

The Colour of Sirius in Ancient Times

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SUMMARY

With the red Sirius debate in mind, this paper presents an overview of the reported colour of Sirius from around -1000 to $+635$.

The content, based on different cultural records of the world, focusses particularly on the constellations Canis Major, Canis Minor, Leo and Scorpius, and the reported change of orbit, colour, form and size of Hesperos, the Evening Star.

Sirius' star lore and ancient traditions are also presented.

1 RELATED FACTS SINCE HALLEY

Around 40 years after (Sir) Edmund Halley found that the position of Alpha Canis Majoris was different from that given in the *Almagest*, Thomas Barker (1760) asked: Was Sirius a red star in historical times? Barker's findings, based mostly on ancient Greek and Roman reports, point to a star coloured 'ruddy', 'reddish' and 'red'.

Sirius, as present-day observations indicate, is a bluish-white main-sequence star lying at a distance of 8.7 light-years. Its companion – Sirius B – was predicted in 1844 by Friedrich Wilhelm Bessel (Fig. 1), the German astronomer and mathematician, who started work as a ship's clerk.



FIG. 1. Friedrich Wilhelm Bessel aged 55. He called attention to the existence of 'dark stars', including the companion of Alpha Canis Minoris, the Little Dog. [Portrait from R. Engelmann's *Abhandlungen von F.W. Bessel* (1876).]

In 1851 the theoretical orbit of the companion to Sirius was calculated by C.A.F.Peters, director of the Altona Observatory. An orbital period of 50.10 years was determined. This figure, together with Arthur Auwers' estimate of 49.5 years, enabled T.H.Safford to locate Sirius B's position, where it was discovered in 1862 January 31, by Alvan G.Clark, the US telescope maker.

In the *Astronomische Nachrichten*, Professor G.P.Bond (1862) of Harvard College Observatory covered the event as follows:

An interesting discovery of a companion to Sirius was made on the evening of Jan. 31 by Mr. Clark with his new object-glass of eighteen and a half inches aperture.

I have been able to observe it with our refractor of fifteen inches, as follows:

1862, Feb. 10, Angle of Position	$85^{\circ}15' \pm 1^{\circ}1'$
Distance	$10''.37 \pm 0''.2$

When the images are tranquil the companion is distinctly enough seen, but these moments are quite rare, as the low altitude of Sirius exposes it to almost continued atmospheric disturbances.

Bond remarked:

The discovery is a very strong testimonial to the excellence of the new object-glass.

Around 52 years later, at Mt Wilson observatory in southern California, there followed a spectral study by Walter S.Adams. Sirius B was found to be a white or yellow-white star of the early F type.

According to present-day accepted theory, white dwarfs – like Sirius B – could be shrunk cores of red giant stars. With a shrivelling-up red giant in mind, Kenneth Brecher (1977), Associate Professor of Physics at the Massachusetts Institute of Technology, put up the following scenario as a possible explanation of why red was among the colours of Sirius in historical times. Did skywatchers around 2000 years ago see Sirius B turn from red to white? Physics Professor Philip Morrison (1981) thinks it's possible – although he doubts it.

As there seems to be no acceptable stellar evolutionary explanation, Brecher also put up options for why red relates to or could be a characteristic colour of Sirius A.

- (1) Perhaps Sirius A underwent a transfer of mass, and a fraction of that mass went over to Sirius B, causing the colour of the white dwarf to become temporarily red.
- (2) An interstellar dust cloud passed in front of Sirius A and acted as a red filter.
- (3) Atmospheric absorption and scintillation caused Sirius A to glint red.

Are these options plausible? As Brecher admits, the first is highly unlikely, the second is problematic, and the third is plausible if ancient skywatchers looked at Sirius A only when it was rising and low on the horizon.

We turn now to other papers offering explanations of why Sirius A would have appeared red. Of interest are publications by See (1892, 1926), Stentzel (1927), Schönberner (1983), van Ghent (1984, 1987, 1989), Tang (1986), Le

Boeuffle (1987), McClusky (1987), Ridpath (1988) and Ceragioli (1992). In particular, van Ghent (1984, 1989) – like Boll (1917) and Gundel (1927) – cites atmospheric extinction when Alpha Canis Majoris was rising heliacally and close to the horizon. Metaphor may also be apt, according to Le Boeuffle (1987). In addition, as Ceragioli (1992) asserts, lyssa, a mythical golden wolf, and Mars should not be overlooked.

