

those in the right wing are consecrated to the Appeased Deity, and those in the left, to the Retiring of the waters in the time of the Deluge.

Heis locates α and β in the back; ν^2 in the right wing, and ϵ in the left. θ and κ were included by Kazwini in the Arabic figure **Al Kurud**, the Apes.

In China they were **Sun**, the Child; λ being **Taze**, a Son; and the near-by small stars, **She**, the Secretions.

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The streaming tresses of the Egyptian queen.

William Cullen Bryant's *The Constellations*.

Not Berenice's locks first rose so bright,
The heavens bespangling with dishevell'd light.

Pope's *Rape of the Lock*.

Coma Berenices, Berenice's Hair,

the **Chevelure** of the French, **Chioma** of the Italians, and the **Haupthaar** of the Germans, lies southwest from Cor Caroli.

It seems to have been first alluded to by Eratosthenes as **Ariadne's Hair** in his description of Ariadne's Crown; although subsequently, in his account of Leo, he mentioned the group as Πλόκαμος Βερενίκης Ἑνεργετιδος. But for nearly 2000 years its right to a place among the constellations was unsettled, for it has been the *αὐρόρωσι* behind the Lion's tail, or connected with Virgo, or partly recognized as an asterism by itself. Tycho, however, set the question at rest in 1602 by cataloguing it separately, adopting the early title as we have it now.

Aratos, perhaps, alluded to it, although indefinitely, in the 146th line of the *Phainomena*:

Each after each, ungrouped, unnamed, revolve;

but, of course, did not give its name, for he wrote under the 2d Ptolemy (Philadelphus), whereas it was not known till about 243 B. C., in the reign of the 3d (Euergetes), the brother and husband of Berenice, whose amber

hair we now see in the sky figure. It was the happy invention of this constellation by Conon that consoled the royal pair after the theft of the tresses from the temple of Arsinoë Aphrodite at Zephyrium. Some versions of the story turned the lady's hair into a hair-star, or comet.

The scholiast on Aratos, however, referred to it, as did Callimachus, the latter calling it Βόστρυκος Βερενίκης;¹ and his poem on it, now lost, was imitated 200 years later by Catullus, in one of his most beautiful odes, describing it as

the consecrated spoils of Berenice's yellow head, which the divine Venus placed, a new constellation, among the ancient ones, preceding the slow Boötes, who sinks late and reluctantly into the deep ocean.

The beautiful and touching legend of the Sudarium of Veronica, with its *vera icon*, has been associated with our constellation from the similarity in words, some supposing the saint to have been the Herodian Bernice,—in Latin Beronica,—converted to Christianity through her sympathy for the Saviour's sufferings. Lady Eastlake has fully told this story in her continuation of Mrs. Jameson's *History of our Lord*.

Hyginus had Βερενίκης πλόκαμος; and Ptolemy, simple πλόκαμος for three of its stars among the ἀμόρφωτοι of Leo, calling it νεφελοειδής συστροφή, a cloudy condensation. This was rendered **Al Atha** by Reduan, or, as Golius printed it, **Al Ultha**, literally a Mixture.

Manilius did not mention Coma, although he wrote 250 years after Conon; nor of course did the versifiers of Aratos, at least by name, as the figure is not distinctly specified in the *Phainomena*.

Crines and **Crines Berenices** are found in classical times; Flamsteed has the plural **Comae Berenices**, and La Lande **Capilli**. **Cincinnus** appears on Mercator's globe of 1551, but there consists of only one star and two nebulae; and the *Latin Almagest* of the same year wrote *Convolutio nubilosa quae cincinnus vocatur*, with this marginal note, all for Coma's stars as *informes* of Leo: *Plocamos graecē, latinē vero cincinnus, hoc est, caesaries & coma virginis, Berenices fortasse crinis qui ā Porta Calimacho in astra relatus est. Sed cincinnum barbari tricam vocant.* The *Almagest* of 1515 already had **Trica**, describing it as *nubilosa* and *luminosa*; but Bayer

¹ The word Berenice, sometimes Beronice, is from Βερενίκη, the Macedonian form of the purer Greek Φερενίκη, Victory-bearing; and is the Βερίκη, or Bernice, of the *New Testament*, the name of the notorious daughter and wife of the Agrippas. From it some philologists derive the Italian *Vernice*, the French *Vernis*, the Spanish *Barniz*, and our *Varnish*, all from the similar amber color of the lady's hair; Βερενίκη having later become the Low Greek word for amber.

changed this to **Tricas**, **Tericas**, and **Triquetras**, taking these probably from the Low Greek *τριχες*, which doubtless is the origin of our word "tresses."

