

Sirius in the east, the seven stars of the Greater Bear in the north, Corvus in the west, and Argo in the south. He gives the latter's title as **Sata Vāsa**, the One Hundred Creators; all these imagined as forming a great cross in the sky. The differing Persian conception of this appears in the remarks on Regulus,—*a Leonis*.

The Chinese asterism **Tien Meaou** probably was formed from some components of Argo.

The constellation is noticeable in lower latitudes not only from its great extent and the splendor of Canopus, but also from possessing the remarkable variable η and its inclosing nebula.

Near the star z' Carinae appeared, between March 5 and April 8, 1895, a *nova* with a spectrum similar to those of the recent *novae* in Auriga and Norma.

. . . like a meadow which no scythe has shaven,
Which rain could never bend or whirl-blast shake,
With the Antarctic constellations paven,
Canopus and his crew, lay the Austral lake.
Percy Bysshe Shelley's The Witch of Atlas.

α Carinae, —0.4, white.

Κάνωβος, in the early orthography of the Greeks, apparently was first given to this star by Eratosthenes, but **Κάνωπος** later on by Hipparchos. Ptolemy used the former word, among his few star-names, which Halley and Flamsteed transcribed into **Canobus**; but now it universally is **Canopus**, Al Sufi's translator having **Kanopus** as an Arabian adaptation of the Greek.

Aratos, Eudoxos, and Hipparchos also, designated it as **Πηδάλιον**, the Rudder, Cicero's **Gubernaculum**, Aratos writing:

The slackened rudder has been placed beneath
The hind-feet of the Dog.

Ancient ships had a rudder on each side of the stern, in one of which our star generally was figured, thus differing from the modern maps that locate it in the bank of oars.

Strabo, the geographer of the century preceding our era, said that its title was "but of yesterday," which may have been true of the word that we now know it by; but an Egyptian priestly poet of the time of Thothmes III — 1500 years before Strabo — wrote of it as **Karbana**,

the star
Which pours his light in a glance of fire,
When he disperses the morning dew;

and this still was seen a millennium later in the **Kabarnit** of As-sur-ba-ni-pal's time.

Our name for it is that of the chief pilot of the fleet of Menelaos, who, on his return from the destruction of Troy, 1183 B. C., touched at Egypt, where, twelve miles to the northeastward from Alexandria, Canopus died and was honored, according to Scylax, by a monument raised by his grateful master, giving his name to the city¹ and to this splendid star, which at that time rose about $7\frac{1}{2}^{\circ}$ above that horizon.

The foregoing derivation of the word Canopus is an early and popular one; but another, perhaps as old, and more probable, being on the authority of Aristides, is from the Coptic, or Egyptian, **Kahi Nub**, Golden Earth. Ideler, coinciding in this, claimed these words as also the source of other titles for Canopus, the Arabic **Wazn**, Weight, and **Hadar**, Ground; and of the occasional later **Ponderosus** and **Terrestris**. Although I find no reason assigned for the appropriateness of these names, it is easy to infer that they may come from the magnitude of the star and its nearness to the horizon; this last certainly made it the *περίγειος* of Eratosthenes.

Similarly the universal Arabic title was **Suhail**, written by Western nations **Suhel**, **Suhil**, **Suhilon**, **Sohayl**, **Sohel**, **Sohil**, and **Soheil**, **Sahil**, **Sihel**, and **Sihil**; all taken, according to Buttmann, from Al Sahl, the Plain.

This word also was a personal title in Arabia, and, Delitzsch says, the symbol of what is brilliant, glorious, and beautiful, and even now among the nomads is thus applied to a handsome person. Our word Canopus itself apparently had a somewhat similar use among early writers; for Eden translated from Vespucci's account of his third voyage and *Of the Pole Antartike and the Starres abowt the Same*:

Amonge other, I sawe three starres cauled Canopi, wherof two were exceedynge cleare, and the thyrde sumwhat darke;

and again, after describing the "fourre starres abowte the pole":

When these are hydden, there is scene on the lefte syde a bryght Canopus of three starres of notable greatnesse, which beinge in the myddest of heaven representeth this figure * * ;

with more to the same effect in connection with the Nubeculae; for it is to

¹ Ancient Canopus is now in ruins, but its site is occupied by the village of Al Bekür, or Aboukir, famous from Lord Nelson's Battle of the Nile, August 1, 1798, and from Napoleon's victory over the Turks a year afterwards; and it is interesting to remember that it was here, from the terraced walls of the Serapeum, the temple of Serapis, that Ptolemy made his observations.