Regarding papers and books keeping alive the possibility of a historically red Sirius B, it is worthwhile to read the opinions of Cornell (1981), Schlosser & Bergmann (1985, 1987), Bruhweiler, Kondo & Sion (1986), Joss, Rappaport & Lewis (1987), Bicknell (1989), Fernie (1989) and Gry (1990).

2 HISTORICAL EVIDENCE ON COLOUR

We now deal with the historical reports of the ancients. The earliest known reference to Sirius' colour figures in an Assyrian report about Aššur-bel-kala, a monarch who ruled from *c.* –1073 to –1056. Later evidence for the colour of Sirius can be found in the ancient records of the Chinese, Egyptians, Iranians, Greeks and Romans.

The historical record, in fact, presents some fascinating colours, including black, gold, green, blue, white and red. Some of these colours might relate to lunar eclipses, an eclipsing binary, comets and other meteorological appearances (Gundel 1927).

An overview of the colours now follows.

2.1 *Fiery and multicoloured star*

According to Geminus (1975), *c.* –70 writer of elementary astronomy textbooks, *kyon*, the dog, has the same nature as all the other fiery and clear stars. Geminus, who classifies *kyon* as an 'ordinary' star, adds that it is not the cause of the intense heat of the dog days, for it marks the season of the year when the Sun's heat is the greatest.

With Geminus' statement in mind, we turn now to the ancient Greek usage of κύων (*kyon*) and σεῖριος (*seirios*). *Kyon* (Canis in Latin) not only signified the bright star Alpha Canis Majoris, but also designated the stars within Canis Major, the Big Dog. Additionally, *kyon* was brought into connection with Orion, Kybele, Erigone, Asklepius and Europa. The constellation Orion, in which shines the red supergiant Betelgeuse, lies close to the Milky Way, followed by two dogs, Canis Major and Canis Minor. Kybele – like Erigone – is placed in the zodiacal constellation Virgo. Asklepius, whose dog had formerly been the companion of Malealas, was a mythological name of Ophiuchus, a large equatorial constellation near Scorpius. Lastly, Europa, companion of Zeus Asterios (bright sky in relation with stars), seems to personify the Moon and was pictured riding on an astral bull (Cook 1914). In the various versions of the *dodecaoros*, the Bull is brought into connection with the Dog. Interestingly, Macrobius (1990) points out that the Dog star is not visible when the Sun is close to Taurus.

We pass now to the meaning of *seirios* (Sirius in Latin). Used since the time of Hesiod, the Greek poet who lived around –700, it signifies ‘hot’ and ‘scorching’. There is also evidence from Archilochus (–680 to –640) that it was a title for the Sun. By *c.* –550, the time of Ibycus, the meaning of the word had developed into ‘all bright stars’. In addition, we should not overlook ‘sun and dog star’, which appeared with Hesychius, a fifth-century Alexandrian lexicographer.

Noting the fact of ancient data pointing to more than one dog star in the sky, of interest is κύν Ὠρίωνος (dog of Orion). In the *Iliad* (xxii, 25–29), Homer refers to its appearance at the time of late harvest. Although the reported destructive and fiery fever attributes of this asterism compare to those of a meteor or comet, D.R.Dicks (1985) identified Orion’s dog with Alpha Canis Majoris, having its cosmical setting at around 800 BC November 22.

In the *Iliad* (xxii, 25–29) also, Homer compares Achilles to Orion’s dog. Achilles, whose earlier name was Liguron, is associated with the Hesperides, a fantastic country brought into relation with the Evening Star. From the point of view of additional stellar associations, the name Liguron should be considered. Meaning ‘clear sound’, it may also be used in the context of ‘flexible, of dogs’ tails’. This brings to mind *kynosoura* (tail of the Dog), namely the constellation Ursa Major or Ursa Minor.

Ursa Major, according to ancient Egyptian data, belonged to *Sth* (Seth). Like the dog of Orion, the character of Seth is linked with destruction. Seth, at the time of the Egyptian monarch Ramses VI, *c.* –1147, was equated with Mercury, the evening star. However, we should not overlook Venus as evening star which, according to Pliny (1958), was called Isis.

Earliest Egyptian records referring to Isis as evening star date from –2355 to –2322, the time of the Pyramid Texts (Budge 1934). In late times, Egyptian records mention that Isis was born as a dark red woman. Her birth was brought in relation with the heliacal rising of *spd.t* (Sopdet). According to Richard Parker (1950, 1974), the heliacal rise of Sopdet, called Sothis by the Greeks, had been observed in ancient Egypt for the purpose of drawing up the lunar calendar.

