

Smyth said that it was known as **Lucida Cassiopea**,—a matter-of-fact statement, as the brightest star in any sky figure is the *lucida*.

Birt noticed its variability in 1831, which is now determined as in a period of about 79 days, although irregular.

It culminates on the 18th of November.

Burnham has discovered two additional faint companions, the nearest 17".5 away: the companion first known, a small blue star, having been found by Sir William Herschel, in 1781, 63" away.

α , β , η , and κ were the Chinese **Yūh Lang**, or **Wang Leang**.

β . 2.4, white.

Caph, **Chaph**, or **Kaff**, on the upper right-hand corner of the chair, are from the Arabic title of the constellation; but Al Tizini designated the star as **Al Sanām al Nakah**, the Camel's Hump, referring to the contemporaneous Persian figure.

With α Andromedæ and γ Pegasi, as the **Three Guides**, it marks the equinoctial colure, itself exceedingly close to that great circle; and, being located on the same side of the pole as is Polaris, it always affords an approximate indication of the latter's position with respect to that point. This same location, 32° from the pole, and very near to the prime meridian, has rendered it useful for marking sidereal time. When above Polaris and nearest the zenith the astronomical day begins at 0 hours, 0 minutes, and 0 seconds; when due west the sidereal time is 6 hours; when south and nearest the horizon, 12 hours, and when east, 18 hours; this celestial clock-hand thus moving on the heavenly dial contrary to the motion of the hands of our terrestrial clocks, and at but one half the speed.

Betu's parallax, 0".16, indicates a distance of 20 light years.

Just north of it is an especially bright patch in the Milky Way.

When first **Al Aaraf** knew her course to be

Headlong thitherward o'er the starry sea.

Edgar Allan Poe's *Al Aaraaf*.

About 5° to the west-northwest of Caph, 1½° distant from κ , and forming a parallelogram with Caph, γ and α , appeared, in 1572, a famous *nova* visible in full daylight and brighter than Venus at perigee.

Poe's name for it is from the Arabians' Al Orf,—in the plural Al Arāf,—their temporary abode of spirits midway between Heaven and Hell, and so applicable to this temporary star. This object was known for two centuries

after its appearance as the **Stranger**, or the **Pilgrim, Star**, and the **Star in the Chayre**, but by us as **Tycho's Star**, although it was first noticed by Schuler at Wittenberg in Prussia, on the 6th of August; again at Augsburg by Hainzel, and at Winterthür, Switzerland, by Lindauer, on the 7th of November; and on the 9th by Cornelius Gemma, who called it the **New Venus**. Maurolycus began its systematic study at Messina on the 8th, while Tycho did not see it till the 11th, at the time of its greatest brilliancy; but his published account of it in 1602, in his *Astronomiæ Instauratæ Prolegymnasmata*, has caused his name to be identified with it. Its lustre began to wane in the following December, and it was inserted in the *Rudolphine Tables* as "Nova anni 1572" of the 6th magnitude, to which it had at that time decreased. It disappeared entirely in March, 1574, so far as could then be known.

This *nova* is said to have incited Tycho to the compilation of his star-catalogue, as that of seventeen centuries earlier may have been the occasion of the catalogue of Hipparchos. At all events, it created a great commotion in its time, and induced Beza's celebrated prediction of the second coming of Christ,¹ as it was considered a reappearance of the Star of Bethlehem. The statement that this star appeared in 945 and 1264 rests upon the very doubtful authority of the Bohemian astrologer Cyprian Leowitz, and is not credited by our modern astronomers; although Williams asserts that a large comet was seen in the latter year near Cassiopeia. The reddish $10\frac{1}{2}$ -magnitude, known as B Cassiopeiae, singularly variable in its light, is now to be seen 0'.8 from the spot assigned by Argelander to the star of 1572, and is thought possibly to be identical with it.

The Chinese recorded Tycho's *nova* as **Ko Sing**, the Guest Star.

γ , Binary, 2 and 11, brilliant white.

in Cassiopeia's girdle, was the Chinese **Tsib**, a Whip.

This was the first star discovered to contain bright lines in its spectrum,—by Secchi in 1886,—and so is of much interest to astronomers. The spectrum is peculiarly variable, as also is its light.

The components are $2''.1$ apart, at a position angle of $255^\circ.2$, and there has been no change in angle or distance since measured by Burnham in 1888. A telescope of high power shows several minute companions.

¹ In the same way the comet of 1843 confirmed the Millerites in their belief in the immediate destruction of the world.