

but this second **Hare** I cannot trace, although Bayer had Cerva as a title for Cassiopeia "north of the Fishes."

There is a sprinkling of indistinct stars between the Fishes and the Whale that Vitruvius called Ἐρμεδόνη, explained by Hesychios as the Stream of Faint Stars, but by some French commentator as *les délices de Mercure*, whatever that may be. Riccioli, calling it **Hermidone**, said that it was *effusio Aquarii*, the classical designation for the Stream from the Um; but Baldus, with Scaliger, said that the word was Ἀρπεδόνη, the Cord, although this seems equally inapplicable here. These stars may be the proposed new **Testudo** noted under  $\beta$  Ceti.

Argelander gives 75 components visible to the naked eye, and Heis 128; but the *lucida* is only of the 4th magnitude.

$\alpha$ , Double and probably binary, 4 and 5.5, pale green and blue.

**Al Bescha**, or **Al Risha**, derived from the Arabians' **Al Rishā**, the Cord, is  $20^\circ$  south from the head of Aries,  $2^\circ.7$  north of the celestial equator, and marks the knot in the united cords of the Fishes; the same title being applied to  $\beta$  Andromedae. This word originally may have come from the Babylonian Riksu, Cord.

Hipparchos and Ptolemy designated it as Σύνδεσμος τῶν Ἰχθύων, or τῶν Λίνων, the Knot of the Fishes, or of the Threads, varied by Aratos and Geminus in Δεσμός; these words being transcribed by Germanicus and the scholiasts as **Sundesmos** and **Desmos**. They were rendered by Cicero and others as **Nodus**, **Nodus coelestis**, and **Nodus Piscium**; by Pliny as **Commissura Piscium**; and in the 1515 *Almagest* as **Nodus duorum florum**.

The Arabians translated these by **Ukd al H'aiṭain**, which, as **Okda** and **Kaitain**, are not unusual titles now.

The uniting cords, branching from  $\alpha$  through  $\sigma$ ,  $\pi$ ,  $\eta$ , and  $\rho$  to the tail of the northernmost Fish, and through  $\xi$ ,  $\nu$ ,  $\mu$ ,  $f$ ,  $e$ ,  $\zeta$ ,  $\epsilon$ , and  $\delta$  to  $\omega$  that marks the tail of the one to the south, were Ptolemy's λίνων, "thread," the λίνων of other authors. Cicero called them **Vincla**, the Bonds; and the scholiast on Germanicus, **Alligamentum linteum** or **luteum**, divided by Hevelius into **Linum boreum** and **austrinum**. Some of these terms also were applied to the star  $\delta$  as marking one of the cords.

The Arabians knew these cords as **Al H'aiṭ al Kattāniyy**, the Flaxen Thread; and Al Aṣma'i, about the year 800, mentioned them in his celebrated romance *Antarah* as a distinct constellation; but Pliny had done the same long before him.

Al Rischa, although lettered first, is somewhat fainter than  $\gamma$  and  $\eta$ .

It culminates on the 7th of December.

The component stars are 3" apart, at a position angle of  $324^\circ$ .

$\beta$ , a  $4\frac{1}{2}$ -magnitude, is given by Al Achsasi as **Fum al Samakah**, the Fish's Mouth, descriptive of its position near that feature in the westernmost of the two. With  $\gamma$ ,  $\theta$ ,  $\iota$ , and  $\omega$  it was the Chinese **Peih Leih**, Lightning.

$\delta$ , 4.1,

has in Bayer's *Uranometria* many of the titles already noted under  $\alpha$ , but they would seem to be words merely indicative of the star's position on the Cord, although some have used them as proper names.  $\delta$ ,  $\alpha$ ,  $\epsilon$ ,  $\zeta$ ,  $\mu$ ,  $\nu$ , and  $\xi$  made up the Chinese figure **Wae Ping**, a Rolled Screen.

$\zeta$ , a double 5th- and 6.3-magnitude, apparently unnamed, was prominent in Hindu astronomy as marking the initial point of the celestial sphere about the year 572, when it coincided within 10' of longitude with the vernal equinox. It formed part of the Khorasmian lunar station **Zidadh**, the Sogdian<sup>1</sup> **Riwand**, and of the 26th *nakshatra*, **Revati**, Rich, being the junction star between Revati and Aqvinī. With  $\epsilon$  it was the Persian lunar station **Kaht** and the Coptic **Kuton**, Cord.

$\eta$ , Double, 4 and 11.

Epping asserts that this marked the 1st ecliptic constellation of the Babylonians, **Kullat Nūnu**, the Cord of the Fish, which, if correct, would show the origin of the Greek title, and the probable great antiquity of the present figure. Another signification may be the Dwelling of the Fish.

In China, with  $\alpha$ ,  $\rho$ , and  $\chi$ , it was **Yew Kang**, the Right-hand Watch.

The components of  $\eta$  are 1" apart, at a position angle of  $12^\circ.9$ .

$\kappa$  and  $\lambda$ , 4th-magnitude stars just above the ventral fin of the western Fish, were the Chinese **Yun Yu**, the Cloud and Rain.

$\sigma$ , 4.6, appeared in the 1515 *Almagest* as **Torcularis septentrionalis**, a translation of  $\lambda\eta\nu\acute{o}\varsigma$ , erroneously written for  $\lambda\acute{\iota}\nu\omicron\varsigma$ , this star being on the Thread northeast from  $\alpha$ . But the Latin word should read **Torcular**.

Fl. 65, a 6th-magnitude double, has been regarded by Maxwell Hall as the Central Sun of the Universe.

<sup>1</sup> The Arabs considered Sogdiana one of the four fairest lands on earth; its capital, Samarkhand, was the home of the great Tamerlane and of Ulug Beg, his grandson.