The Egyptian year began with the month of Thoth, which fell at the time of the rising of Sopdet, ‘bringer of the New Year and Nile flood’. Although in late times the ancient Greeks occupying Egypt regarded Sopdet–Sothis as the Dog Star Sirius, it is important to note that there is no supporting hieroglyphic evidence to indicate that Sopdet signified ‘dog’. Sopdet apparently meant ‘sharp’, ‘pointed’ (Kákosy 1984).

We pass now to ποικίλος (*poikilos*), a Greek term signifying ‘changing colour’, ‘multicoloured’, ‘many-spotted’. It was used by Aratus of Soli and Theon of Alexandria for magnitudes of stars within the constellation Kyon, the Big Dog. Additionally, Ptolemy and Vettius Valens used this term to describe the colour effects of the Moon, Venus and Mercury (Boll & Bezold 1915).

Venus and Mercury, the morning and evening planets seen never far from the Sun, are of relevance. The double (morning/masculine + evening/feminine) aspects of Venus compare to the double gender of Sopdet–Sothis in astral form. It was not until the end of the sixth century that the morning

and evening stars were regarded to be one planet. This is a fact of some importance, especially when taking into account a quoted report on Venus as evening star in earlier times having changed orbit, form, colour and size (Augustine 1972). The Evening Star, as mentioned earlier in this section, was called Isis. One of the aspects of Isis is the star Sopdet–Sothis, herald of the Nile flood.

The sudden change in the colour, appearance and orbit of the Evening Star, as quoted by Augustine, is based on the scholarship of Varro, “the most learned of the Romans”. Varro apparently took the details from Castor of Rhodes, a rhetorician who published a chronology of Oriental, Greek and Roman history. In addition, as comes forward in Augustine’s quoted account, Varro referred to Adrastus of Cyzicus and Dion of Naples, “well known mathematicians”, who linked the Evening Star’s unexpected change in form, colour and orbit to the time of Ogygos or Ogyges. According to Greek tradition, Ogygos or Ogyges was the ancient founder and king of the Boeotian region of Thebes. The ‘earliest’ known Boeotian flood and pestilence took place during his reign. Thebes in Boeotia, as Eratosthenes points out, was protected by Lailaps, dog of Prokris, who was later placed into the sky as Kyon. Lailaps was also the companion of Kephalus, father of Ἠώς (the Evening Star).

The Evening Star was called Phaethon, according to Hesiod and Scholia BP Germanicus. Reports of Phaethon’s sudden change in orbit and colour bring to mind a supernova burst or flames of a shooting star. When struck by lightning, Phaethon scattered light and fell into the river Eridanus, causing heat and drought – hallmarks of old beliefs of humankind about Sirius. In astromythology, Eridanus represented the celestial Nile which, according to Eratosthenes, stretched from Canopus to Orion.

One recalls here the fiery and destructive dog of Orion. This star, as Homer recounts, shone bright when it rose from Okeanos–Ocean. From the same ocean appeared Seirios, the ‘scorcher’ and bringer of pestilence, according to Apollodorus of Rhodes (c. –295 to –247).

As pointed out in an earlier paper of mine, Ocean and Seirios have something in common with AB-ZU and DAM-GAL-NUN-NA of the Sumerians, as well as with ancient Egyptian *Nwt* (Nut) and *d3.t* (Dua.t). DAM-GAL–NUN-NA received the title of queen of the AB-ZU (apsû in Akkadian), an ocean where there are zones of ‘heavenly birds’ and ‘terrestrial fish’. The creatures of these zones compare to the setting stars of Nut entering the Dua.t. Nut’s stars enter as ‘birds’, become ‘fish’ and afterwards shed their impurities to Earth (Neugebauer & Parker 1960–67). Although the final meaning of all this is not fully known, here we have prototypes or echoes of Phaethon and Seirios as ‘scorcher’ sending flames of fire down to Earth.

