

About the insertions of the Greco-Arabian sky in the Arabian sky properly speaking, (Paul Kunitzsch's *Sternnomenklatur*)

1. Stars whose Greek origin is not disputed

* Stars of *Auriga*.

No. 35: العنَّاز / *al-^cAnnāz*, 36 & 37: المعز *al-^cAnz*, & 104 الجديان *al-Ġudayān*. The constellation of *Auriga* is in Greek *Ἐνίοχος* / *Heniokhos*, "He who holds the reins". This gives in al-Ḥaġġāġ, textually, that is to say by limiting ourselves to the diacritics indicated in the documents, Ḥaġ., 306 & Ish, 307:

صورة ممسك العنان وهو العيوق ويسمى بارومية أنيخس,

while Ishāq b. Ḥunayn writes:

كوكبة أنيخس تيسمى منكب الأعنة

We therefore have two synonymous forms for "the reins": العنان *al-^cInān* and الأعنة and *al-^cinna*. We now read in al-Šūfī, Schje., 91:

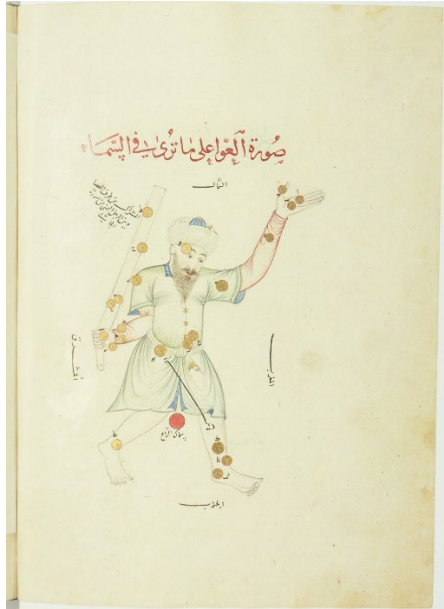
كوكبة ممسك الأعنة وتيسمى العناز أيضا

It is not impossible in this case that the /ن/ of العنان, given by Ishāq was read as a /ز/, and was conceived as "the Goats". But the name corresponds in any case to the fact that we have three goats in the sector: the 3rd (α Aur) which is *Aḏḏ / Aix*, the "Goat", Pto. 42. The Arabs translate by *al-^cAnz*, "the Goat", and which is for them which is العيوق *al-^cAyyūq*; the 7th and 8th ($\zeta\eta$ Aur) which are among the Greeks *Ἐριφοί*, "Kids", and which the Arabs call *al-Suḥlatān*, Ḥaġ., 304, or الجديان *al-Ġudayān*, Ish., 305, followed by al-Šūfī, Schje., 91.

It follows that the names noted in Paul Kunitzsch and bearing the numbers 35: *al-^cAnnāz*, 36 and 37: *al-^cAnz*, are manifest insertions of the Greco-Arabian sky into the properly Arab sky.

* Stars of *Bootes* :

No. 77: الذکر al-Dakar. There is no doubt that the name corresponds precisely to the Arabic figure of العواء *al-ʿAwwāʾ*, “the Howler”, an erroneous translation of the Greek name *Βοώτης* / *Boôtes* by Arab translators. It is one of the names of the star α *Aur* in the Greco-Arabian sky, whose traditional Arabic name is السماء الراميح *al-Simāk al-Rāmiḥ*. This is explained by the fact that, in many representations of al-Šūfī’s treatise, the star is located at the top of the figure’s crotch, see image *infra*, ms. BnF, Arabe 5036, f. 43r-v.



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N° 121 : حارس الشمال *Hāris al-Šamāl* / حارس السماء *Hāris al-Samāʾ*. The first name appears as the name of the constellation. We can see it not in the two great translators of Ptolemy, Ḥaḡ., 226 & Ish., 327, but in the treatise of al-Šūfī, Schje., 64, and both appellations are in his text, presented as names given by the Arabs according to purely astronomical data, but with a reservation: "one could say the same of all the stars which have a fairly large latitude", Schje.,

66-67. Except that Aratos calls this *figure* Ἀρκτοφύλαξ, *Arktophylax*, literally "Guardian of the Bear" but also "Guardian of the North", Aratos, 92-93. Now Aratos was translated into Syriac by Severus Sebokht and it is likely that the Arab translators we have spoken of were Syriac speakers and knew the text, and probably used it in their translations. It is therefore likely that the names n° 121 are an insertion of the Greek sky.