Pliny wrote in the *Historia Naturalis*: *nec [cernit] Canopum Italia et quem vocant Berenices crinem*, which Bostock and Riley correctly translated, in 1855, "nor can we, in Italy, see the star Canopus, or Berenice's Hair": but Holland had rendered this, in 1601, "neither hath Italy a sight of Canopus, named also Berenices Hair," from which mistranslation it was long inferred that the southern heavens contained another sky group bearing this same title. And this blunder has been perpetuated, even in Doctor Murray's *New English Dictionary*, which defines the word as the name "formerly of the southern star Canopus," citing as authority the foregoing passage from Holland. Pliny's statement as to the invisibility of Coma from Italy of course was incorrect then as now.

Julius Schiller asserted that the constellation represented the *Flagellum Christi*.

Thompson writes in his *Glossary*, p. 134, that

It has been suggested by Landseer, *Sabæan Researches*, p. 186, from the study of an Assyrian symbolic monument, that the stars which Conon converted into the Coma Berenices (Hygin. *P. A.* ii, 24, cf. Ideler, *Sternnamen*, p. 295) and which lie in Leo opposite to the Pleiades in Taurus, were originally constellated as a Dove; and that this constellation, whose first stars rise with the latest of those of Argo, and whose last rise simultaneously with the hand of the Husbandman, links better than the Pleiad into the astronomical Deluge-myth. The case rests on very little evidence, and indeed is an illustration of the conflicting difficulties of such hypotheses: but it is deserving of investigation, were it only for the reason that the Coma Berenices contains seven visible stars (Hygin.), and the Pleiad six, a faint hint at a possible explanation of the lost Pleiad.

Serviss, who has some beautiful stellar similes, says that it is a

curious twinkling, as if gossamers spangled with dewdrops were entangled there. One might think the old woman of the nursery rhyme who went to sweep the cobwebs out of the sky had skipped this corner, or else that its delicate beauty had preserved it even from her housewifely instinct.

In *Hudibras* the constellation was **Berenice's periwig**; while another old-fashioned name has been **Berenice's Bush**, found in Thomas Hill's *Schoole of Skil* of 1599, but even then rendered classic in its use by Chaucer and Spenser; and Smyth says that there has been a name still homelier.

Bayer also mentioned **Rosa**, a Rose, or a Rose Wreath; but he figured it on his plate of Boötes as a **Sheaf of Wheat**, in reference to the Virgo Ceres close by; indeed, Karsten Niebuhr, at Cairo in 1762, heard it called **Al Huzmat**, the Arabic term for that object, or for a Pile of Fruit, Grain,

or Wood. The Dresden globe has it as an **Ivy Wreath**, or, just as probably, a **Distaff** held in the Virgin's hand, which has been designated *Fusus vel Colus*, *Fila et Stamina*, the Distaff, Thread, and Woof; or perhaps the **Caduceus** of Mercury, placed here when Coma was a part of Virgo and this latter constellation the astrological house of that planet.

But very differently in early Arabia it was **Al Hand**, the Pond, into which the Gazelle, our Leo Minor, sprang when frightened at the lashing of the Lion's tail; although some of the Desert observers claimed that this Pond lay among the stars of the neck, breast, and knees of the Greater Bear; and Lach substituted it for the Gazelle in our location of Leo Minor. The Arabian astronomers knew Coma as **Al Halbah**, or **Al Dafirah**, the Coarse Hair, or Tuft, in the tail of the Lion of the zodiac, thus extending that figure beyond its present termination at the star Denebola.