2.2 *Blue star*

Rufus Festus Avienus, fourth-century Latin writer on geography and astronomy, cites blue as the colour of Sirius (Aratea Phenomena, 1376). This colour brings to mind not only the present-day bluish-white main-sequence

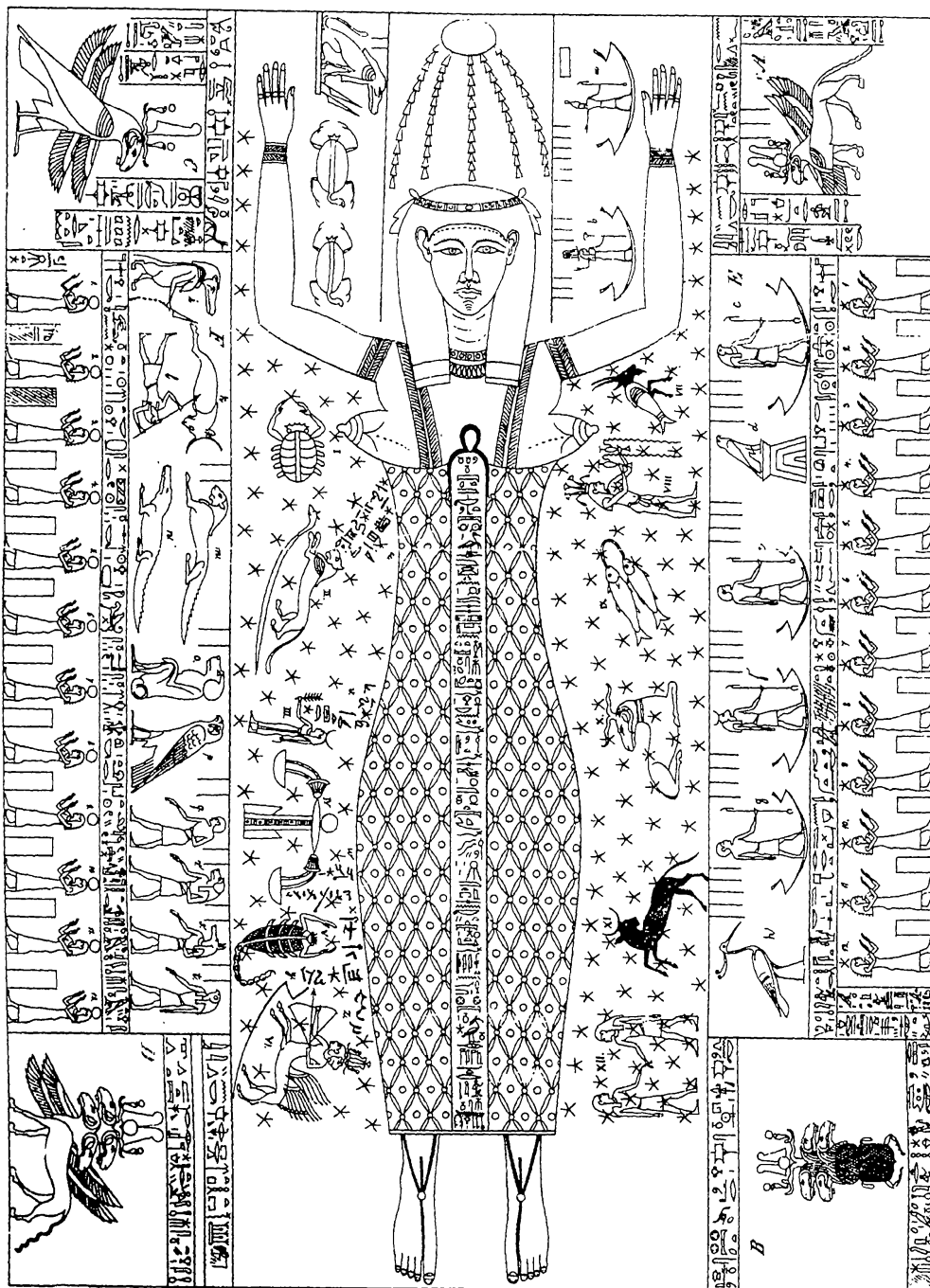


FIG. 2. Ancient Egyptian representation of stars, planets and cosmic regions. Sirius-Sothis is shown on the left-hand side of the head of Nwt. (From H. Brugsch 1860.)

star Alpha Canis Majoris, but also the reported quivering of the fire that sparkled in the sea-blue face of Canicula, the Dog (Manilius, *Astronomica*, I,411). Canicula is the Latin name given to the constellations Canis Minor, the Little Dog, and Canis Major, the Big Dog. It was also used as a designation of Alpha Canis Majoris.

According to Icelandic reports, blue – despite the fiery appearance of Loka

brenna – is the colour of blástjarna, the star Sirius (Reuter 1934; Scherer 1953). Blue also turns up in the Metropolitan Museum of Art, New York, where Tianlang, a blue wolf representing Sirius, is shown on an ancient Chinese mortuary vessel from early Western Han times (c. –205).

