversation about Torquay in Devon" (SHAW, *ibid.*, 42). "There is, however, another type of analogy which has no similarity to a conventional word-formation rule where the derivative is formed on the model of another derivative, regardless of the process involved. A model is all that is needed for this kind of analogy [...]. An extreme example is the extraordinary *Torquinian* based on *Tarquinian* with only the slightest provocation from (the spelling of) *Torquay*. Most commonly, however, this type of analogy is based on convergence, that is, a group of words with similar elements of meaning and common formal features [...]" (SHAW, *ibid.*, 48).

<sup>115</sup> See [http://en.wikipedia.org/wiki/Hills\\_of\\_Edinburgh](http://en.wikipedia.org/wiki/Hills_of_Edinburgh)

<sup>116</sup> See [http://en.wikipedia.org/wiki/List\\_of\\_cities\\_claimed\\_to\\_be\\_built\\_on\\_seven\\_hills](http://en.wikipedia.org/wiki/List_of_cities_claimed_to_be_built_on_seven_hills)

<sup>117</sup> See on these [http://en.wikipedia.org/wiki/Seven\\_hills\\_of\\_Ia%C5%9Fi](http://en.wikipedia.org/wiki/Seven_hills_of_Ia%C5%9Fi)

<sup>118</sup> For which see [http://en.wikipedia.org/wiki/Seven\\_Mountains,\\_Bergen](http://en.wikipedia.org/wiki/Seven_Mountains,_Bergen)

<sup>119</sup> See [http://en.wikipedia.org/wiki/Seven\\_hills\\_of\\_Moscow](http://en.wikipedia.org/wiki/Seven_hills_of_Moscow)

are two cases in point; both cities are state capitals. Like Rome, they have a Capitol. Note in particular that Cincinnatus as being a model of civic virtue was conspicuous in the 19th-century United States<sup>120</sup>.

Another town claimed to stand on seven hills is Seven Hills, Ohio. The motif also occurs for Athens, Texas; and Rome, Georgia. The seven hills motif is also associated with Richmond, Virginia; Lynchburg, Virginia; Ellicott City, Maryland; Providence, Rhode Island; Staten Island, New York; Yonkers, New York; Worcester, Massachusetts; Somerville, Massachusetts; Tallahassee, Florida; and Nixa, Missouri. On the West Coast of the United States, the motif of the seven hills is associated with San Francisco, San Diego, and Nevada City, all three in California, as well as with Seattle, Washington. In South America, the motif of the seven hills is associated with Asunción, Paraguay; Victoria, Argentina; and Guaranda, Ecuador. In Australia, the motif of the seven hills occurs for Melbourne, Brisbane, and Western Sydney. Dunedin, in New Zealand, is claimed to comprise seven volcanic cliffs.

There are occurrences of the claim that a given city stands on seven hills, or was built on (or in relation to) seven hills, on various continents, often in relation to settlements by Europeans (thus, carriers of Western civilisation, including the tradition about Rome's Seven Hills), but not always so. In Africa, such a claim is associated with the cities of Ibadan in Nigeria, and Kampala in Uganda. On the Mediterranean coast of Morocco, the seven hills motif is associated with the town of Ceuta, which belongs to Spain. The motif is also associated, in Asia, with Mecca and Tehran. Its being associated also with Macau, on China's coast, is perhaps in relation with the Latin, Catholic, Portuguese colonial legacy of that city.

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<sup>120</sup> See G. WILLS, *Cincinnatus, George Washington and the Enlightenment*, Garden City, NY: Doubleday, 1984. EARLE LABOR, reviewing Jay Watson, *Forensic Fictions: The Lawyer Figure in Faulkner* (Athens, Georgia, USA: University of Georgia Press, 1993), in *American Literature* [Durham, NC: Duke University Press], 66(4), 1994, 858–859, remarked on p. 859 about “faith in those communal values apotheosized in the mythic figure of ‘Cicero Cincinnatus’, as Allen Tate labelled this ideal lawyer-citizen”.

Lucius Quintius Cincinnatus became a consul of the Roman Republic in 460 B.C.E., and in 458 he was made a dictator, i.e., he was given full powers during a war; he won that war against the Equi, and then reportedly retired to cultivate his fields. This made him into the *exemplum* of disinterested public action. Notwithstanding the onomastic connection between Cincinnati and the virtuous Cincinnatus, the following pun has been reported. An article by C. Grant Loomis, “Traditional American Wordplay: The Conundrum”, *Western Folklore*, 8(3), 1949, 235–247, comprises a section on American conundrums concerning place-names (*ibid.*, 238–239). One of them is the following:

Which is the wickedest portion of America? Sinsinnaughty (*Cincinnati*).

It appeared in the San Francisco *Golden Era*, vol. 17, weekly number 25 (1869), 7.

As well as Jerusalem, the claim that a city stands on seven hills is also made concerning Jordan's capital, Amman. This is a successor of the ancient Ammonite capital, as per the literal sense of the biblical name *Rabbat 'Ammon* (which is also in use for Amman in Israeli Hebrew); and then of the Hellenistic-age Philadelphia. In the modern period, Amman was rebuilt mainly with the initial contribution of Circassian refugees, in the last quarter of the 19th century, after the devastations brought about by Tsarist Russia waging war against the Circassians in the Caucasus.

In India, the seven hills motif is associated with the cities of Thiruvananthapuram and Tirumala. For the latter, consider the following claim<sup>121</sup>: "In Asia, there are few cities on seven hills, except in India. One of the[m is the] hill town of Tirumala [which] is precisely where [one finds] the Temple of Seven Hills, the Tirumala Venkateswara. This temple is affirmed to be the most active place of worship in the world". The motif of the seven hills is also associated with Mumbai (Bombay), concerning islands that were eventually joined into a peninsula.

Nissan harbours the suspicion that Jerusalem's Seven Mountains, apart from the actual topography considered historically, are also an occurrence of an Indo-European motif, perhaps from Jerusalem's pre-Hebrew past (see below), which had a Hittite component, but it may also be that the ascription of seven hills to Jerusalem occurred in imperial Roman times, even after the exclusion of the Jews from Hadrian's Aelia Capitolina, as he renamed the city, and perhaps even after the Christianisation of the Roman Empire and of the city itself. (It would be wrong, however, to ascribe the "Indo-European motif" to an early spread of the Indo-Europeans, as there is a growing realisation that this was as early as the Palaeolithic, at any rate earlier than the emergence of cities rather than hamlets. If *it is* an Indo-European motif, it would have spread by diffusion. Even occurrence as far as India may well be an effect of the spread of the motif as having originally been associated with Rome).

After all, one of the epithets (from Hebrew hymnography) of the Temple of Jerusalem is *Góren Arawná*, "Threshing Floor of Aravnah", because King David bought the area of the future Temple he intended to build, from Arawna (Ārawnā), the no longer sovereign Jebusite king (fig. 21). *Arawna* is a splendid example of an Indo-Iranian personal name. Jerusalem was a city of which the prophet Ezekiel could point out the origins (which he did tauntingly): "Thy (f.) father is the Emorite, and thy mother is a Hittite" (*Ezekiel* 16:3). The Hittite community in the Land of Canaan was a carrier of an Anatolian culture with Indo-European affiliations. (Abraham, when he buys the field and Cave of Machpelah, deals with the local

<sup>121</sup> [http://en.wikipedia.org/wiki/List\\_of\\_cities\\_claimed\\_to\\_be\\_built\\_on\\_seven\\_hills](http://en.wikipedia.org/wiki/List_of_cities_claimed_to_be_built_on_seven_hills)

Hittites in Hebron, by conforming with the Hittite style of business negotiation, indulging in ceremonious compliments, as opposed to the dry style of business negotiation from Mesopotamian cultures).

Against this interpretation of the biblical name *Araunah*, consider what Nicolas Wyatt wrote<sup>122</sup>:

[T]he difficulties the text has with the spelling of the “name” “Araunah” point to a problem in its interpretation which is widely regarded as solved by the recognition in the Hebrew of a transcription of the Hurrian term *ewri* (in Ugaritic transcription *iwr*; at Alalakh *ewir*; at Nuzi *erwi*), meaning “lord”, “governor” and perhaps in this context “king”. It would be going far beyond the evidence to insist that this was an echo of Hurrian royal ideology, and in fact such evidence as there is points rather to Egypt as the primary source of inspiration. The significance of the Hurrian evidence lies elsewhere. As is well known, and as Brough notes, the *mariannu* warriors associated with Hurrian dominance in a number of important sites in the ancient Near East are to be linked etymologically, and perhaps ideologically too, with the Maruts of the Vedic tradition<sup>123</sup>, pointing to an influential Indo-European element in Hurrian

<sup>122</sup> On pp. 355–356 in NICOLAS WYATT, “David’s Census and the Tripartite Theory”, *Vetus Testamentum*, 40 (1990) 352–360.