Serapis was the title of the great Osiris of Egypt as god of the lower world; his incarnation as god of the upper world being in the bull Apis.

these Clouds that the Canopus of Vespucci would seem to refer in much of his description. But I have never seen any explanation of this title as used by him, and Vespucci's fame certainly does not rest upon his knowledge of the skies. The great *New English Dictionary* erroneously quotes some of the foregoing as being references to our α Carinae, strangely ignoring this different use of the star's title.

Among the Persians Suhail is a synonym of wisdom, seen in the well-known Al Anwār i Suhaili, the Lights of Canopus.

A note to Humboldt's *Cosmos* tells us that this name was given to other stars in Argo, and Hyde asserted the same as to its use for stars in neighboring constellations. Thus he found Suhel Alfard, Suhel Aldabaran, and Suhel Sirius; in fact this last star, Karsten Niebuhr¹ said, was commonly known thus in Arabia a century and more ago.

The *Alfonsine Tables* had **Suhel ponderosus**, that appeared in a contemporary chronicle as **Sihil ponderosa**, a translation of **Al Suhail al Wazn**. In the 1515 *Almagest* it was **Subhel**; and in the *Græco-Persian Tables* of Chrysococca (the 14th-century Greek astronomer, author, and physician resident in Persia), edited by Bullialdus in his *Astronomia Philolaica*, it was $\Sigma\alpha\iota\lambda\lambda\ \iota\alpha\mu\alpha\nu\eta$. This was from the Arabs' **Al Suhail al Yamaniyyah**, the Suhail of the South, or perhaps an allusion to the old story, told in connection with our Procyon, that Suhail, formerly located near Orion's stars, the feminine Al Jauzah, had to flee to the south after his marriage to her, where he still remains. Others said that Suhail only went a-wooing of Al Jauzah, who not only refused him, but very unceremoniously kicked him to the southern heavens.

Another occasional early title was **Al Fahl**, the Camel Stallion. Allusions to it in every age indicate that everywhere it was an important star, especially on the Desert. There it was a great favorite, giving rise to many of the proverbs of the Arabs, their stories and superstitions, and supposed to impart the much prized color to their precious stones, and immunity from disease. Its heliacal rising, even now used in computing their year, ripened their fruits, ended the hot term of the summer, and set the time for the weaning of their young camels, thus alluded to by Thomas Moore in his *Evenings in Greece* :

A camel slept — young as if wean'd
When last the star Canopus rose.

And in a general way it served them as a southern pole-star.

¹ This Niebuhr was the noted Danish traveler in the East between 1761 and 1767, and subsequently the father of the great historian. His discoveries at Persepolis gave the clue to the decipherment of cuneiform inscriptions.

It was worshiped by the tribe of Tai, as it probably still is by the wilder of the Badāwiyy; and in this connection Carlyle wrote of it in his *Heroes and Hero Worship* :

Canopus shining-down over the desert, with its blue diamond brightness (that wild, blue, spirit-like brightness far brighter than we ever witness here), would pierce into the heart of the wild Ishmaelitish man, whom it was guiding through the solitary waste there. To his wild heart, with all feelings in it, with no *speech* for any feeling, it might seem a little eye, that Canopus, glancing-out on him from the great, deep Eternity; revealing the inner splendour to him.

Cannot we understand how these men *worshipped* Canopus; became what we call Sabians, worshipping the stars? . . .

To us also, through every star, through every blade of grass, is not a God made visible, if we will open our minds and eyes?

We do not worship in that way now: but is it not reckoned still a merit, proof of what we call a "poetic nature," that we recognize how every object has a divine beauty in it; how every object still verily is "a window through which we may look into Infinity itself"?

Moore wrote of it in *Lalla Rookh* :

The Star of Egypt, whose proud light,
Never hath beam'd on those who rest
In the White Islands of the West;

again alluding to it, in the same poem, as the cause of the unfailing cheerfulness of the Zingians.¹ And, as the constellation was associated on the Nile with the great god Osiris, so its great star became the **Star of Osiris**; but, later on, Capella and the scholiast on Germanicus called it **Ptolemaeon** and **Ptolemaeus**, in honor of Egypt's great king Ptolemy Lagos; and at times it has been **Subilon**, but the appropriateness of this I have been unable to verify. The *Σάμπιλος*, cited by Hyde as from Kircher, and so presumably Coptic, is equally unintelligible.

While all this knowledge of Canopus is ancient, it seems "but of yesterday" when we consider the star's history in worship on the Nile. Lockyer tells us of a series of temples at Edfū, Philae, Amada, and Semneh, so oriented at their erection, 6400 B. C., as to show Canopus heralding the sunrise at the autumnal equinox, when it was known as the symbol of Khons, or Khonsu, the first southern star-god; and of other similar temples later. At least two of the great structures at Karnak, of 2100 and 1700 B. C., respectively, pointed to its setting; as did another at Naga, and the temple of Khons at Thebes, built by Rameses III about 1300 B. C., afterwards restored and en-

¹ The inhabitants of Zinge, a large village forty miles northeast of Mosul, in Kurdistan, and not far from Kazwin.

larged under the Ptolemies. It thus probably was the prominent object in the religion of Southern Egypt, where it represented the god of the waters.