In ancient China, blue not only symbolized the heaven of the Han, but also was one of the five primary colours paired with the five elements as principles of the five planets. For example, blue represented the element water. Chen xing (Mercury), correlated with cardinal point north and the cold season, was the corresponding planet. Some of these data furthermore tie in with a report made by Sophocles, who drew attention to the cold season marked by the early set of Sirius (Gundel 1927).

In addition, it is interesting to note Chen xing, the Hour-star Mercury, as essence of Wang-shi, a comet or meteor in the shape of a curved arrow. Of related interest is the association of Wang-shi with the dog of Er lang, one of eight comets (Eberhard 1968).

Meteors or comets also figure in the astromythology of the ancient Egyptians. Mercury, for instance, was equated with *Sth* (Seth), a sky god of the dog days, identified with the Evening Star, constellation Ursa Major, and a comet with the appearance of a curled-up snake.

With dog, comet and Sirius in mind, it is useful to turn to *Meteorologica* (I, vi). Aristotle reports that he had observed a dim tailed star in the thigh of Kyon, the Dog. Perhaps Delta Canis Majoris (HD 54605) is meant. HD 54605 was also part of a group forming ^{mul}BAN, the Babylonian constellation of Bow and Arrow. In ancient Egypt the bow and arrow were attributes of Satis, Goddess of Elephantine, who in late times was equated with Sopdet–Sothis ('sharp', 'pointed'). The factor of bow and arrow also turns up in the astronomy of ancient China. Forming Hou ji, a group of nine 'red' stars called bow and arrow, Delta Canis Majoris lay south-east of Tianlang, the wolf representing Sirius. Eight of these red stars formed the celestial bow; the ninth made the shape of an arrow (Fig. 3). HD 54605 appeared where the arrow lies on the bow. The arrow, in fact, was directed towards Tianlang. In a commentary about these red stars, the late Gustav Schlegel (1875) drew attention to the wolf, that is, Alpha Canis Majoris, guiding summertime hunters along the trail to the habitats of other animals.

2.3 White star

In *De Natura Rerum*, Isidore de Seville (1960), Spanish bishop from 602 to 636, points out that the colour of Sirius is white. This ties in with the bright or dazzling white Sirius on the tongue of Canis, the Dog, as reported by Gaius Julius Hyginus (1983), Roman scholar and librarian of the Palatine Library.

Other evidence of white comes from Hephaistion of Thebes (1973), a pagan or unorthodox Christian, who cited white as one of the colours of kyon, the dog star, when it appeared on the eastern horizon. Hephaistion lived in ancient Egypt, where the colour white was linked with moonlight, and where, as surmised by Richard Parker (1950), the lunar calendar was reckoned by the heliacal rise of Sopdet–Sothis, dekanal leader and bringer of the Nile flood.

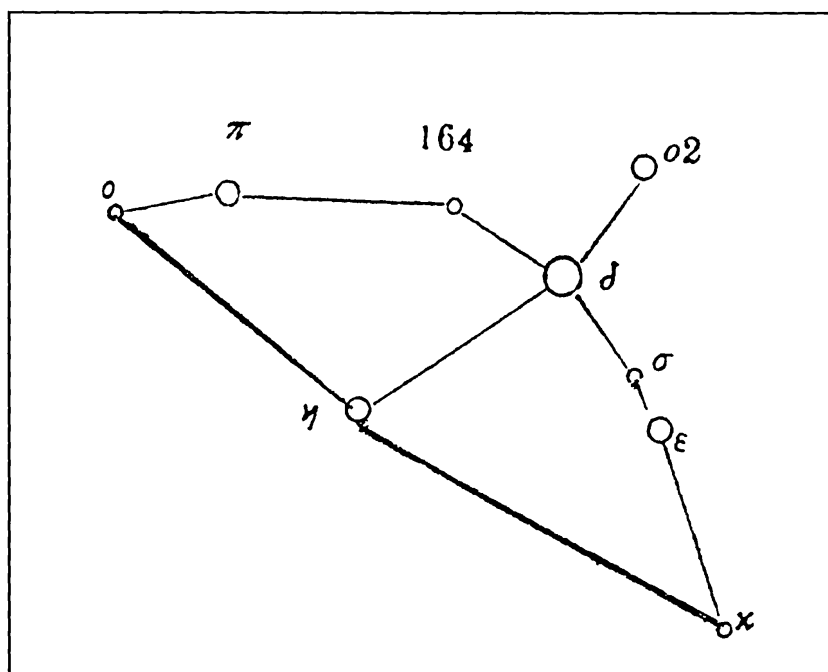


FIG. 3. Hou ji, a group of nine 'red' stars called bow and arrow. [Illustration from G. Schlegel's *Uranographie Chinoise* (1875).]