<sup>123</sup> Or rather, the *mairya*. At the very root of Zoroastrianism and Judaism, each on its own side, arguably there was a response to an ethos or worldview that both superseded, and we are not (or not necessarily) talking about the same ideational entity or behaviour pattern being superseded. Namely, in the antediluvian narrative about the ethos of the generation of the Deluge and especially of the Nephilim (*Genesis* 6:4–5), perhaps (one may suspect) there is a precise reference to the practice of violence as a prerogative of groups within an aristocracy, or perhaps a military elite. This may remind of the *mairya* warrior bands of the (Indo?)Iranic world (Mesopotamia’s neighbour, but perhaps we are rather talking about the eastern reaches of the Iranian world, where Zoroastrianism is thought to have emerged): the *mairya* are claimed to have practised violence, furor (Gāthic term *aēšəma-* ‘fury’), predation, promiscuity, and sex imposed on the women of social subordinates, or should we rather say, of the powerless. The Avestic *Gāthā* texts (which for Zoroastrianism are foundational visionary songs, associated with Zoroaster) emerged, expressing what EZIO ALBRILE, on p. 17 in his article “Luce e profezia. Un’ introduzione alla religione dell’ Iran antico”, *Asprenas*, 56 (2009), 17–38, terms “una mentalità antitetica”. Zoroaster, if a historical character, or whoever for him, proposed a creed whose ethos was diametrically opposed to that of the *mairya*. Living the good life is prescribed in Zoroastrianism and Buddhism, just as it is in Judaism and the other Abrahamic religions, that share with Zoroastrianism a major concern with individual salvation (Syriac and Islamic sources identified Zoroaster with Baruch, Jeremiah’s scribe, thus making Zoroaster into Jeremiah’s disciple). It has been proposed that Zoroastrianism’s concern with the afterlife was consolatory for the subaltern; however, once you consider how widespread beliefs in an afterlife are among human cultures, it becomes apparent that such beliefs address more basic, as well as primordial and ever-persistent, concerns gnawing at humans about their condition in the world, which in the now and here is transient.

society. Indeed, Brough's reference to this issue in the context of Gideon points precisely to such an element in the Gideon cycle, the reasons for which I shall consider below. The presence in Jerusalem of an important figure (presumably the king: cf. the Hebrew text at 2 Sam. xxiv 23 [...]) called "Araunah" (the Awarnah) and the Hurro-Semitic name of a previous king mentioned in the Amarna letters, Abdi-Ḥepa<sup>124</sup>, constitute important Hurrian control of the city in the period down to David.

Nissan would rather refer to the Cappadocian personal names *Araunna* and *Ar-awanna*, to the Hittite background of Jerusalem, which Ezekiel pointed out, and to Hittite vocabulary: "FREE — *arawanni*- is specifically the opposite of ʾR [a Sumero-

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"If it turns out that the Gāthic term *aēšəma*- 'fury' is specifically associated with a certain type of masculine society, perhaps of Indo-European origins, as has been claimed by WIKANDER (1938, pp. 30–41, pp. 57–66) and WIDENGREN (1969, pp. 39–43, pp. 82–85), the social settings of the cult of the *daēvas* may well be significant in the condemnation [in the Gāthās] of these gods" (quoted from p. 45 in AMIR AHMADI, *The Daēva Cult in the Gāthās: An Ideological Archaeology of Zoroastrianism*. Iranian Studies, 25. London: Routledge, 2015). "Whereas Vedic India continues to use the term *deva* in its presumed Indo-European sense ('god'), in Iran the term comes to designate, first, a 'bad god' and eventually a 'demon'" (AHMADI, p. 44). "In the first part of the book I argue that the approaches taken by scholars since the mid nineteenth century to account for the 'demonization' [in the Gāthās, i.e., the five revealed songs accepted in Zoroastrianism] of the *daēvas* [gods seen as evil beings], far from taking the Gāthās as their point of reference and orientation, ignore the relevant passages or make them yield the expected meaning. If I am right that the question of the *daēvas* in the Gāthās has never been posed outside these frames, should we not want to know what in the treatment of the question comes from these, e.g. what is a red herring? It is not always the whole thesis that one adopts but this or that component of it. The perspective of theodicy has no place in the Gāthās: it is not only historically stranded but also incapable of executing the function for which it is enlisted" (AHMADI, p. 3).

<sup>124</sup> Or Abdi-Ḥeba, the ruler of Jerusalem. See a discussion of his seven letters inscribed on clay as found at Tell-Amarna, in Chapter 13, Section II, on pp. 265–269 in: YUVAL GOREN, ISRAEL FINKELSTEIN and NADAV NA'AMAN, *Inscribed in Clay: Provenance Study of the Amarna Tablets and Other Ancient Near Eastern Texts* (Tel Aviv University, Sonia And Marco Nadler Institute of Archaeology, Monograph Series, 23), Tel Aviv: Emery and Claire Yass Publications In Archaeology, 2004 (now freely available at [https://www.academia.edu/28154217/Inscribed\\_in\\_Clay\\_Provenance\\_Study\\_of\\_the\\_Amarna\\_Tablets\\_and\\_Other\\_Near\\_Eastern\\_Texts](https://www.academia.edu/28154217/Inscribed_in_Clay_Provenance_Study_of_the_Amarna_Tablets_and_Other_Near_Eastern_Texts)).

"Five of the seven letters of Abdi-Ḥeba, the ruler of Jerusalem belong to a petrographic group that is derived from the Moza and 'Amminadav formations distributed in the central hill country anticline and used frequently for pottery production in the vicinity of Jerusalem. Only EA 285 and 291 are alien to Jerusalem. The first was most likely sent from Beth-shean. In this letter, Abdi-Ḥeba complains that Yanhamu, an important Egyptian official in Canaan, took possession of his house and settled there an Egyptian garrison. Abdi-Ḥeba might have traveled to Beth-shean to discuss this delicate matter with an Egyptian official, and on this occasion wrote and sent this letter to the Pharaoh. EA 291 was sent from Gezer. This letter is fragmentary and the background of its exceptional origin remains unknown" (*ibid.*, p. 269).

gram used in Hittite for] ‘slave’, from *arawa-* (Lyc[ian] *arawā*) ‘free’ (*ELLU*), with widespread onomastic and toponymic attestation: e.g. Cappadocian personal names *Arawa*, *Arawahsu*; <sup>URU</sup>*Araunna*, <sup>URU</sup>*Arawanna*, etc.”<sup>125</sup>.



**Fig. 21. King David and Araunah. Detail of Giorgio Vasari’s *David Acquires Land on Which to Erect an Altar of Propitiation*, 1537, Arezzo, Museo Diocesano<sup>126</sup>. Araunah or Ornan the Jebusite, the communal leader of the Jebusites in Jerusalem, offers his threshing field for the future Temple of Jerusalem.**

<sup>125</sup> Quoted from p. 151, §19.44, in DAVID MICHAEL WEEKS, *Hittite Vocabulary: An Anatolian Appendix to Buck’s Dictionary of Selected Synonyms in the Principal Indo-European Languages*, PhD Dissertation in Indo-European Studies, University of California, Los Angeles, 1985, now freely accessible and downloadable from <http://www.sonic.net/~dweeks/work/samples/dissertation.pdf>

<sup>126</sup> See a discussion in C.M. BOECKL, “Giorgio Vasari’s *San Rocco Altarpiece*: Tradition and Innovation in Plague Iconography”, *Artibus et Historiae*, 22 (2001) 29–40.

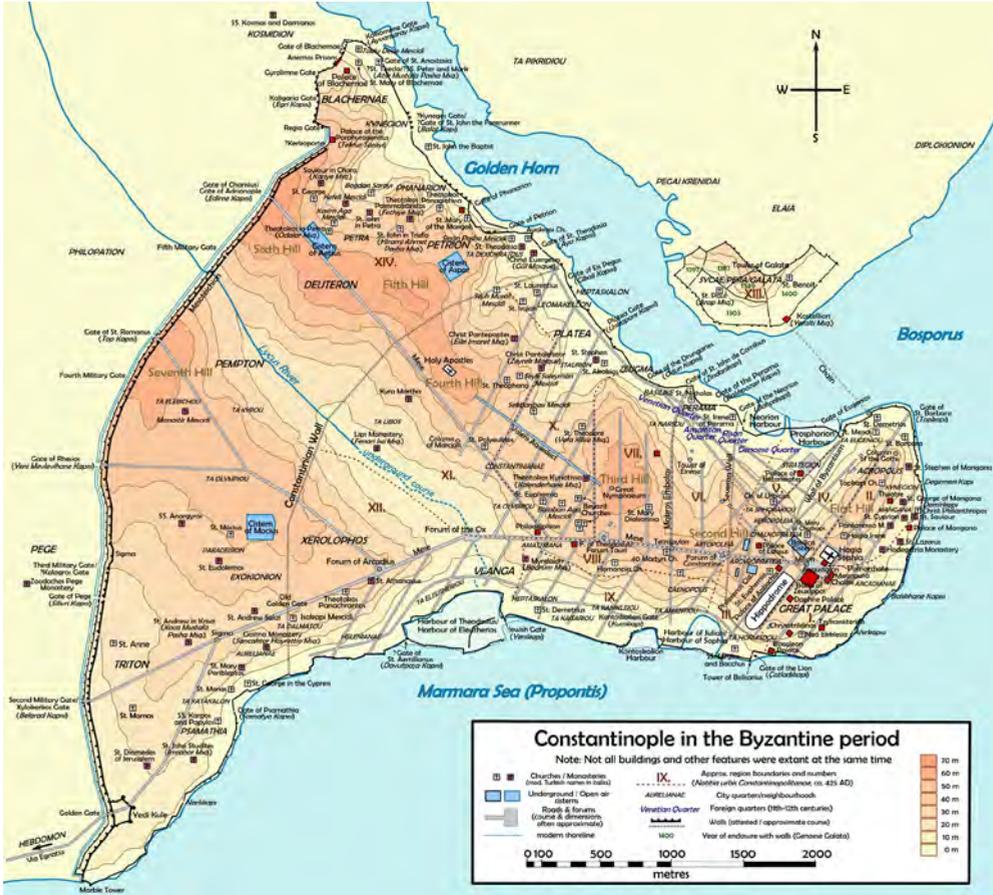


Fig. 22. Byzantine Constantinople and her seven hills (from Wikimedia). Details follow on the next few pages. Not all buildings and other features were extant at the same time.

