

Proctor thought that it marked Draco's darted tongue in the earliest representations of the figure,—unless  $\epsilon$  Herculis were such star; while Denning considers it the radiant point of the meteor stream seen about the 29th of May,—the **Draconids**.

$\sigma$ , 6.5, in the second coil northeast from  $\delta$ , is **Alsañ**, corrupted from **Athāñ**, erroneously transcribed from the Arabic plural **Athāfiyy**, by which the nomads designated the tripods of their open-air kitchens; one of these being imagined in  $\sigma$ ,  $\tau$ , and  $\nu$ . Uthfiyyah is the singular form. It probably is one of the nearest stars to our system,—about thirteen light years away according to Brunowski's unconfirmed determination.

$\phi$ , a 4th-magnitude double, was the Chinese **Shaou Pih**, the Minor Minister; and  $\chi$ , of slightly greater brilliancy, was **Kwei She**.

$\psi^1$  and  $\psi^2$ , 4.3 and 5.2, pearly white and yellow.

**Daiban**, from **Al Dhibain** (the Arabs' title for  $\zeta$  and  $\eta$ ), has been given by some to this pair, and Lach thought that with  $\chi$  it also was **Al 'Auhakān**, which we similarly find for  $\zeta$  and  $\eta$ .

In China it was **Niu She**, the Palace Governess, or a Literary Woman.

The components of  $\psi^1$  are about 30'' apart, with a position angle of  $15^\circ$ .

$\omega$ , 4.9, and  $f$ , 5.1.

These dim stars, between  $\zeta$  and the group  $\phi$ ,  $\chi$ , and  $\psi$ , were **Al Athfār al Dhib**, the Hyaena's claws, stretched out to clutch the Camel's Foal. They thus appear with Ulug Beg and on the Dresden globe; but elsewhere occasionally were known as **Al 'Auhakān**, a designation shared with  $\zeta$  and  $\eta$ , and with  $\phi$  and  $\chi$ . They also sometimes were **Al Dhib**, the Wolf.

There seems to be confusion, and some duplication, in the nomenclature of Draco's stars, but their many titles show the great attention paid to the constellation in early days.

★

. . . the flaming shoulders of the Foal of Heav'n.

Omar Khayyām's *Rubāiyāt*.

### **Equuleus, the Foal,**

that modern Latin critics would turn into **Eculeus**, lies half-way between the head of Pegasus and the Dolphin, marked by the trapezium of 4th- to 5th-magnitude stars,— $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ ,—although Argelander catalogues nine others, and Heis twelve down to 6.7 magnitude. Thus "the flaming

shoulders" of our motto are lacking here, and the reference may be to Pegasus, to which the characterization certainly is more appropriate.

The Germans call it **Füllen**, the Filly, and **Kleine Pferd**, which with us is the **Little Horse**, the French **Petit Cheval**, and the Italian **Cavallino**.

Hood wrote of it about 1590:

This constellation was named of almost no writer, saving *Ptolomee* and *Alfonsus* who follow with Ptolomee, and therefore no certain tale or historie is delivered thereof, by what means it came into heaven;

but we know that Geminus mentioned it as having been formed by Hipparchos, its stars till then lying in the early Dolphin. Still Hipparchos did not allude to it in his *Commentary*, nor did Hyginus, Manilius, or Vitruvius, a century after him.

Ptolemy catalogued it as ἵππου Προτομή, this last word equivalent to our Bust for the upper part of an animal figure; but with later astronomers it was **Equus primus** and **prior**, as preceding Pegasus in rising; while from its inferior size come our own title and **Equulus**, **Equiculus**, and **Equus Minor**. Gore's translation of *l'Astronomie Populaire*, following Proctor, has **Equus**, the larger Horse being **Pegasus**.

Ptolemy's idea of the incompleteness of the figure was repeated in the **Equi Sectio**, **Equi Praesection**, **Sectio equina**, **Sectio Equi minoris**, **Semi-perfectus**, and **Praesegmen** of various authors and Latin versions of the *Syntaxis* and of the *Alfonsine Tables*; the *Almagest* of 1551 gave **Praecisio Equi**.

Chrysococca's *Tables* had Κεφαλή ἵππου, the **Equi Caput** of some Latin writers, and the **Horse's Head** of our day.

The Arabians followed Ptolemy in calling it **Al Kitāh al Faras**, Part of a Horse, Chilmead's **Kataat Alfaras**; **Al Faras al Thānī**, the Second Horse, alluding either to its inferior size, or to the time of its adoption as a constellation; and **Al Faras al Awwal**, the First Horse, in reference to its rising before Pegasus. From the first of these comes the modern **Kitalpha**, sometimes applied to the constellation, and generally to the brightest star. Riccioli's **Elmac Aloheras** certainly is a barbarism,—not unusual, however, with him; but La Lande's rarely used **Hinnulus**, a Young Mule, has more to commend it.

With the Hindus it was another of their **Açvini**, the Horsemen, although their figuring resembled ours.

Some of the mythologists said that the constellation represented **Celeris**, the brother of Pegasus, given by Mercury to Castor; or **Cyllarus**, given to Pollux by Juno; or the creature struck by Neptune's trident from the earth when contesting with Minerva for superiority; but it also was connected

with the story of Philyra and Saturn. Caesius, in modern times, associated it with the **King's Horse** that Haman hoped for, as is told in the *Book of Esther*; and Julius Schiller, with the **Rosa mystica**.

The constellation comes to the meridian on the 24th of September.

$\alpha$ , 3.8,

is **Kitalpha**, from the Arabian name for the whole figure, strangely turned by Burritt into **Kitel Phard**. Stieler has **Kitalphar**.

With  $\beta$  it was the Chinese **Sze Wei**.

$\delta$ , Triple and binary, 5, 5, and 10, topaz yellow and pale sapphire.

The two largest stars form a system noted as the quickest in orbital revolution of all known binaries except  $\kappa$  Pegasi, and perhaps the 7th-magnitude L1. 9091 in Orion, on the border of Taurus. Its period is about  $11\frac{1}{2}$  years, and the components are so close that they can be separated only by the largest telescopes; their maximum distance apart every seven years is but  $0''.44$ , this occurring in 1897, their position angle being  $208^\circ$ .

$\epsilon$  is another triple, much resembling  $\delta$  in character; the component stars, 5.7, 6.2, and 7.1 in magnitude, are  $1''.3$ , and  $10''.4$  apart, the colors of the first two yellowish, the last ashy white.

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### **Equuleus Pictoris, the Painter's Easel,**

was formed, and thus named, by La Caille, but also has been called **Pluteum Pictoris**; astronomers know it as **Pictor**. It is the **Chevalet du Peintre**, or the **Palette**, of the French; the **Pittore** of the Italians; and the **Malerstaffelei** of the Germans.

The constellation lies just south of Columba, between Canopus and the south pole of the ecliptic in Dorado, La Caille assigning to it 14 stars, of from  $3\frac{1}{2}$  to  $5\frac{1}{2}$  magnitudes; but Gould catalogued 67 down to the 7th.

Near its  $\epsilon$ , and close to Columba, Kapteyn recently has discovered an 8.2-magnitude orange-yellow star having a proper motion of  $8''.7$  annually, thus much exceeding that of Goombridge's 1830 Ursae Majoris, hitherto the **Flying Star**.