Sopdet's companion was called Sopdu, 'Lord of the East'. Perhaps there is an analogy here with Tišhtrya, 'General of the East', the ancient Iranian white or red stellar object as leader of stars and bringer of rain. Tišhtrya is identified with the star Sirius or Alpha Canis Majoris (Zaehner 1961; Filliozat 1969).

We turn now to ancient China, where links between Alpha Canis Majoris and the colour white existed in the following way. "When Tai bai (Venus) is white it resembles the star Lang (Sirius)". Details of this can be found in Edouard Chavannes' (1898) translation of Sima Qian's Historical Records. Additionally, we should not overlook Tai bai as the essence of the white meteor or comet Tiangou, the Celestial Dog (Rufus & Hsing-Chih.Tien 1945). According to Giles, Tiangou is in Argo (Aston 1956).

Lastly, when reading Geoffrey Chaucer's 'A Treatise on the Astrolabe', it is interesting to consider the whiteness of al-'Abur, "Sirius, the one who has crossed the Milky Way".

2.4 Black star

The colour black is usually associated with planet Saturn and Anubis. It is also one of the colours of kyon, the dog star, according to Hephaistion of Thebes (1973).

2.5 Yellow star

In W.M.Makemson's (1941) book about Hawaiian star lore, kaulua-lena (Sirius) is listed as a yellow star. Eos, a luminary shown together with Kephalus and his dog, has also yellow or yellow saffron as its colour (Bloesch