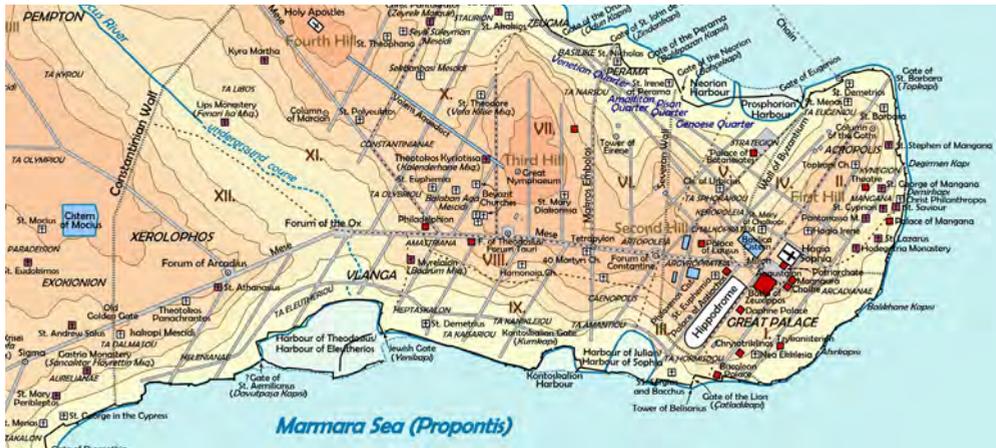


Fig. 23. Detail of a map of Byzantine Constantinople<sup>127</sup>.



Fig. 24.

<sup>127</sup> The entire map (by C. Plakidas): [https://en.wikipedia.org/wiki/Seven\\_hills\\_of\\_Istanbul#/media/File:Byzantine\\_Constantinople-en.png](https://en.wikipedia.org/wiki/Seven_hills_of_Istanbul#/media/File:Byzantine_Constantinople-en.png)

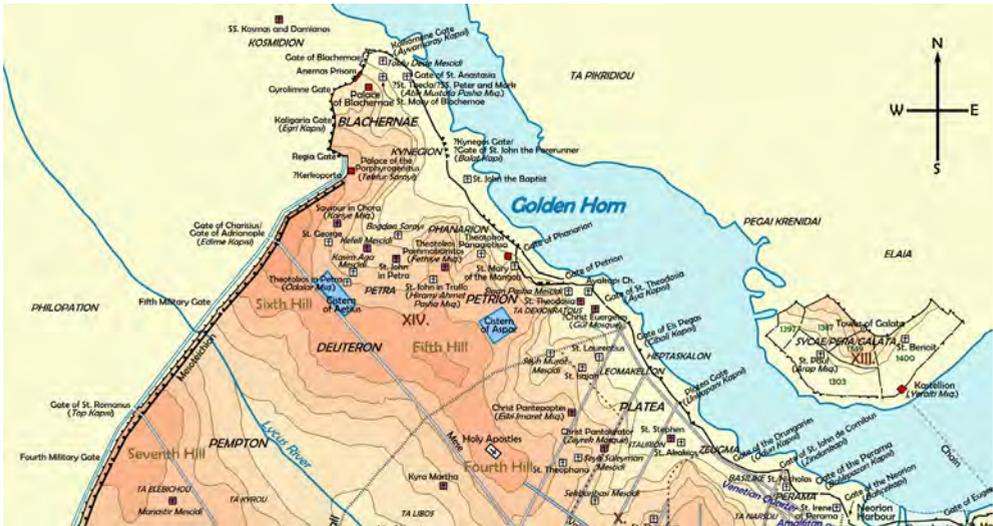


Fig. 25.



Fig. 26.



Fig. 27.

6. *Plutarch's Correct Explanation, in De facie quae in orbe lunae apparet, of the Spots on the Moon: "Thus the reflection occasioned by the pattern of lunar relief is the true explanation of the 'face' which appears in the moon"*

Opinions in the Graeco-Roman world concerning the spots on the Moon diverged. Plutarch's *Moralia* include the dialogue *De facie quae in orbe lunae apparet* (*Concerning the face which appears in the orb of the Moon*), from roughly 100 C.E.

The dramatic date of the dialogue is some time after A.D. 75, and the piece is a complex blend of first century science and philosophy, combining intelligent speculation with an assessment of earlier ideas, and culminating in a Platonic myth centred upon the fate of the soul after death. The speakers review the available knowledge concerning the nature of the moon and its relationship with the earth and other heavenly bodies. This in turn raises the question of the possibility of life on the moon, and whether, in the absence of inhabitants, the moon can be said to have a purpose. The discussion presents some fascinating thoughts on the fundamental issues of environmental causation (especially plant adaptation and the potentialities of different environments for various forms of life), the mutual relations of man and nature, and the structure and order of the cosmos. It has been widely acknowledged that the *De facie* is of great interest for the history of astronomy, referring as it does to the theories of Aristarchus and Hipparchus, and looking forward to the discoveries of Copernicus and Galileo. Kepler described the dialogue as 'the most valuable discussion of the earth's satellite to come down to us from antiquity'<sup>128</sup>.

Concerning the appearance of the Moon, in the scientific part of *De facie* Plutarch remarked (we quote from the *précis* by Paul Coones)<sup>129</sup>:

As an earth the moon is beautiful, august, and elegant; if it were a star it would be feeble, faint, and sluggish, as well as being misshapen and a disgrace

<sup>128</sup> Quoted from p. 361 in PAUL COONES, "The Geographical Significance of Plutarch's Dialogue, concerning the Face Which Appears in the Orb of the Moon", *Transactions of the Institute of British Geographers*, 8 (1983) 361–372. Note 3 on p. 370 states, concerning the quotation from Kepler: "KEPLER, J. (1634) *Somnium, seu opus posthumum de astronomia lunari, divulgatum a M. Ludovico Keplero filio* (Zagan, Silesia, and Frankfurt) note 2; inspired by the myth from the *De facie*, Kepler's *Somnium* (Dream) blended science with demonology to offer a popular account of the heliocentric universe in the guise of a lunar fantasy. See also 'Plutarchi Philosophi Chaeronensis: Libellus de facie, quae in orbe lunae apparet', in FRISCH, C. (ed.) (1870) *Joannis Kepleri astronomi opera omnia* Vol. 8(1) (Frankfurt-am-Main) pp. 76–123; see also SCHMERTOSCH, R. (1897) 'Keppler zu Plutarchs Schrift „Vom Gesicht im in Monde“', in *Philologisch-historische Beiträge Curt Wachsmuth zum sechzigsten Geburtstag überreicht* (Leipzig) pp. 52–5; PIXIS, R. (1899) *Kepler als Geograph, eine historisch-geographische Abhandlung* (Munich); CASPAR, M. (1959) *Kepler*, trans. HELLMAN, C.D (London and New York) pp. 351–3".

<sup>129</sup> Coones, p. 363.

to the title. The moon's solidity is demonstrated by its reflection of the sun's light in the manner of the phases, and by its ability to hide the light of the sun during a solar eclipse. The colour which the moon displays in a lunar eclipse<sup>130</sup> is not its own, because it changes with the progress of the eclipse. (The causes of both solar and lunar eclipses are clearly explained.) The smouldering colour

<sup>130</sup> Plutarch was dealing with the colour of the Moon during a lunar eclipse. As for the colours and aspects of the Moon other than during an eclipse, consider its descriptions, sensory perceptions, and symbolism in the poetry of a modern Spanish writer. GUSTAVO CORREA, "El simbolismo de la luna en la poesía de Federico García Lorca", *PMLA* [*Proceedings of the Modern Language Association*], 72 (1957) 1060–1084, stated on p. 1063: "En *Primeras canciones* y *Canciones* la nota de idealidad afirmativa se convierte en una mayor familiaridad con el astro nocturno. Una serie de metáforas revelan el acercamiento a la luna, ya sea como una fruta de agradable sabor para los niños, como una cuerda de salto para los galanes enamorados, o como una doble atracción con su presencia en el cielo y su reflejo en el agua en donde se halla a nuestro alcance. Los niños del 'TíoVivo' (288) se 'comen la luna / como si fuera una cereza', y los del poema 'Agosto' (292) comen 'pan moreno y rica luna'. En el poema 'Friso' (291) hay un gracioso cortejo amoroso a 'las niñas de la brisa', por 'los mancebos del aire' que 'saltan sobre la luna'. En 'Nocturnos de la ventana' (294) el salto a la luna alta del cielo antes tan difícil es ahora posible a través de la luna reflejada en el agua. Las dos lunas representan la llamada misteriosa del amor de dos niñas que se acercan. En 'Nocturno esquemático' (286) la aproximación se hace por medio de la imagen de la *escala*: 'La escala llega a la luna' (286). El acercamiento se opera también en el plano de los símbolos religiosos. En el último poema de las 'Cuatro baladas amarillas' (275) la luna ha descendido a las manos del niño y al retornar a la mansión celeste se convierte en halo de santificación en premio para su bondad". Those lines of verse are as follows: "Yo imagino esta tarde / que soy santo. / Me pusieron la luna / en las manos. / Yo la puse otra vez / en los espacios / y el Señor me premió / con la rosa y el halo". Gustavo Correa continues (pp. 1063–1064): "La iluminación lunar se revela en ciertas imágenes de una temática que ha de aparecer mas tarde en otras obras de Lorca. Al atardecer se combinan los ruidos del momento con la naciente luz lunar en la metáfora del yunque: 'Golpean rayos de luna / sobre el yunque de la tarde' (272). La punta del puñal se adivina en el poema 'Verlaine' con la imagen, 'la luna picaba / con un rayo en el agua' (309), y el eco rutinario de los perros a la luz de la luna se halla presente en el poema 'Baco': 'La luna cuenta los perros. / Se equivoca y empieza de nuevo' (310)".