*** Stars of *Canis Major* & *Canis Minor***

No. 139: الكلب *al-Kalb* and 140: كلب الجبار *Kalb al-Ġabbār*. In Ptolemy, *Κύων* / *Kuōn*, "the Dog", is not only the name of *Canis Major*, but originally that of the first star of this constellation, α *CMA*, Pto, 72-73. The name الكلب *al-Kalb* is the translation of the Greek name by the two great translators of Ptolemy for both the constellation and for α *CMA*, Ḥaġ., 214 & Ish, 215, followed by al-Šūfī, Schje. 221. As for: كلب الجبار *Kalb al-Ġabbār*, noted by al-Šūfī as another name for العبور الشعري *al-Ši'ra l-ʿAbūr*, it is clearly an Arabic creation reflecting, in the Greco-Arab sky, the proximity of α *CMA* with the figure الجبار *al-Ġabbār*, which is one of the Arabic names of Ὠρίων / *Ōriōn* whose epithet is Γίγας / *Gigas*, "Giant", Ḥaġ., 226 & Ish, 227, Schje. 208.

*** Stars of *Orion***

No. 162: منطقة الجوزاء *Mintaqat al-Ġawzā* ', 204: طاق الجوزاء *Niṭāq al-Ġawzā* '. The 26th, 27th and 28th stars in Ptolemy, or the Bayer group $\delta\epsilon\zeta$ *Ori*, are located on the ζώνη, or the "belt" of *Orion*, which gives in Arabic المنطقة في *fi l-mintaqa*, Ḥaġ., 214, and على المنطقة *ʿalā l-mintaqa*, Ish, 215, knowing that al-Šūfī gives as a synonym for منطقة الجوزاء *Mintaqat al-Ġawzā* ', the name *Niṭāq al-Ġawzā* ', Schje. 207.

No. 266: سيف الجبار *Sayf al-Ġabbār* for c , $\theta 1$, $\theta 2$ and ι *Ori*. In Ptolemy, stars 29 to 34 are located on the μάχαιρα, which is a kind of "saber", Pto. 70. The Arabic translators give السيف *Ḥaġ.*, 214 & Ish, 215, followed by al-Šūfī, Schje., 209, who gives in the text

سيف الجبار *Sayf al-Ġabbār*, Schje. 207. We are clearly in the Greco-Arabic sky.

2. Stars to add to the original Greek lot:

* Stars of *Crater*

No. 61. الباطية *al-Bāṭiya*. The Greek constellation is *Κρατήρ / Krater*, Pto, 198-199. Where al-Ḥaġġāġ gives *al-Ka's*, “the Cup,” 198, and Ishāq b. Ḥunayn gives الباطية *al-Bāṭiya*, 199, followed by al-Sūfī, Schje. 228. This is indeed the insertion of the name the Greco-Arabian constellation in the strictly Arabian sky.

* Stars of *Ursa Major*

No. 49: العنق which must be read effectively *al-^cUnuq*, “the neck”, This is not in fact a corruption of الحوض *al-Ḥawḍ*, which is the name of the circle formed by the stars *θυροφθef UMa*. Indeed, the 7th and 8th stars (*b* and *τ UMa*) are located in Ptolemy on the *τράχηλος*, or the “neck” of the Bear, Pto., 32.

No. 57 بنو نعش *Banū Na's*. If this is a purely Arabic synonym of بنات نعش *Banāt Na's*, No. 56, or بنات نعش الصغرى *Banāt Na's al-Ṣuġrā*, is a duplication, in the Greek manner, of the figure of بنات نعش *Banāt Na's*, which makes the latter become, reciprocally, No. 55: بنات نعش الكبرى *Banāt Na's al-Kubrā*. We therefore have in numbers 55 and 56, an insertion of the Greco-Arab sky.

3. Stars whose origin may not be Greek

* No. 259. السفينة *al-Safīna*.