Coma probably was known in early Egypt as the **Many Stars**.

The Chinese had several names here; the *lucida* being **Hing Chin**; *u* and *w* in the Reeves list, **Chow Ting**, the Imperial Caldron of the Chow dynasty; a small group toward Virgo, **Woo Choo How**; *a*, *b*, *c*, *d*, *e*, and *f*, **Lang Wei**, Official Rank; *p*, **Lang Tseang**, a General, and *v*, **Shang Tseang**, a Higher General;¹ while **Tsae Ching**, the Favorite Vassal, was the title for Bode's 2629. This abundant nomenclature, in so faint a figure, shows great interest on the part of the Chinese in this beautiful little group.

Argelander numbers thirty-six stars here, Heis extending this to seventy; and Chase, of the Yale Observatory, has taken measures of thirty-two of these. The constellation culminates about the middle of May.

Although it is not easy for the casual observer to locate any of the individual stars except the *lucida*, three have been lettered — *a*, *β*, *γ* — that Bailly claimed for Flamsteed's 7, 15, and 23. Of these Fl. 15, an orange star, is generally supposed to be the Arabian **Al Dafirah**, from Ulug Beg's name for the whole that he located among the *informes* of Leo. Hyde cited some ancient codices as applying to Fl. 21, toward the south, the title **Kissin**, a species of Ivy, Convolvulus, or perhaps the climbing Dog-rose. This appeared with Ulug Beg, evidently from Ptolemy's *κίσσινος*, but Ideler said that it was intended to mark *c*, *g*, and *h*, and Bailly, that it was for Fl. 21 or 23.

There evidently is much uncertainty as to the lettering and numbering of Coma's stars; and it seems remarkable that such minute objects should bear individual names.

¹Some of these letters may be from Flamsteed, as he applied *a*, *b*, *c*, *d*, *e*, *f*, *g*, and *h* to a small portion — the centre — of the constellation; but Bailly, his editor, has rejected them as being only a temporary arrangement.

Near Fl. 6 is the **Pin-wheel Nebula**, N. G. C. 4254, 99 M., one of the pyrotechnics of the sky; while Fl. 31 closely marks the pole of the Milky Way, more exactly in right ascension $12^{\circ} 40'$ and north polar distance 28° ; the southern pole lying in Cetus.

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. . . other few,
Below the Archer under his forefeet,
Led round in circle roll without a name.

Brown's *Aratos*.

Corona Australis, the Southern Crown,

often qualified by other synonymous adjectives, *austrina*, *meridiana*, *meridionalis*, or *notia*, is an inconspicuous constellation, although accepted in Ptolemy's time as one of the ancient forty-eight. On modern maps its location is close to the waist of Sagittarius, on the edge of the Milky Way.

The Germans know it as the **Südliche Krone**; the French, as the **Couronne Australe**; and the Italians, as the **Corona Australe**.

Aratos did not mention it by name unless in his use of the plural *Στεφάνοι* for both of the Crowns; yet doubtless had it in mind when he wrote of the *Δινωτοί Κύκλω* in our motto. His scholiast and Geminus had *Ὀυρανίσκος*, the Canopy; *Δευτέρος*, the Second; and *Δευτέρα Κύκλα*, the Second Circle. Hipparchos is said to have known it as *Κηρυκεῖον*, the Caduceus, or Herald's Wand of Peace, but this is not found in his *Commentary*. Ptolemy called it *Στεφάνος νοτίος*, the Southern Wreath.

Germanicus rendered the supposed reference in the *Phainomena* as *Corona sine honore*—i.e. without any such noteworthy tradition as is connected with the Northern Crown; commenting upon which, Grotius said that this author, as well as Cicero and Avienus, understood Aratos to refer to the southern figure; and added that this was the **Centaur's Crown**, those personages frequently being represented as wearing such. This idea doubtless originated from the outspreading sun-rays, in crown-like form, around the heads of the Gandharvas, the Aryan celestial horses that probably were the forerunners of the Centaurs. It was thus appropriately associated with the centaur Sagittarius and took the title **Corona Sagittarii**.