There also is the theme of the cosmic Adam (CORREA, 1065): "Otro aspecto del simbolismo de la luna totalmente distinto en el libro de *Primeras canciones* se halla en el poema 'Adán' (279) de sensibilidad muy afín a *Poeta en Nueva York*. Este poema de abstracta arquitectura introduce por primera vez en la obra de Lorca la identificación de la luna con el concepto de fecundidad. La llegada de la aurora esta concebida como un parto cósmico en el que interviene un Adán cósmico, el Sol, y una madre prístina, la Luna, en trance de 'recién parida'. Los tintes rojizos del amanecer son la sangre de la herida. La luna reflejada en la ventana (*gráfico de hueso*) muestra una palidez esquelética de muerte. El Adán cósmico contempla el niño (el nuevo día) que promete una vida activa de caballista, pero otro Adán (el hombre) piensa en el esfuerzo frustrado de realización vital al presentir una luna no fecunda".

"La metaforización de la luna particularmente dominante en los primeros libros de Lorca ya esta en ellos vinculada a las varias fases de la lunación" (CORREA, 1079). "A la tradición folklórica y astrológica se deben en Lorca las referencias a los días de la lunación y sus particulares matices de significación. El frecuentísimo uso de los números encuentra en parte una respuesta en este hecho astronómico" (CORREA, *ibid.*).

is ‘rather an admixture or remnant of the light shining round about through the shadow’, a result of reflections occasioned by the flood of shade, similar to the colours encountered around a terrestrial lake. (This explanation is a very advanced one for the time, and is well on the way to the truth. The ‘blood-red, black, and other gloomy colours’ which were so terrifying to the superstitious resulted from the refraction of a certain amount of sunlight through the various layers of the earth’s atmosphere, but until the sixteenth century, and even later, this luminosity was taken as evidence that the moon was possessed of its own light.) The curved shadow of the earth cast upon the moon during a lunar eclipse demonstrates the sphericity of the earth, although the moon is smaller than the earth, being about a third of its size. The moon’s surface is interrupted by gulfs and chasms, which do not have to be so very large in order to cast long shadows and send a discontinuous reflection to earth; it is clear that most of the sunlight which the moon receives is scattered, and its light and heat lost. Thus the reflection occasioned by the pattern of lunar relief is the true explanation of the ‘face’ which appears in the moon.

Coones remarked<sup>131</sup>: “It is significant that as soon as it is established in the *De facie* that the moon is an earth, like our own, the question of its habitation is raised, which in turn provokes a number of fundamental geographical questions concerning environment and life”.

Among the various opinions about the face of the Moon as found in Plutarch’s dialogue *De facie quae in orbe lunae apparet*,<sup>132</sup> one also finds the idea that the Moon has a mirror-like surface. This is the subject of our next subsection.

#### 7. *The Belief That the Spots on the Moon Are Reflections of Earth’s Lands and Seas: Philip Stooke’s Hypothesis about the Bifurcated Contour of Southern Africa as Occurring in Medieval Mappaemundi*

In his dialogue *De facie quae in orbe lunae apparet* (*Concerning the face which appears in the orb of the Moon*), Plutarch has his speaker Lamprias relate that according to Clearchus (is this Clearchus of Soli?), “the face, as we call it, is made up of images of the great ocean mirrored in the Moon”. In Clearchus’ opinion, “the outer Ocean is seen in the Moon, not where it really is, but in the place from which reflection carried our sight into contact with it and its dazzle”. Plutarch has Lamprias refute

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<sup>131</sup> COONES, 363.

<sup>132</sup> An English translation of *De facie* can be found in A.O. PRICKARD, *Plutarch on the Face Which Appears on the Orb of the Moon*, Winchester, Hampshire, England: Warren and Son, Ltd., 1911.

that view<sup>133</sup>. In an article entitled “Mappaemundi and the Mirror in the Moon”, Philip Stooke included a section entitled “The Notion of the Mirror-Like Moon”<sup>134</sup>, in which he surveyed the historical occurrence of Clearchus’ idea. “The apparent conclusion of the participants of the dialogue [by Plutarch] is that the Moon is a world like the Earth, with a rough surface whose markings are the shadows of mountains. It is the abode of departed souls, and Plutarch gives several place-names which are presumably the oldest recorded examples of lunar toponymy”<sup>135</sup>.

Stooke pointed out that Alexander von Humboldt<sup>136</sup> referred to the idea that the surface of the Moon is a mirror, as “the hypothesis of Agesianax”, because Plutarch in *De facie* had quoted some lines from the poet Agesianax, describing the Moon as a mirror. There are modern authors, Stooke pointed out, who misascribed the idea to Aristotle (perhaps because there is an Aristotle among the characters of Plutarch’s *De facie*), whereas Johannes Kepler has misascribed it to Pythagoras.

Of his visit to Persia, von Humboldt claimed: “I have myself met, among highly-informed Persians, with a repetition of the hypothesis of Agesianax, according to which, the marks on the moon’s disk, in which Plutarch [...] thought he saw ‘a peculiar kind of shining mountains’ (volcanoes?), were merely the reflected images of terrestrial lands, seas, and isthmuses. These Persians would say, for instance, ‘What we see through telescopes on the surface of the moon are the reflected images of our own country’”<sup>137</sup>.

Stooke remarked that in the visible face of the Moon as observed with a naked eye, i.e., “on the Earth-facing hemisphere”, “[t]he bright highlands of the Moon en-

<sup>133</sup> Lamprias claims: “First, the outer Ocean is uniform, a sea with one continuous stream, whereas the appearance of the dark places in the Moon is not uniform. There are isthmuses”, and “each region is marked off and has its proper boundary, and so the places where light and shade meet assume the appearance of height and depth, and represent quite naturally human eyes and lips”. Consequently, Lamprias claims, there are two options: one option would be for us to “assume that there are more oceans than one, parted by real isthmuses and mainlands, which is absurd and untrue”. Alternatively, “if there is only one, it is impossible to believe that its image could appear thus broken up”. Moreover: “Given that the habitable world is ‘equal in breadth and length’, is it possible that the view of the sea as a whole, thus reflected from the Moon, should reach those sealing upon the great sea itself, yes, or living on it as the Britons do [...]?”

<sup>134</sup> On pp. 20–23 in PHILIP J. STOOKE, “Mappaemundi and the Mirror in the Moon”, *Cartographica*, 29 (1992) 20–30.

<sup>135</sup> STOOKE, 21.

<sup>136</sup> On p. 193 in ALEXANDER VON HUMBOLDT, *A Sketch of the Physical Description of the Universe*, Vol. 2, trans E. Otte, New York: Harper & Brothers, 1851.

<sup>137</sup> VON HUMBOLDT, *A Sketch of the Physical Description of the Universe*, Vol. 2, 1851, 193.

tirely surround the dark-plains”, so according to the opinion ascribed to Clearchus, as per its most logical interpretation, “the dark disconnected spots are reflections of terrestrial continents and islands, and the brighter surroundings are a reflection of the world ocean. Plutarch’s interpretation (as given in the worlds of Lamprias) does not match the observed features of the lunar disk”, thus misrepresenting Clearchus’ view, “so it is hardly surprising that the notion is rejected later in the dialogue”<sup>138</sup>.

The idea that the face of the Moon is a mirror was mentioned but rejected by both Alhazen (i.e., the Egyptian astronomer Ibn al-Haitham, c. 1000 C.E.), and the Syriac-language Eastern Christian writer Gregory Bar-Hebraeus. The latter was writing in Antioch but was a native of Melitene (now Malatya in Turkey); he is also known as Gregorius Abul Faragius or Gregory Abū ’l-Faraj of Ibn al-‘Ibrī, b. 1226, d. 1286 (a dating which is problematic in view of the date of the demise of Arghun, the Ilkhanid Mongol ruler of Persian and Mesopotamia, a death mentioned as having been preceded by paralysis in Bar-Hebraeus’ *Chronicon Syriacum*, unless we allow his *Chronicon* to have been supplemented after Bar-Hebraeus’ death). Another author who argued against the theory claiming that the Moon is a mirror, was Nicole Oresme, dean of Rouen Cathedral, writing in about 1370, in his commentary to Aristotle’s *De Caelo*. Also Leonardo da Vinci recorded but rejected in his notebooks the lunar mirror hypothesis. So did, in 1638, John Wilkins (1614–1672), secretary to the Royal Society, in his *Discovery of a World in the Moone*<sup>139</sup>, a book which first appeared in 1638 and which ran to several editions.