Paul Kunitzsch is right to say that Ibn Qutayba mixed the Arabic and Greek skies, but he does not totally exclude the possibility that a Arabic *safīna* existed, see Kun. 104. That said, two sets of reasons support this possibility. First, on the linguistic level, *al-safīna* is a proper Semitic word: *saphīnta* in Syriac, in Akkadian *sapīnatu*, considered as an Aramaic loan, *spīna* in Hebrew, and

naturally in Arabic *safīna*, a word besides found in the Koran, 18 : *al-Kahf*, 71. On the astronomical level, the figure placed by Ibn Qutayba under the 25th lunar station is located extremely far from that of *Argo Navis*. So, even if there are, among the authors who describe the proper Arabian sky, we actually find insertions of the Greek sky, we cannot exclude that this figure we think that is not an insertion of the Greek sky into the Arabic sky, but a properly Arabic figure. we cannot exclude السفينة *al-Safīna* as a figure existing by the Arabs before the adoption of the Greek-Ptolemaic sky by the astronomers of the 9th century. We can even say that it would be explicable in these circumstances that, just as the Arabs, as reported by Ibn Māğid, came to confuse the huge Arab *al-Asad*, “the Lion” and the little Greek one to which we are accustomed, they could have confused an old Arab *al-Safīna* and the Greek *al-Safīna* (*Argūs*), Ḥağ., 206 & Ish., 207, and al-Şūfī, Schje. 224.

* No. 275. السنبلَة *al-Sunbula*.

This is indeed the name also given by Ishāq b. Ḥunayn and al-Ḥağğāğ to the Greek constellation Παρθένος / *Parthenos*, whose exact translation is العدراء *al-^cAdrā*’, as indicated by al-Şūfī, Schje. 158. This comes from the fact that in the Arabian Zodiac, the first attestation of which is the Baghdad horoscope of 762, the sign of *Virgo* is not العدراء *al-^cAdrā*’ but السنبلَة *al-Sunbula*. It is in origin the Akkadian name AB.SĪN = *Šubultu*, “the [barley] Ear”. Other names of the Mesopotamian Zodiac are found in Arabic, and in two ways.

In the Zodiac of Baghdad, 762, see Bīr., 262-263, and the Greco-Arabic Zodiac, Laffitte (2001), 114-117. Thus:

UDU = *Immeru* “the Sheep” gives: الحمل / *al-Ḥamal*, “the Lamb”, not القبش *al-Qabš*, the “the Ram”, as in the Greco-Arabic Zodiac.

ALLUL = *Alluttu* and *Kušu*, “the Crab”, gives السرطان / *al-Saraṭān*.

UR.GU.LA = *Urgulû*, “the Lion”, becomes الأسد / *al-Asad*.

GIŠ.ÉRIN = *Zibanitu*, “the Libra”, gives the stars الزباني *al-Zubānā*.

PA.BIL.SAG (the double headed ithyphallic centaur archer) becomes القوس / *al-Qaws*, “the Arc” and not الرامي *al-Rāmī*, as in the Greco-Arabic Zodiac.

SUHUR.MÁŠ = *Suḥurmāšu*, which appears in the form *Urišu*, “the Kid”, gives الجدي *al-Ġady*, and never the equivalent of the Greek *Aiγόκερωσ* / *Aigokerōs*.

We also have, not in Akkadian but in Aramaic *Dōlā*, which gives Arabic الدلو *al-Dalw*, and not Sākib al-mā‘, as in the Greco-Arabic Zodiac.

See On the Zodiac in the different languages, Laffitte (2002), 97-118.

All these figures also exist in the traditional Arabian sky, behind the *manāzil al-qamar*, where they have different forms from those of the Zodiac, which comes from the fact that the Zodiac as a collection of signs has remained in time, while the Zodiac as a computation has undergone its own evolution as we find it in the Arab calendar of the *manāzil*:

الحمل / *al-Ḥamal*

الأسد / *al-Asad*

الزباني / *al-Zubānā*

الدلو / *al-Dalw*

It would not be surprising, following this itinerary, السنبلة *al-Sunbula* given to designate the stars of *Coma Berenices*, which adjoins *Virgo*, is not a Greek insertion of the translation of the Greek *Στόχος* / *Stakhus*, “the Ear”, applied to the 14th star of the constellation (Bayer: α *Vir*), Pto. 56, translated into Arabic السنبلة *al-Sunbula*, Ḥaġ., 260 & Ish, 261, followed by al-Šūfī, Schje., 164. It seems to me much more likely that this name results from a slight displacement of the zodiacal figure with the same name which belongs to the proper Arab heritage.

Roland Laffitte, Pantin, November 12, 2024.

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