

δ , 3.6, pale yellow.

Megrez is from **Al Maghrez**, the Root of the Tail.

In China it was **Kwan**, and **Tien Kuen**, Heavenly Authority.

With the Hindus it may have been **Atri**, one of their Seven Rishis, and the *Vishnu-Dharma* said that it ruled the other stars of the Bear.

It is 10° distant from α ; $4\frac{1}{2}^\circ$ from γ ; $5\frac{1}{2}^\circ$ from ϵ ; and 32° from the pole, directly opposite β Cassiopeiae, and almost on the equinoctial colure. α , β , γ , and δ form the bowl of the Dipper, the body of the Bear, and the frames of the Bier, Plough, and Wain, but occupy a space of less than $\frac{1}{4}$ of the whole constellation. Within this square Heis shows eight stars.

Megrez is thought to be slightly variable, and to have decreased in lustre during the present century, on the very doubtful ground that it is much fainter than the succeeding ϵ . As to this Miss Clerke writes:

The immemorially observed constituents of the Plough preserve no fixed order of relative brilliancy, now one, now another of the septett having at sundry epochs assumed the primacy.

But this is uncertain, although we know that Ptolemy rated it at the 3d magnitude and Tycho at the 2d.

ϵ , 2.1.

Alioth, sometimes **Aliioth**, seems to have originated in the first edition of the *Alfonsine Tables*, and appeared with Chaucer in the *House of Fame* as **Aliot**; with Bayer, as **Aliath**, from Scaliger, and as **Risaliioth**; with Riccioli, as **Alabieth**, **Alaiioth**, **Alhiath**, and **Alhaiath**, all somewhat improbably derived, Scaliger said, from **Alyat**,¹ the Fat Tail of the Eastern sheep. But the later Alfonsine editions adopted **Aliare** and **Aliore** — Riccioli's **Alcore** — from the *Latin Almagest* of 1515, on Al Tizini's statement that the word was **Al Hawar**, the White of the Eye, or the White Poplar Tree, *i. e.* Intensely Bright; Hyde transcribing the original as **Al Haur**. Ulug Beg had **Al Haun**, but Ideler, rejecting this as not being an Arabic word, substituted **Al Jaun**, the Black Courser, as if belonging to the governor, Al Kā'id, the star η , and its comparative faintness gives some probability to this conjecture. Assemani, however, said that on the Cufic globe it is "**Alhut**," the Fish,—one of the many instances of blundering that Ideler attributed to him.

Bayer also assigned to it the **Micar**, **Mirach**, and **Mizar** that we give to

¹ The syllable Al, in this word Alyat, is not the Arabic definite article.

η , and designated it as $\Lambda\gamma\omega\nu$, the Flank, and $\Upsilon\pi\acute{o}\zeta\omega\mu\alpha$, the Diaphragm, as marking those parts of the Bear's figure.

Al Birūni said that it was **Aṅgiras** among the Hindu Seven Sages.

In China it was **Yuh Kang**, the Gemmeous Transverse, a portion of an early astronomical instrument; while other stars between it and δ were **Seang**, the Minister of State.

ϵ has a Sirian spectrum, and is in approach toward us at the rate of 19 miles a second. It is $5\frac{1}{2}^\circ$ from δ , and $4\frac{1}{2}^\circ$ from ζ .

In 1838 Sir John Herschel thought it the *lucida* of the seven stars, but in 1847 that η had taken its place. Franks, in 1878, considered ϵ the *lucida*, and that the sequence was ϵ , η , ζ , α , β , γ , and δ .

ζ , Double, possibly binary, 2.1 and 4.2, brilliant white and pale emerald.

Mirak was an early name for this, a repetition of that for β ; but Scaliger incorrectly changed it to the present **Mizar**, from the Arabic **Mi'zar**, a Girdle or Waist-cloth, which, although inappropriate, has maintained its place in modern lists; **Mizat** and **Mirza** being other forms. There is evident confusion in the early use of this word as a stellar title, for it has also been applied to the stars β and ϵ of this constellation. The "hill Mizar" of the 42d *Psalm* sometimes is wrongly associated with this, the original Hebrew word *miš'ar* being better rendered in the *Psalter*, from Coverdale's version, as "the little hill," i. e. of Hermon, of which it was a minor peak.

ζ also was the Arabic **Anāk al Banāt**, the Necks of the Maidens, referring to the Mourners at the Bier; or perhaps this should be rendered "the Goat of the Mourners," for in some editions of Ulug Beg's *Tables* it was written **Al Inak**,—correctly **Al 'Inz**. Assemani said that it was "**Alhiac**," the Ostrich, probably another of his errors, as all these stellar birds were much farther south, in or near our River Eridanus.

With Alcor it has various combined titles noted at that star; and Wetzstein repeats an Arabic story in which Mizar is the *wālidān* of the Banāt, with Alcor as her new-born infant.

In India it may have been **Vashishtha**, one of the Seven Sages.

ζ was the first star to be noticed as telescopically double,—by Riccioli at Bologna in 1650, and fifty years later much observed and very fully described by Gottfried Kirch and his scientific wife, Maria Margaretha Winckelmann: an association like that of the great observer Herschel and his sister, of the last century, and of Sir William and Lady Huggins in their spectroscopic work of to-day. As early as 1857 it was successfully daguerreotyped, with others surrounding, by the younger Bond of the Har-