In contrast, apparently writing in 1271, “Robertus Anglicus openly accepted the notion” that the Moon is a mirror “in his commentary on the *Tractatus de Sphaera* by John of Holywood (Sacrobosco)”, even though “Sacrobosco himself, writing in about 1250 at the

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<sup>138</sup> STOOKE, 21.

<sup>139</sup> STOOKE, 23. AS COONES, 367, points out, “Wilkins relied heavily on the first part of the *De facie* for his description of the physical characteristics of the moon, and he refined and extended some of Plutarch’s remarks, most notably those concerning the colours of the moon in eclipse. In the course of his discussion he goes to considerable lengths to demonstrate the value of inhospitable regions: [...] Wilkins concluded that since ‘these mountains were not produced in vain’, it is highly likely that the moon is inhabited, and he suggests reasons for supposing that life could exist there, although he takes a step backwards in adopting a position reminiscent of Theon, that the habitability of the moon is a necessary condition of its beauty and usefulness. However, when it comes to the nature of the inhabitants to be found on the moon, Wilkins’ speculation comes to a sudden halt: he finds it impossible to answer such questions as”, to say it with Wilkins, “whether they are the Seed of *Adam*, whether they are there in a Blessed Estate, or else what means there may be for their Salvation? with many other such Uncertain Enquiries, which I shall willingly Omit, leaving it to their Examination who have more Leisure and Learning, for the Search of such Particulars [...] I dare not my self Affirm any thing of these *Selenites*, because I know not any Ground whereon to Build any Probable Opinion”.

University of Paris, made no reference to the mirror”<sup>140</sup>. Robertus Anglicus clearly stated that geographical features of the Earth were reflected in the Moon as in a mirror.

In his article, Stooke compared and discussed a mirror-image of a simplified sketch of the face of the Moon as observed with a naked eye, *vis-à-vis* medieval world maps. “The less schematic ‘transitional’ mappaemundi [...] may resemble the Moon if the central highlands are taken to represent the Indian Ocean [...] The Ptolemaic idea of an enclosed Indian Ocean must be discarded and Africa must be extended far south of the equator for this to be feasible”.<sup>141</sup> In just a few mappaemundi, one finds the contour of the southern part of Africa drawn as though it was bifurcated. That part of Africa was still unknown, and some people, at any rate a few individual cartographers (at the very least, the one who drew the world map labelled in Arabic which is now known as the Bodleian Map, but which Stooke referred to as the Ibn Said map) apparently thought they could infer the contour of the southern part of Africa by reckoning from the surface of the Moon (figs. 28-35 & 39-40).

What little cartographic evidence there is suggests an Arab tradition that Africa could be seen in the Moon. This is unsubstantiated by explicit written evidence but may be supported by certain placenames. Ptolemy’s Mountains of the Moon, the supposed source of the Nile in his maps, were traditionally drawn in the central to southern part of Africa. The origin of this name is controversial. Thomson<sup>142</sup> (1948, p. 277) speculated that a local name might have sounded like ‘Selene’ to the Greeks, hence Ptolemy’s name. Bunbury<sup>143</sup> (1883, p. 617) proposed that the name was a translation of a native name. The region near the east African lakes was known locally as *Unyamwezi*, which Johnston<sup>144</sup> (1903, p. 114) derives from *Wunyamwesi*, ‘land of the moon’. Ludwig<sup>145</sup> (1939, p. 20) claimed that the name refers to native descriptions of mountains covered with moonlight (the silver snows on the peaks of the Ruwenzori range, the presumed basis for Ptolemy’s mountains), a

<sup>140</sup> STOOKE, 22. Robertus Anglicus claimed: “Another more probable explanation is that the moon is like a polished, smooth and pure body, in which the forms of things facing it shine as in a pure mirror. Therefore, the parts of the earth which are covered with water appear in the moon clearly and the parts of the earth uncovered by water appear in the moon obscurely, and according to the shape of the site of these parts on earth appears the image of the moon”, as per the translation on pp. 245–246 in L. THORNDIKE, *The Sphere of Sacrobosco and Its Commentators*, Chicago, Illinois: The University of Chicago Press, 1949.

<sup>141</sup> STOOKE, 25–26.

<sup>142</sup> J.O. THOMSON, *History of Ancient Geography*, Cambridge, U.K.: Cambridge University Press, 1948.

<sup>143</sup> E.H. BUNBURY, *A History of Ancient Geography*, Vol. 2, New York: Dover Publications, 1883. Reissued in 1959.

<sup>144</sup> H. JOHNSTON, *The Nile Quest*, New York: Frederick A. Stokes Company, 1903.

<sup>145</sup> E. LUDWIG, *The Nile: The Life-Story of a River*, trans. M.H. Lindsay, New York: Garden City Publishing Co., Inc., 1939.

suggestion repeated by Thomson (1948). African explorers of the nineteenth century frequently encountered and used the name Unyamwezi, and Speke<sup>146</sup> (1906, p. 216) called the local people ‘men of the Moon’. [...]

[...] However, links with the Arab world can also be traced. [...] Madagascar was known to Arab sailors in the 1480s as ‘Moon Island’<sup>147</sup> [...] This name also appears on an island in Idrisi’s world map, [...] Madagascar is on the wrong side of Africa to be considered the object of which [the lunar] mare Crisium is the image, if reflection is taken into account, so a direct comparison is not necessarily implied here as it is for Ibn Said’s map. [...] Given the quite explicit Persian belief in the lunar mirror noted by Humboldt, it may be plausibly be suggested that some scholars in the Middle East entertained the idea that the eastern maria [on the Moon’s surface] are a reflection of Africa. This belief might have passed from traders in east Africa to both natives and European explorers<sup>148</sup>. If it had its deepest roots in Greece it might have passed to the Arabs via Ptolemy, while if it originated in the Arab world it could have been interpolated into later versions of Ptolemy as once suggested by Desborough Cooley<sup>149</sup> (vid. figs. 36-38).

Intriguingly, reckoning about a shape that cannot be observed directly, by resorting to a mirror instead, is not confined to humans alone. Inferring something unknown (their own body parts they could not observe) by looking in the mirror is something that some apes –upon their realising that what they saw in a mirror was their own body– have been observed doing, by researchers carrying out experiments in mirror self-recognition (MSR) by animals. “Animals that pass the mirror test tend to exhibit other behaviours in front of a mirror, says Povinelli. For example, chimps will examine their eyes, open and peer into their mouths, and try to view their anus and genitals, indicators of recognition the robot does not display”<sup>150</sup>. “That is to say, such chimpan-

<sup>146</sup> J.H. SPEKE, *Journal of the Discovery of the Source of the Nile*, London: J.M. Dent & Sons, Ltd., 1906, reprinted 1912.

<sup>147</sup> Also the name of the nearby Comore Islands is from Arabic *qamar*, ‘Moon’.

<sup>148</sup> STOOKE, 27, was being unrealistic, in view of the chronology, when he thought that it was European explorers who learned about the relation of the lunar mirror to the south of Africa. Note however that non-Muslim European explorers only made their appearance on the Indian Ocean coasts of Africa towards the end of the 15th century. (See FRANÇOIS-XAVIER FAUVELLE’S admirable *The Golden Rhinoceros: Histories of the African Middle Ages*, Princeton, New Jersey: Princeton University Press, 2018.) Rather, we suggest, the relation of the south of Africa to the lunar mirror would have been transmitted by Islamic sources (textual or verbal) to Europeans in the Mediterranean.

<sup>149</sup> STOOKE, 27.

<sup>150</sup> C. BIEVER, “Not That Impressed by Nico’s Mirror Test”, *New Scientist*, 194(2604), 19 May 2007, 30–31 in the U.K. edition of that weekly (which also has American and Australian editions).

zees do realize that the image in the mirror is a representation of their body, and that it also represents such body parts of theirs that they have been thus far unable to observe. Prompted by curiosity, they seize the opportunity to use the mirror as a tool for also seeing details of themselves that their eyesight cannot reach directly”<sup>151</sup>



**Fig. 28. A simplified sketch<sup>152</sup> of what Stooke considered to be “the Ibn Said map of c. 1250”, but which in a “Note added in proof” he averred had been renamed “the Bodleian Map” in the *History of Cartography*, and was no longer ascribed to Ibn Sa’id. The south of Africa resembles spots on the Moon, as though the region was reflected there in a mirror.**

<sup>151</sup> Quoted from p. 494 in E. NISSAN, “From Embodied Agents or Their Environments Reasoning About the Body, to Virtual Models of the Human Body: A Quick Overview”, *Journal of Intelligent and Robotic Systems*, 52 (2008) 489–513.

<sup>152</sup> STOOKE, “Mappaemundi and the Mirror in the Moon”, 26, Fig. 8.