Some of the Rabbis have asserted—and Delitzsch in modern times—that this star, and not Orion, was the **H'asil** of the *Bible*, arguing from the similarity in sound of that word to the Suhail of Arabia, and from other reasons fully explained, although not accepted, by Ideler; while, coincidentally, there are able commentators who have thought that the Kesilim of *Isaiah* xiii, 10, now translated “Constellations,” means the brightest stars, which often are those now referred to in the use of the word Suhail. Delitzsch, in his commentary on the *Book of Job*, quotes much, from Wetzstein and others, of this identity of Canopus with H'asil, illustrating it with stellar stories and proverbs of the present-day Arabs of the Haurân, the patriarch's traditional home.

The Hindus called it **Agastya**, one of their Rishis, or inspired sages,—and helmsman of their Argha,—a son of Varuna, the goddess of the waters; and Sanskrit literature has many allusions to its heliacal rising in connection with certain religious ceremonies. In the *Avesta* it is mentioned as “pushing the waters forward”—governing the tides(?).

The late George Bertin identified it with **Sngi**, the Euphratean Chariot Yoke; but others claim that title for some stars in the zodiac as yet perhaps unascertained, but probably the *lucidæ* of Libra.

In China it was **Laou Jin**, the Old Man, and an object of worship down to at least 100 B. C.

Since the 6th century it has been the **Star of Saint Catharine**, appearing to the Greek and Russian pilgrim devotees as they approached her convent and shrine at Sinai, on their way from Gaza, their landing-place.

In early German astronomical books it was the **Schif-stern**, or Ship-star.

With Achernar and Fomalhaut, corresponding stars in Eridanus and Piscis Australis, it made up the **Tre Facelle** of Dante's *Purgatorio*, symbolizing Faith, Hope, and Charity,—

those three torches,
With which this hither pole is all on fire.

Hipparchos was wont to observe it from Rhodes in latitude $36^{\circ} 30'$; and, even before him, Posidonius¹ of Alexandria, about the middle of the 3d century before Christ, utilized it in his attempt to measure a degree on the earth's surface on the line between that city and Rhodes, making his ob-

¹ This Posidonius should not be confounded with the Stoic philosopher contemporary with Cicero, although the Stoic himself was somewhat of an astronomer, and, it has been said, the inventor of the planetarium.

servations from the old watch-tower of Eudoxos at Cnidos in the Asian Caria,—possibly the earliest attempt at geodetic measurement, as this observatory was the first one mentioned in classical days. Manilius poetically followed in his path by using it, with the Bear, to prove the sphericity of the earth.

The confusion in the titles of Canopus and Coma Berenices is noted under that constellation.

Lying $52^{\circ} 38'$ south of the celestial equator, about 35° below Sirius, this star is invisible to observers north of the 37th parallel; but there it is just above the horizon at nine o'clock in the evening of the 6th of February, and conspicuous from Georgia, Florida, and our Gulf States. Sirius follows it in culmination by about twenty minutes.

Canopus is so brilliant that observers in Chile, in 1861, considered it brighter than Sirius; and Tennyson, in his *Dream of Fair Women*, made it a simile of intensest light,—in Cleopatra's words,—

lamps which outburn'd Canopus.

Yet Elkin obtained a parallax of only $0''.03$,—practically *nil*,—indicating a distance from our system at least twelve times that of its apparently greater neighbor. Its spectrum is similar to that of the latter.

See discovered, in 1897, a 15th-magnitude bluish companion $30''$ away, at a position angle of 160° .

β , 2.

Miaplacidus is thus written in Burritt's *Geography* of 1856, but is **Maia-placidus** in his *Atlas* of 1835, the meaning and derivation of which I cannot learn, unless it be in part, as Higgins asserts in his brief work on star-names, from Miyah, the plural of the Arabic Mā, Water. The original, however, is better transcribed Mi'ah.

β lies in the Carina subdivision and is the α of Halley's Robur Carolinum, 25° east of Canopus, and 61° south of Alphard of the Hydra; but Baily said that he could find no star corresponding to this as Bayer laid it down on his map of Argo.

γ , Triple, 2, 6, and 8, white, greenish white, and purple,

was the Arabs' **Al Suhail al Muhlif**, the Suhail of the Oath, as with ζ and λ it formed one of the several groups **Al Muhlifain**, **Muhtalifain**, or **Muhni-thain**, by which reference was made to the statement that at their rising some