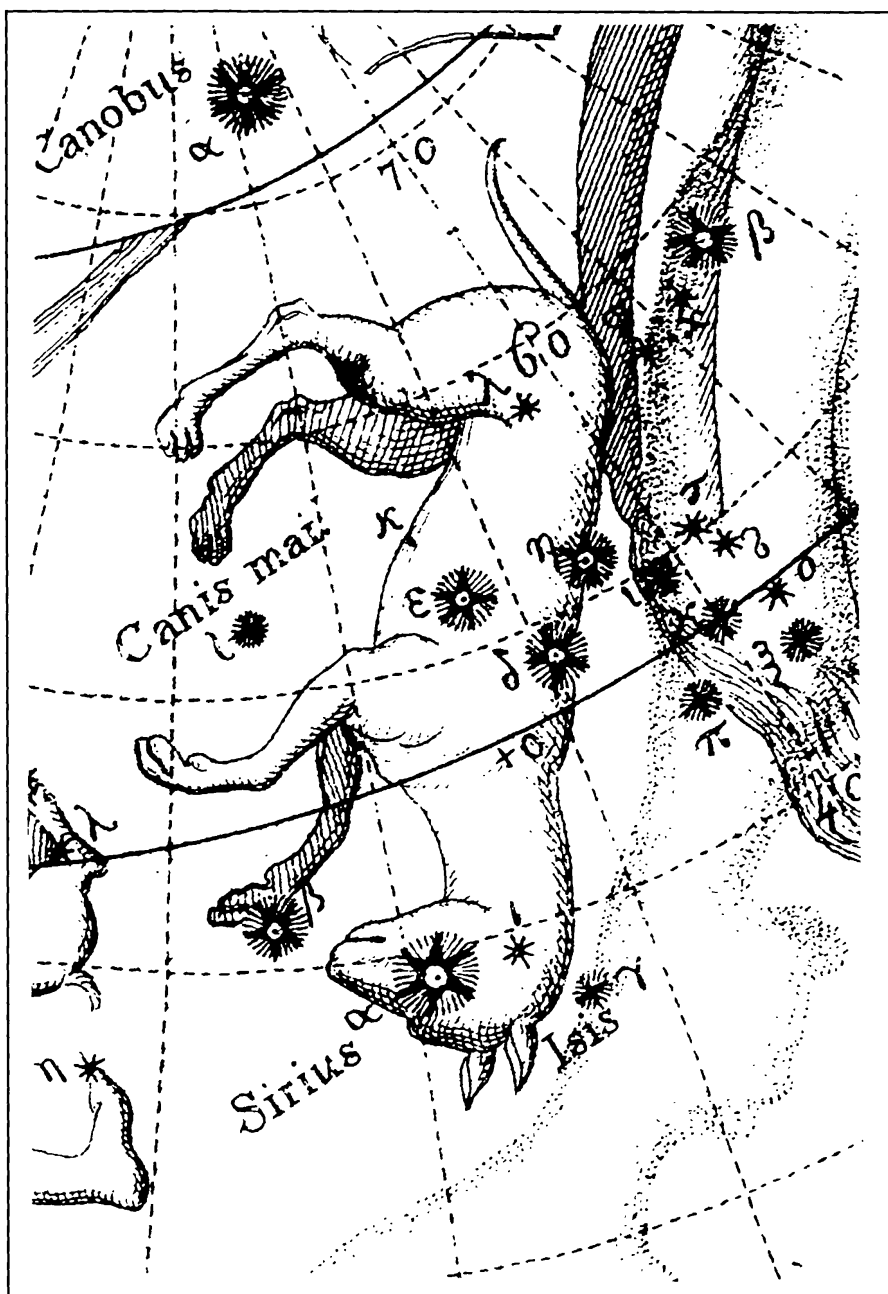


FIG. 4. Part of a sky map showing the stars Isis and Sirius. Thomas Barker pointed out that “Eratosthenes and Hyginus both speak of the stars in the Dog’s head, as though worthy of particular names.” [Representation from Schaubach’s *Eratosthenis Catasterismi* (1795).]

1982). At the head of Kephalus' dog, according to Eratosthenes (1795), is a star called Isis (Fig. 4).

The colour of Isis was yellow, according to Neugebauer & Parker (1960–67). In the Late Period, there are images of Isis with seven stars around her. She sits upon a dog. Such images bring to mind URKU, an Assyrian name given to a group of seven stars called Star of the Dog (Weidner 1927). This number of stars also brings to mind Krttikāh, a constellation containing

the following asterisms: Ambā, Dulā, Nitatnī, Abhrayantī, Megayantī, Varṣayantī and Cupuṇikā (Kirfel 1920). Agni ('Fire'), the astral regent of Ḳrttikāḥ, is also co-regent of Alpha, Sigma and Tau Scorpii. Two of these stars – Sigma and Tau Scorpii – appeared as yellowish objects in the night sky. According to ancient Iranian starlore (Hess 1933), both stars mark the yellowish-golden ears of the red or white horse of Tišhtrya (Sirius).

Other indications of yellow as the colour of Sirius come forward in the following way. At the Heraion in Samos, an island off the coast of present-day Turkey, has been excavated an ancient altar dedicated to Hera. Yellow-saffron, according to Handschur (1970), was the colour of Hera, whose titles include – like those of Hathor–Sothis – 'queen of heaven' and 'the goddess of the stars'. Additionally, there is evidence that the ancient altar was aligned with the early rise of Sirius (Walter 1965).

2.6 Gold star

Gold is one of the colours of kyon, the dog, according to Hephaistion of Thebes. Gold is also the colour of Hathor, 'Lady of Sothis'. The rising of Sothis fell on 1 Thoth once every 1460 Julian years.

2.7 Green star

Hephaistion also registered green as a colour of kyon. Green brings to mind malachite, a source of copper, associated with Sopdet–Sothis.

2.8 Purplish-red star

According to Columella (1955), a Spaniard from Gades (present-day Cadiz), the purplish-red colour of roses compares to fiery Mars, the shine of Sirius, and the glow of the Evening Star (*De Re Rustica*, x, 286–289). Mentioning of roses brings to mind not only the rosy and yellow-saffron colours of Eos, but also the rose of In-ni-ni or Nana. An Elamite seal from Susa, dating from c. –2750, shows In-ni-ni or Nana in an astral scene with dogs, lions and bow. During the times of the neo-Sumerians, In-ni-ni or Nana was equated with Venus, the morning and evening star.

2.9 Copperish star

The main star of ^{mul}KAK-SI-DI, namely Alpha Canis Majoris, is mentioned in an Assyrian report about the activities of Aššur-bel-kala (c. –1073 to –1056). The text refers to the rising of ^{mul}KAK-SI-DI at the time of cold, frost and ice, and that the observed colour was red like molten copper (Gössman 1950; Grayson 1976). The importance of this text is well known, but, in order to be impartial, we should also take into account "reddish-white like copper", an interpretation put forward by Peter Jensen (1890) and Franz Kugler (1907). Sirius, as Jensen and Kugler pointed out, revealed itself in the white shining Ishtar–Venus.

Copper, the element consecrated to Ishtar–Venus, was also the colour shine of Sārameya, the four-eyed dogs of Yama. The mother of these copper-

coloured dogs was called Saramā, ‘Swift one’ or watch dog. In fact, the name Saramā is derived from *sr*, ‘to move’, which brings to mind Latin ‘acer’, an adjective signifying ‘sharp, pointed, fiery’, which was used to describe swift-rising or ardent constellations or stars close to the celestial equator (Le Boeuffle 1987). The adjective *acer* was applied to Leo, Scorpius and the star Sirius. Interestingly, in ancient Egypt the term Sopdet signified ‘sharp’, ‘pointed’.