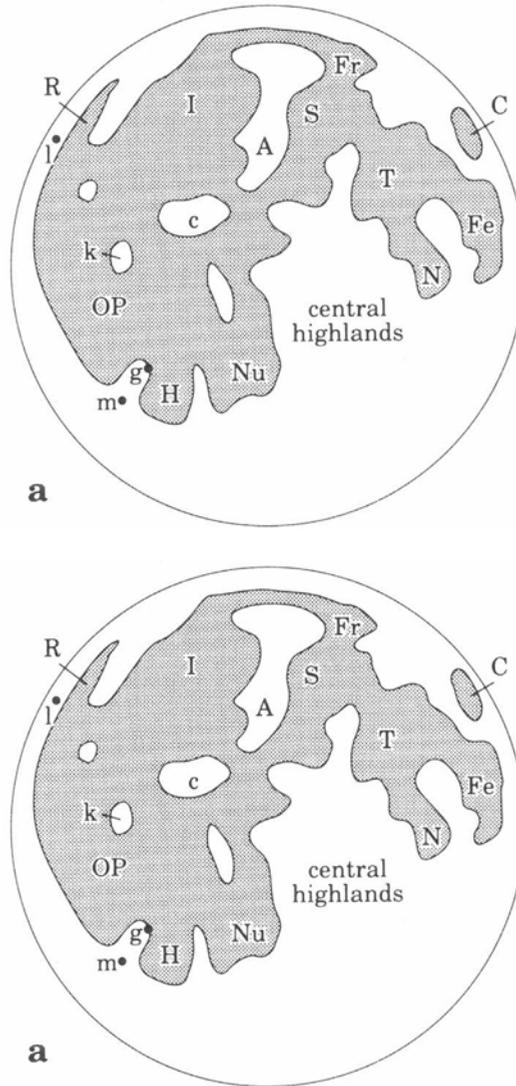


Fig. 29. The spots on the Moon, (a) as drawn by Philip Stooke from naked eye observation, and (b) reversed as if in a mirror for comparison with *mappaemundi*<sup>153</sup>. Key list for (a): A, Alps, Apennines. C, Mare Crisium. c, Copernicus. Fe, Mare Fecunditatis. Fr, Mare Frigoris. g, Gassendi. H, Mare Humor. I, Mare Imbrium. k, Kepler. l, Lavoisier. m, Mersenius. N, Mare Nectaris. Nu, Mare Nubium. OP, Oceanus Procellarum. R, Sinus Roris. S, Mare Serenitatis. T, Mare Tranquillitatis.

<sup>153</sup> Adapted from Fig. 1 on p. 21 in STOOKE, “Mappaemundi and the Mirror in the Moon”.



Fig. 30. The Bodleian Map (MS Laud. Or. 317, fols. 10v–11r), a world map in Arabic now dated 977 A.H./1570 C.E., with a bifurcated contour of southern Africa.



Fig. 31. Detail of the Bodleian Map, from British Isles to the far two-pronged tips of Africa.png



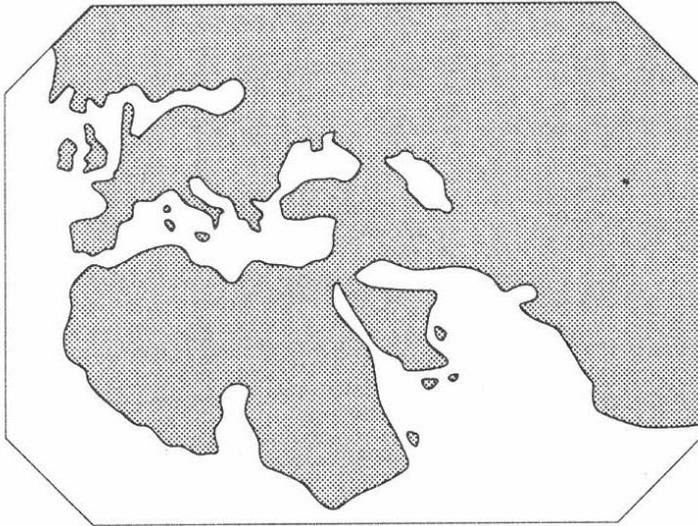
Fig. 32. Enlarged detail of the Bodleian Map, from British Isles to the far two-pronged tips of Africa.png



Fig. 33. Another view of the southern tip of Africa, from the same map.



**Fig. 34. A simplified sketch<sup>154</sup> of Albertin da Virga's map of c. 1414. Note the contour of southern Africa.**



**Fig. 35. A simplified sketch<sup>155</sup> of the Medici atlas of c. 1351. Note the contour of southern Africa.**

<sup>154</sup> STOOKE, "Mappaemundi and the Mirror in the Moon", 26, Fig. 9(d).

<sup>155</sup> STOOKE, "Mappaemundi and the Mirror in the Moon", 26, Fig. 9(c).

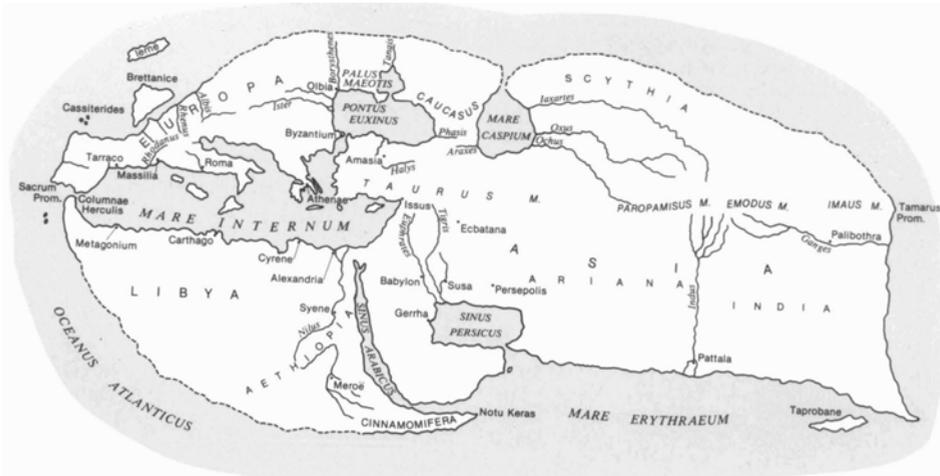


Fig. 36. For Ptolemy, the Indian Ocean was a closed sea, as the unknown south of Africa was thought to be connected to a land east of gulf, itself east of the Golden Chersonese, i.e., the Malay Peninsula<sup>156</sup>.

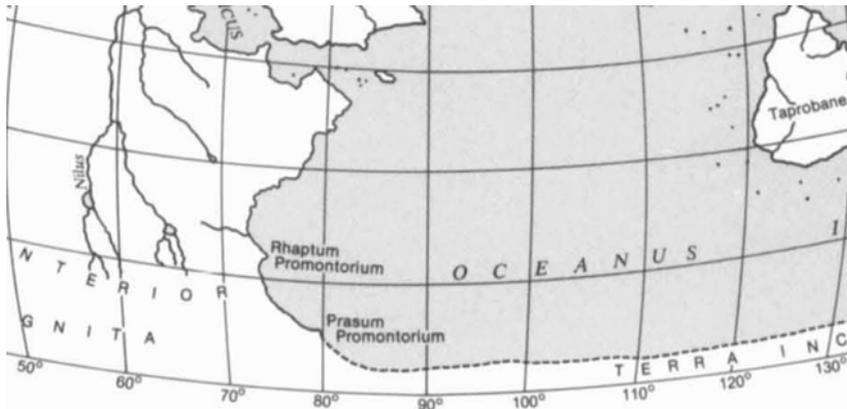


Fig. 37. The Indian Ocean as a closed sea, as per a reconstruction of Ptolemy's understanding of the world.

<sup>156</sup> "Golden Chersonese" has been a florid name for the Malay Peninsula in modern times. In a book of short stories by ROUNSEVELLE WILNDMAN, *Tales of the Malayan Coast: From Penang to the Philippines*, Boston: Lothrop, 1899, the table of contents is as follows: "Baboo's good tiger", "Baboo's pirates", "How we played Robinson Crusoe", "The sarong", "The kris", "The white rajah of Borneo", "Amok!", "Lepa's revenge", "King Solomon's mines", "Busuk", "A crocodile hunt", "A New Year's day in Malaya", "In the burst of the southwest monsoon", "A pig hunt on Mount Ophir", "In the court of Johore", "In the Golden Chersonese" (our added underlining), "A flight with Illanum pirates". Wright American fiction, Vol. 3 (1876–1900), reel W37, no. 5970 (1970).





Fig. 39. A map of Africa (the original is in a hand-coloured woodcut print), from a copy from Ulm, 1482, Claudius Ptolemy's *Cosmographia*. It is as though Egypt was a square, top right, in a more or less rectangular Africa.



**Fig. 40.** This map of Africa by Giacomo Gastaldi (or Gastaldo), from the second half of the 16th century, conveys an old idea of the shape of Africa. Looking at this ought to help one to better understand the talmudic claim that the size of Egypt is one sixtieth of Cush (Ethiopia)<sup>157</sup>.

