

years, the components  $2''$  apart, at a position angle, in the year 1897, of  $276^{\circ}.58$ . A third invisible companion is suspected.



### *Telescopium, or Tubus Astronomicus,*

was formed by La Caille between Ara and Sagittarius on the edge of the Milky Way, but in such irregular form that it encroached upon four of the old constellations;  $\eta$  Sagittarii having been taken as  $\beta$  to mark the Telescope's stand;  $d$  Ophiuchi for its  $\theta$ ;  $\sigma$  was in Corona Australis; and  $\gamma$  was the  $v$  of Scorpio. Bode had it in his *Gestirne* of 1805 as the *Astronomische Fernrohr*, crowding it in between Sagittarius and Scorpio; but Baily and Gould restricted it to the south of Scorpio, Sagittarius, and Corona Australis.

Gould assigned to it 87 naked-eye stars, the brightest a  $3\frac{1}{2}$ -magnitude.

Small as these are, two bore individual titles in Chinese astronomy;  $\alpha$  being known as **We**, Danger; and  $\gamma$  as the mythological **Chuen Shwa**.

The constellation culminates on the 13th of August, at the same time as Wega of the Lyre.



### *Telescopium Herschelii,*

formed by the Abbé Hell in 1781, in honor of Sir William Herschel, was first published by Bode in 1800. It lay between the Lynx and Gemini and appears on Burritt's *Atlas*; but since his day has passed away from the maps and catalogues.

The star  $\pi$  of Gemini marks its former location, the western end having been among the  $\psi$  stars of Auriga, not far from the latter's  $\beta$ .



Five splendid Stars in its *unequal* Frame  
*Deltoton* bears, and from the shape a Name;  
 But those that grace the sides dim Light display  
 And yield unto the *Basis* brighter Ray.

Creech's *Manilius*.

### *Triangulum,*

the German **Dreieck**, the French and English **Triangle**, and the Italian **Triangolo**, appeared as **Triangulus** in the *Rudolphine Tables*, always quali-

fied as *major* till the Lesser Triangle was discarded. It lies just south from  $\gamma$  *Andromedae* on the edge of the Milky Way, and although small and faint notwithstanding our poet's description, is one of the old constellations evidently more noticed by the ancients than by us. They drew it as equilateral, but now it is a scalene figure,  $\beta$ ,  $\delta$ ,  $\gamma$  at the base and  $\alpha$  at the vertex.

Hood strangely said that it was placed in the heavens only that the head of Aries might be better known, which recalls the blunder of Aratos as to the faintness of Aries' stars.

It was  $\Delta\epsilon\lambda\tau\omega\pi\acute{o}\nu$  with the earlier Greeks, from their similarly shaped letter  $\Delta$ , to which Ovid in his *Nux* likened it; as did Aratos in his lines that Brown renders, more literally than rhythmically :

Below Andromeda, in three sides measured  
Like-to-a-Delta; equal two of them  
As it has, less the third, yet good to find  
The sign, than many better stored with stars.

Transcribed by Cicero and Hyginus as **Deltoton**, it became **Deltotum** with the Romans, as well as with astronomers to the 17th century. Naturally it also was **Delta**, and so, associated with Egypt and the Nile, became **Aegyptus**, **Nilus**, **Nili Domum**, the Home of the Nile, which originally was **Nili Donum**, the Gift of the Nile, from Herodotus'  $\pi\omicron\tau\alpha\mu\omicron\upsilon\delta\omega\rho\omicron\nu$ , "the river's gift."

$\tau\rho\acute{\iota}\gamma\omega\nu\omicron\nu$ , used by Hipparchos and Ptolemy, became **Trigonum** with Vitruvius, and **Trigonus** with Manilius, translated **Trigon** by Creech. **Tricuspis**, Three-pointed, and **Triquetrum**, the Trinal Aspect of astrology, are found for it; while Bayer had **Triplicitas** and **Orbis terrarum tripertitus** as representing the three parts of the earth, Europe, Asia, and Africa; and **Triangulus Septentrionalis**, to distinguish it from his own Southern Triangle.

Pious people of his day said that it showed the **Trinity**, its shape resembling the Greek initial letter of  $\Delta\acute{\iota}\omicron\varsigma$ ; while others of the same sort likened it to the **Mitre of Saint Peter**.

Its titles **Sicilia**, **Trinacria**, and **Triquetra** are those of the ancients for the similarly shaped island of Sicily,—that Ceres had begged of Jove might be reproduced in the sky,—triangular from its three promontories, Lilybaeum, Pelorus, and Pachynus, and at times identified with the mythical Thrinakia of the *Odyssey*, the pasture-ground of the Oxen of the Sun, that Gower called Mela's Holy Ox-land. In modern days it has been noted as the site of the famous Palermo Observatory.

It was here that was discovered by Piazzì, on the first New Year Day of the present century, the first minor planet, which he named **Ceres Fer-**

**dinandea** in joint honor of the patron goddess of the island and of his king, the Bourbon Ferdinand of Naples; but the adjective has been dropped by astronomers as not conforming to their rule of mythological nomenclature for the planets,—a rule, however, much deviated from in recent times in the naming of these little bodies. Perhaps the astronomers have exhausted their classical dictionaries! It was found<sup>1</sup> as an 8th-magnitude star—Flammarion says as a comet—between Aries and Taurus, coincidently not far from our Triangulum, the ancient **Sicilia**; but it was little imagined at the time that 433 similar bodies would be found in the next ninety-seven years, more than 150 of them since 1892, and all but seven of these last by photography,<sup>2</sup> then an unknown art.

The Arabians translated our title as **Al Muthallath**, variously seen in Western usage as **Almutallath**, **Almutaleh**, **Almutlato**, **Mutlat**, **Mutlaton**, **Mutlathum**, **Mutlathun**, and **Mutlatun**, with probably still other similarly degenerated forms of the original.

The Jews are said to have known it as **Shālīsh**, from the name of an instrument of music of triangular shape, or with three cords, mentioned in the 1st *Book of Samuel*, xviii, 6. This same figure, for the three bright stars of Aries, has already been noticed at  $\gamma$  of that constellation.

Heis enumerates here 30 naked-eye components, but Argelander only 15.

The Chinese asterism **Tsien Ta Tseang**, Heaven's Great General, included this with  $\lambda$  of Andromeda and the stars of the Smaller Triangle.

$\alpha$ , 3.6, yellow.

**Caput Trianguli** was translated **Rās al Muthallath** by the Arabian astronomers.

It is a half-magnitude inferior to  $\beta$ , although the latter bears no name.

Together these two were the Arabs' **Al Mizān**, the Scale-beam.

$\alpha$  comes to the meridian on the 6th of December.

<sup>1</sup> This, like many other important discoveries, was by a happy accident,—Piazzini, very differently, being in search of an extra star, the eighty-seventh of Mayer's list, wrongly laid down in Wollaston's catalogue.

Recent measurements by Barnard show that Ceres is only a little less than 500 miles in diameter, and thus the first in size of the minor planets as in order of discovery.

<sup>2</sup> The first of such discoveries by the camera was by Wolf on the 20th of December, 1891. of Brucia, No. 323; the first applications of the new art to the heavens having been made with the daguerreotype process by Doctor John W. Draper, of New York City, on the moon in 1840; again, by the professional Whipple of Boston, under Bond's direction, at the Harvard Observatory, on the star Wega in 1850; and at the same place on Mizar and Alcor in 1857. The first photograph of a star's spectrum was in 1872; of a nebula, in 1880; of a comet (near the sun during the latter's total eclipse), in 1882; and of a meteor, in 1891.