2.10 Red star

Astronomical records of the Babylonians associate Sirius’ colour with the brightness of Jupiter and the redness of Mars (Gundel 1927). Also, Ptolemy (*Tetrabiblos*, I, 9; II, 9) cites the same planets and colours for the star in the mouth of Kyon, the Dog. Although Jupiter is a yellowish object in the night sky, from the point of view of ancient skywatchers this spelt out the colours white/bright and red. Additionally, Germanicus Julius Caesar (*Phaenomena*, 333–340) mentions that a flame was vomited out of the mouth of Sirius. The colour of that flame is not specified.

In the *Almagest*, however, the term ὑπόκιρρος characterizes Sirius’ colour. Hypokirros signifies not only ‘reddish’ but also ‘yellow’. As there is more than one colour, this could explain why ‘Abd al-Rahmān b. ‘Umar al-Ṣūfī’s ‘Book of fixed Stars’, an astronomical work based on parts VII.5 and VIII.1 of the *Almagest*, is silent about the colour of Sirius.

We turn now to martian red. Planet Mars, ‘Lord of Sirius’, was brought in relation to Seth (Gundel 1927, 1936). In late times Seth was pictured as an astral red dog. Because of a tradition of destruction and violence, the Greeks equated Seth with Typhon, a chaotic force described as a spiral-like comet with fiery shine.

It is in the setting of comets and Sirius that we turn next to ancient China, where red hui (comets) were classified as an essence of Mars (Ho Peng Yoke 1966). Into this also plays xin – celestial Temple of Mars, the stellar identification being Alpha, Sigma and Tau Scorpii. The redness of Alpha Scorpii compared to one of the colours of Tai bai (Venus), according to Historical Records, edited by Sima Qian. The stars Sigma and Tau Scorpii – as pointed out in Section 2.5 – match the yellowish-golden ears of the red or white horse of Tīshtrya (Sirius).

Of interest now is an ancient festival held in Rome at the end of April or beginning of May. Called Augurium Canarium, the date was fixed by the Pontifices. Reddish dogs were sacrificed when the star Sirius appeared. In later times this festival seems to have been closely associated with the Robigalia, which fell on April 25 (Fowler 1925). On that day a dog and a sheep were offered to Robigus or Robigo. In *Fasti* (IV, 904–910), Ovid associates the rites of this festival with the constellation Canis, the Dog. If Ovid had in mind the appearance of Alpha Canis Majoris, then it seems he had confused the rise with the set of Sirius.

In the same manuscript, Ovid draws attention to the constellation of the Icarus dog. The dog of Icarus, in fact, was called Maera, the Sparkler or Sparkling one. Maera, after having found the body of Icarus, was placed into the sky as Kyon, the Dog. Problems arise, however, when Maera is equated

with Canicula or Canis, Latin names of the constellations Canis Minor and Canis Major.

Canis, according to Cicero (1972), was announced by a ruddy bright light under the feet of the Hunter. Rutilus, the word used to describe that colour, also characterized the colour of Ares, Leo, Virgo, Cygnus, Corona Borealis, Orion, Canis Minor, Mars, Venus and the setting Sun (Le Boeuffe 1987).

In another manuscript, Cicero points out that the rising of Canis had been observed, once each year, by the people of Ceos. He adds that the dim or clear and brilliant appearance of the star served as an omen for pestilence or good health.

Although Ceragioli (1992) asserts that the rising of this star relates to wolves and red Mars, it is interesting to note that, according to fable, a lion took possession of Ceos. As a symbol, the lion corresponds principally to the element fire (red, brilliance) as well as to the passage of the Sun into the zodiacal sign of Leo during the dog days. Lion and dog, as Manilius and Seneca mention, relate to hot and dry weather at the time of Sirius.

Additionally, we should not overlook references to red or bright red Canis or Canicula, the Dog, in the manuscripts of Horace (*Satires*, II, 5, 39), Seneca (*Naturales Quaestiones*, I, 1, 6–7), Sextus Pompeius Festus (*Fragmenta*) and Rufius Festus Avienus (*Arati Phaenomena*, 727). This colour, however, must be put against the fact of the word Canicula or Canis used as a name for Alpha Canis Majoris, Procyon and other dogs in the sky.

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