<sup>157</sup> There is a talmudic statement: “The entire world (i.e., earth) is like a cover on top of Gehenna”. In the *Babylonian Talmud*, tractate *Pesaḥim*, 94a, states (here, in the words of the Soncino English translation, their brackets): “Come and hear: Egypt was four hundred parasangs square. Now Egypt is one sixtieth of Ethiopia [Cush], Ethiopia one sixtieth of the world, the world one sixtieth of the Garden, the Garden one sixtieth of Eden, Eden one sixtieth of the Gehenna: thus the whole world is like a pot lid [in relation] to Gehenna”. Isidore Epstein (ed.), *The Babylonian Talmud*, translated into English with Notes, Glossary and Indices. London: The Soncino Press, 1935–1948. 35 volume edition: *Seder Nezikin* (8 vols., 1st edn, 1935, repr. 1952, 1956); *Seder Nashim* (8 vols., 1st edn. 1937, repr. 1956); *Seder Mo’ed* (8 vols., 1st edn., 1938; repr. 1956); *Seder Tohoroth* (2 vols., 1st edn. 1948, repr. 1960); *Seder Zera’im* (2 vols., 1st edn., 1948, repr. 1959); *Seder Kodashim* (6 vols., 1st edn. 1948, repr. 1960); *Index Volume* (1952). 18 volume edition: *Seder Nezikin* (4 vols., 1961); *Seder Nashim* (4 vols., 1961); *Seder Mo’ed* (4 vols., 1961); *Seder Tohoroth* (1 vol., 1961); *Seder Zera’im* (1 vol., 1961); *Seder Kodashim* (3 vols., 1961); *Index Volume* (1961).

### 8. Concluding Remarks

In the two parts of this study, there is a main line of argumentation, and moreover, the subjects branch out. Hypotheses from the scholarly literature concerning separate textual items –namely, the early medieval rabbinic (and in 1982, Wiesenberg’s) interpretation of Jerusalem’s walls being<sup>158</sup> engraved as though on the palms of the hands of God in the sense that Jerusalem is always remembered by Him (*Isaiah* 49:16) in relation to the constellation of Cassiopeia (cf. *al-Kaff* ‘the hand palm’ in Arabic); and Vinci and Maiuri’s

<sup>158</sup> Or rather the letter shin of the Proto-Hebrew script, this being the initial of the name *Shalem* (ŠLM), taken to be an alternative form of the name of Jerusalem. The Proto-Hebrew form of that letter of the Hebrew alphabet is W whereas in contrast, the post-exilic form of that same letter, still in use, is Ψ which could be described, in simplified form, as an angle with in its middle, a vertical line dividing the angle into two halves.

It is interesting to note that in the sacred literature corpus of Judaism, the shape of the letter *shin*, this time in its post-exilic form, was again ascribed a cosmic significance in *Midrash Tanḥuma*, a medieval compilation using late antique material, especially the long-lost *Midrash Yelammedenu* from Roman / Byzantine Palestine: “Midrash Yelammedenu, for all intents and purposes the precursor of Midrash Tanhuma” (p. 150 in MYRON B. LERNER, “The Works of Aggadic Midrash and the Esther Midrashim”, Ch. 3 in: SHMUEL SAFRAI, ZEEV SAFRAI, JOSHUA SCHWARTZ and PETER J. TOMSON, eds., *The Literature of the Sages, Second Part: Midrash and Targum, Liturgy, Poetry, Mysticism, Contracts, Inscriptions, Ancient Science and the Languages of Rabbinic Literature*, Compendia Rerum Iudaicarum ad Novum Testamentum, Section Two: The Literature of the Jewish People in the Period of the Second Temple and the Talmud, 3a, Assen, The Netherlands: Royal Van Gorcum & Minneapolis, Minnesota: Augsburg Fortress Press, 2006, 133–229; see also *IBID.*, 156, about the final form of *Midrash Tanḥuma*, and 153–154, about where it was compiled: in Europe? In Mesopotamia?).

In the chapter of *Midrash Tanḥuma* about the pentateuchal weekly portion *Shemini* (from *Leviticus*), the eighth section of that chapter begins by claiming that a precept or an act of giving praise to God is associated with every one of the 248 members of the human body (originally, that was the rabbinic count of the bones, apparently because the original count was made on the bones of an executed adulteress who was apparently in her late teens, so it differs from the bone count in a person who is fully adult anatomically). “Moreover, He signed His name *Shadday* (ŠDY) [one of the divine theonyms] in the Children of Israel. The *shin* (Š, Ψ) in the nostrils (*appayim*), lest they would receive and benefit from misappropriated property. And the *dalet* (D, 7) in the hand (*yad*, YD), so that a person’s transactions be legitimate, with no misappropriation. The yod (Y, 7) in the circumcision (*mila*, MYLH [the circumcised tip of the *membrum virile*]), lest a person sin etc.” That the text was cut short indicates that the copyist expected the readers to be able to find the continuation elsewhere, as he, the copyist, had been copying from there. Whereas in two of the three cases, it is the occurrence of the given letter in the spelling of the name of a particular body part that matters, in the case of the nostrils what matters is that the shape of the letter *shin* is being likened to the triangular shape of a nose seen from below, with nasal septum in the middle, between the outer sides of the nostrils. The nasal septum is taken to correspond to the vertical line in the middle of the post-exilic form of the letter *shin*.

The text in *Midrash Tanḥuma* continues with the claim that Moses found three things difficult. As Moses found it difficult to understand the supernaturally revealed design specification of the candelabrum, “What did the Holy One, blessed be He? He engraved it on the palm of the hand of Moses, and told him ‘Look and do as per their structure’ [(*Exodus* 25:4)], the way I engraved it on the palm of your hand”.

proposal that the ascription of only seven hills to Rome within the Servian Wall, and the very plan of those walls, were intended for them to correspond to both the number of stars in the Pleiades<sup>159</sup>, and the layout of respectively those hills and stars, with the Palatine hill corresponding to the star Maia (whose name was tabooed, on pain of death, in contexts referring to the foundation of Rome)– are brought together here.

We propose that there was in antiquity a motif by which, a people would consider its metropolis (its orography in the case of Rome, the city walls in Jerusalem's) as being reflected in heaven in a constellation. This was comforting, as the eternal city would endure as long as the firmament (a biblical expression indeed). What is more, we already know of the motif of the heavenly Jerusalem corresponding to the earthly Jerusalem, and besides, the motif of a city having seven hills (e.g., Constantinople and Jerusalem: the latter is stated in an awkward early medieval text, which we examine, about Jonah sightseeing underwater) is staggeringly widespread, mostly (probably exclusively) because of Rome's Seven Hills<sup>160</sup>.

<sup>159</sup> Let us say something about a Jewish legend concerning one of the Pleiades. *Midrash Abkir* is a Hebrew midrashic work, cited as early as the 11th century, and which is only extant in quotations about *Genesis* and *Exodus*. In *Midrash Abkir* as cited in *Yalqut Shim'oni ad Genesis* 6:4, one finds the following narrative, which we quote (with our added brackets) from pp. 194–195 in part three of LEO JUNG, "Fallen Angels in Jewish, Christian and Mohammedan Literature. A Study in Comparative Folk-Lore", *The Jewish Quarterly Review*, new series, 15/4 (1925) 467–502; 16/1 (1925) 45–88 and 16/2 (1925) 171–205; 16/3 (1926) 287–336. "Rabbi Joseph was asked by his pupils, 'What is 'Azazel'?' He said: 'When the generation of the deluge arose and served idols, the Holy One blessed be He, was grieved. Immediately two angels arose, Shemhazai and Azazel, and said before Him, 'Lord of the Universe, have we said before Thee before Thou didst create the world, [the following quotes *Psalms* 144:3] 'What is mortal man that Thou art mindful of him?' He said: 'And what shall be with the world?' They replied: 'Lord of the Universe, we would have been satisfied with it'. He said: 'It is evident and clear before Me that if ye dwell on earth the evil inclination would rule you, and ye would be (harder) worse than the sons of man'. They said: 'Give us leave, let us dwell with the creatures and Thou wilt see how we shall sanctify Thy name'. He said: 'Descend and dwell with them'. At once they corrupted themselves (did corruptly) with the daughters of man who were beautiful, and were unable to subdue their desire (passion). ¶ Immediately Shemhazai saw one girl, whose name was Istahar. He set his eyes on her and said, 'Grant my desire!' She replied: 'I will not grant it until thou teach me the Shem Hammeforash [the Tetragrammaton, God's name which Jews do not utter], by means of which thou ascendest to heaven, at the moment (hour) thou pronounce (rememberest) it'. He taught her that Name, she pronounced it, ascendest to heaven, without having sinned (dealt corruptly). The Holy One blessed be He, said: 'Because she has kept herself far from sin, go ye and fix her among the seven stars in order that she may be mentioned among them for ever. And she was fixed in the Pleiades'".

<sup>160</sup> Another similarity (motif co-occurrence) between Jerusalem and Rome is the wolf, the animal symbolising Rome and also the tribe of Benjamin, whose territory surrounds Jerusalem. When the Benjaminites, defeated in a war against the other tribes of Israel in premonarchic times, were reduced to 400 men with no women surviving, the other tribes, repenting for the terrible outcome of the war, allowed

We have also considered a different manner in which features of the Earth were believed to be reflected in heaven: the spots of the Moon were believed, at least as early as classical Greece, to be reflections of Earth's lands, and, as Philip Stooke has cogently shown, this influenced medieval mapmaking in the Islamic world, in that the southern tip of Africa was drawn with a bifurcated contour because of a feature of spots observed on the face of the Moon.

Yet another manner of correspondence between terrestrial things and things in heaven was found (as we have seen in Sec. 2 in Part Two) in the Etruscan discipline, practised in Rome, of soothsaying by examination of a sheep's liver. The liver was considered to be divided into regions, and these were each associated with a deity and an area in heaven.

In Part One, our discussion of Cassiopeia the constellation, as represented across cultures<sup>161</sup>, and of Queen Cassiopeia the mythological character, led to our discussion of how the character of her daughter, Andromeda, turned up in disparate contexts

those surviving Benjaminite men to abduct the maidens of the town of Shiloh during a festival when the maidens were dancing in a field. This resembles the Romans' rape of the Sabines in Romulus' times.

<sup>161</sup> We considered in Part One also some Scandinavian rock art that has been claimed to be a representation of constellations. In some relation to this, see CATHERINE DELANO SMITH, "The Emergence of 'Maps' in European Rock Art: A Prehistoric Preoccupation with Place", *Imago Mundi*, 34 (1982) 9–25.

Concerning the Pleiades in rock art from Scandinavia, see a paper by GÖRAN HENRIKSSON (of the Astronomiska Observatoriet, Box 515, S75120 Uppsala, Sweden), namely: "Prehistoric Constellations on Swedish Rock-Carvings", on pp. 155–173 in *Actes de la V<sup>ème</sup> Conférence Annuelle de la SEAC Gdansk, 5–8 septembre 1997*, Département d'Anthropologie Historique, Institut d'Archéologie de l'Université de Varsovie, Musée Maritime Central, Warszawa – Gdansk, 1999. The conference proceedings are accessible at <http://www.astro.uu.se/archast/SEAC97public.pdf>

Henriksson included a section about the Pleiades, in which he stated, among the other things: "Even if the Pleiades is a small group of quite faint stars they have caught the attention of people all over the world. The Pleiades have been used as an important calendar marker in the Middle East, Europe, Africa and America. There are many myths about these group of stars and for some unknown reason they are often said to be seven, but if you can see seven you can probably also see nine or may be even eleven stars. The Greek's also called the Pleiades the 'Seven Sisters' probably for mythological reasons. However, if the myth was inspired from what they saw in the sky they would have been called the 'Six Sisters'. ¶ On the Swedish rock-carvings they are mostly depicted as just six stars. They may be represented in a symbolic way as six cup marks; ordered in a circle in Hjulatorp, in the parish of Berg, in the province of Småland, as a semicircle with five cup marks along the circumference and one in the centre in Flyhov, in the parish of Husaby, in the province of Västergötland, and ordered in three columns with two rows in Oppeby, Nyköping, [...] In Herrebro there are just four cup marks ordered like a trapezium, but there may have been some lost by erosion, [...]. On the other hand there are eight or nine cup marks representing the Pleiades in a quite realistic picture on a standing stone at Klinta, in the parish of Smedsby on the island of Öland, [...]. ¶ My identification is not based on the similarity between the relative positions of the stars in the Pleiades and the arrangement of the cup marks in the rock-carving. The most important criterion has been a correct position of a narrow group of cup marks in front of a typical ship of the type Gemini-Taurus. [...]" (*vide infra*, figs. 42–43).

in Greek and Hellenistic culture, and one of the contexts was in Heliodorus' *Aethiopica*: an image of Andromeda on the wall of the royal bedchamber in Ethiopia causes the local queen to give birth to a white baby girl. (The queen abandons the baby, but provides her with a written account of the circumstances of her birth. This resembles a Jewish tale about the raped Dinah, Jacob's daughter, giving birth to Asenath, who is abandoned with an inscribed golden plate, is raised in Egypt, and marries Joseph.) Arguably, Heliodorus' novel popularised in the next few generations the theory of maternal imagination (it was still alive in English-speaking cultures in the early modern period); presumably this was the background of two versions of a rabbinic tale about a sage who reassures a Black man, in one version a king, that his wife had been faithful, even though she gave birth to a white baby son: as the husband admits, the paintings in his bedchamber depict light-skinned characters. The sage explains that the wife conceived while staring at the paintings. That narrative is combined with an exegesis of the account in Ch. 30 of *Genesis* of how Jacob manipulated the ewes into giving birth to lambs with skin patterns he found suitable for his circumstances in view of his agreement with Laban.

The motif of the bound and rescued Andromeda was also merged, in an Ethiopian narrative, with an account of the youth of the Queen of Sheba, a character whose late antique receptions, as Fabrizio Pennacchietti has shown (see in Part One), are related to lore about Onoskelis, a female demon with animal legs. The future Queen of Sheba is rescued by monks, one of whom (anachronistically) hit the monster with a cross; the monster, however, had touched the maiden's leg, which was turned into an animal's leg. The two parts of this study have touched upon, in the main, ancient conceptions of the heavenly bodies and their relation to entities on Earth, especially but not only "eternal cities" (Jerusalem and Rome); we have also seen other manners in which ancient (or medieval) scientific views came close to magic or wonder.

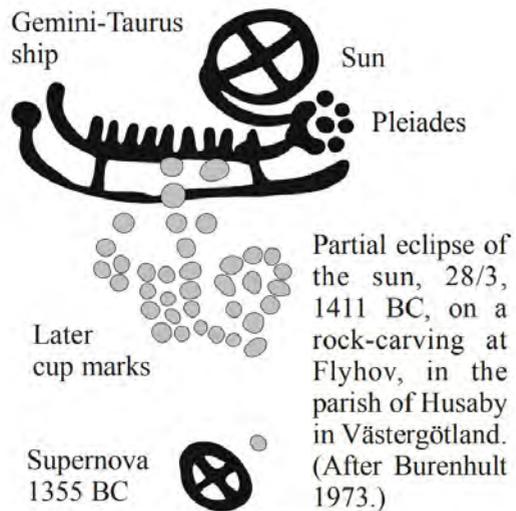


Fig. 42. One of the rock-carvings discussed by Göran Henriksson.

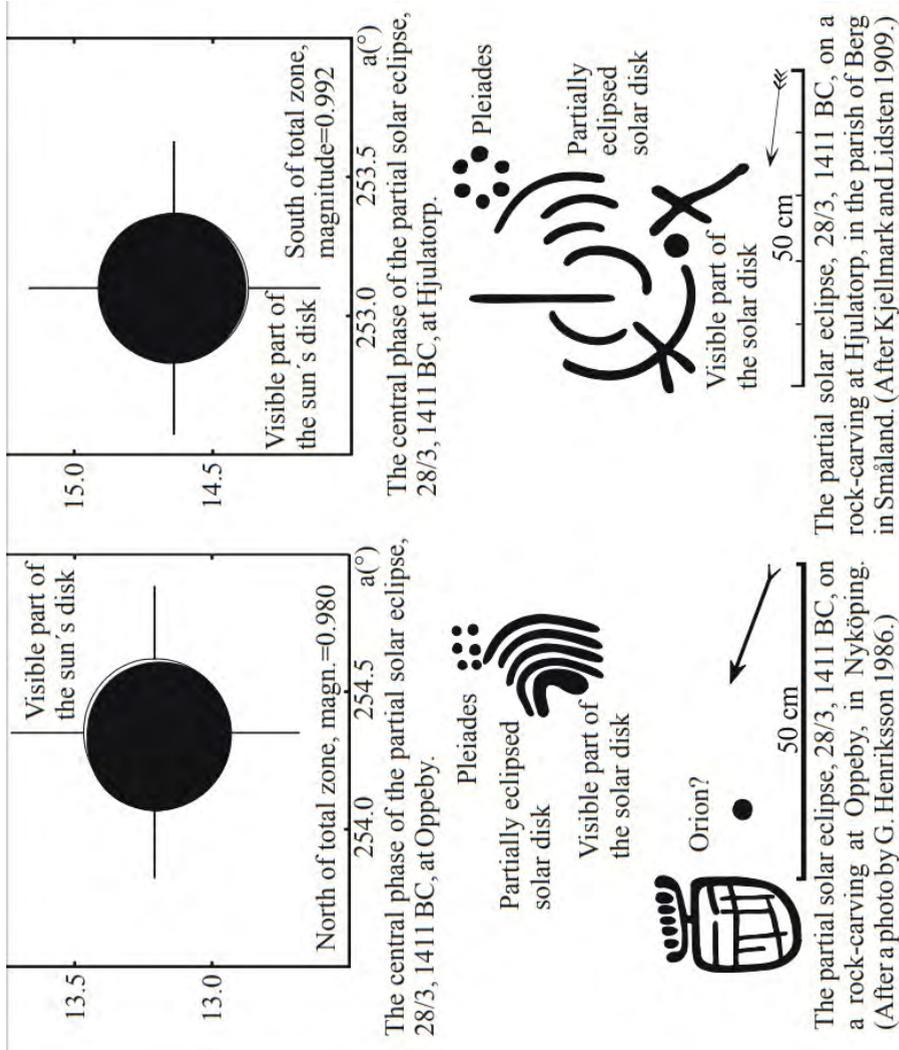


Fig. 43. The Pleiades in another rock-carving discussed by Göran Henriksson.