

Aratos is supposed to have alluded to these "ungrouped, unnamed" stars under the hind paws of Ursa Major; and Ptolemy had some of them among the ἀμόρφωτοι of his Λέων. Ideler surmised that they were the Arabs' **Al Thibā' wa-Aulāduhā**, the Gazelle with her Young, shown in this location on the Borgian globe; but Lach, that they were **Al Haḍ**, the Pond, into which the Gazelle sprang, as noted under Coma Berenices.

The Chinese made two asterisms of it,—**Nuy Ping**, an Inner Screen, and **Seau Wei**; but also included our Lesser Lion with the Greater in their still greater **Dragon** mounting to the highest heavens, and in yet another figure, the **State Chariot**.

The Denderah planisphere located here the zodiacal Crab, but whether by design, or in error, is unknown; although some see in the Lesser Lion's stars, with others from the Bear's feet, a well-marked Scarab that was Egypt's idea of Cancer. This was in a part of the sky thought to have been sacred to the great god Ptah.

Fl. 46, 4.

To the *lucida* Hevelius applied the adjective **Praecipua**, Chief, which Piazzi inserted as a proper name in the *Palermo Catalogue*. Burritt mentioned it, under the letter *l*, as the **Little Lion**, from its being the principal star in the figure.

It culminates on the 14th of April.

In Smyth's *Bedford Catalogue* we read that Praecipua has three distant companions,—7½, pale gray; 13, reddish; and 12, of violet tint.



Behind him Sirius ever speeds as in pursuit, and rises after,
And eyes him as he sets.

Poste's *Aratos*.

Lepus, the Hare,

the German **Hase**, the Portuguese **Lebre**, the Italian **Lepre**, and the French **Lièvre**, is located just below Orion and westward from his Hound.

It was Λαγώς among the Greeks — Λαγώς in the Epic dialect,— Aratos characterizing its few and faint stars by the adjective γλαυκός. With the Greeks of Sicily, the country noted in early days for the great devastations by hares, the constellation was Λέπορις, whence came the fanciful story

that our Hare was placed in the heavens to be close to its hunter, Orion. Riccioli enlarged upon this in his *Almagestum Novum* :

Quia Orion in gratiam Dianae, quae leporino sanguine gaudebat, plurimum venatu leporis gauderet.

Among the Romans it was simply **Lepus**, often qualified by the descriptive *auritus*, "eared"; *dasyſpus*, "rough-footed"; *levipes*, "light-footed"; and *velox*, "swift."

The Arabians adopted the classical title in their **Al Arnab**, which degenerated into **Alarnebet**, **Elarneb**, and **Harneb**; and the Hebrews are said to have known it as **Arnebeth**; but the early Arabs designated the principal stars — α , β , γ , and δ — as **Al Kursiyy al Jabbār** and **Al 'Arsh al Jauzah**, the Chair of the Giant and the Throne of the Jauzah. Kazwini, repeating this, added, in Ideler's rendering, *Gott weiss wie sonst noch*, which Smyth assumed to be Ideler's comment thereon; but it was merely his translation of Kazwini's Arabic formula, *God is the Omniscient*, used when a writer did not wish to come to a decision. Smyth further wrote of it :

'Abdr rahmān Sūfī designates the throne — one of the many which the Arabs had in their heavens, although a squatting rather than a sitting people — **al-muakhkherah**, the succeeding, as following that formed by λ , β , ψ Eridani and τ Orionis.

Al Sufi also cited the occasional **Al Nihāl**, the Thirst-slaking Camels, for the four bright stars, in reference to the near-by celestial river, the Milky Way.

It is in the space occupied by Lepus, or perhaps by Monoceros, that Hommel locates the Euphratean **Udkagaba**, the Smiting Sun Face, although Brown assigns this to Sagittarius, "the original Sagittary being the sun."

Hewitt says that in earliest Egyptian astronomy Lepus was the **Boat of Osiris**, the great god of that country, identified with Orion. The Chinese knew it as **Tsih**, a Shed.

Caesius made the constellation represent one of the hares prohibited to the Jews; but Julius Schiller substituted for it **Gideon's Fleece**. The Denderah planisphere has in its place a **Serpent** apparently attacked by some bird of prey; and Persian zodiacs imitated this.

Gould catalogues in Lepus 103 stars down to the 7th magnitude.

Aelian, of our 2d century, in his *Περὶ ζῴων ἰδιότητος*, referred to the early belief that the hare detested the voice of the raven, — a belief that has generally been put among the zoölogical fables of antiquity; but Thompson suggests for it an astronomical explanation, as "the constellation Lepus sets soon after the rising of Corvus"; and something similar may be said of Lepus in connection with Aquila, for the

eagle in combat with the hare is frequent on gems, and on coins of Agrigentum, Messana, Elis, etc. . . . the wide occurrence of this subject . . . indicates a lost mythological significance, in which one is tempted to recognize a Solar or Stellar symbol.

Brown writes of the often discussed comparative location of *Lepus* and *Orion* :

The problem which perplexed the ancients, why the Mighty-hunter and his Dog should pursue the most timid of creatures, is solved when we recognize that *Orion* was originally a solar type, and that the Hare is almost universally a lunar type ;

and mentions the very singular connection between this creature and the moon shown on Euphratean cylinders, Syrian agate seals, Chinese coins, the Moon-cakes of Central Asia, and in the legends of widely separated nations and savage tribes. Astronomical folk-lore has many allusions to this interesting association of animal with satellite, and indirectly with our constellation. The common idea that it is because all are nocturnal does not seem satisfactory ; and there are others still less so, some being mentioned by Beaumont and Fletcher in the *Faithful Shepherd*.

A brief digression to some of these allusions may be allowed here. The Hindus called the moon *Çaçin*, or *Şaşanka*, Marked with the Hare, from the story told of Sakya muni (Buddha). This holy man, in an early stage of his existence, was a hare, and, when in company with an ape and a fox, was applied to by the god Indra, disguised as a beggar, who, wishing to test their hospitality, asked for food. All went in search of it, the hare alone returning unsuccessful ; but, that he might not fall short in duty to his guest, had a fire built and cast himself into it for the latter's supper. In return, Indra rewarded him by a place in the moon where we now see him. Other Sanskrit and Cingalese tales mention the palace of the king of the hares on the face of the moon ; the Aztecs saw there the rabbit thrown by one of their gods ; and the Japanese, the Jeweled Hare pounding *omochi*, their rice dough, in a mortar. Even the Khoikhoi, the Hottentots of South Africa, and the Bantus associated the hare and moon in their worship, and connected them in story, asserting that the hare, ill treated by the moon, scratched her face and we still see the scratches. Eskimos think the moon a girl fleeing from her brother, the sun, because he had disfigured her face by ashes thrown at her ; but in Greenland the sex of these luminaries is interchanged, and the moon pursues his sister, the sun, who daubs her sooty hands over his face. The Khasias of the Himalayas say that every month the moon falls in love with his mother-in-law, who very properly repulses his affection by throwing ashes at him.

Other ideas to account for the lunar marks are current among many na-

tions. One from our North American Indians appears in Longfellow's *Hiawatha* :

Once a warrior very angry,
Seized his grandmother, and threw her
Up into the sky at midnight ;
Right against the moon he threw her ;
'Tis her body that you see there.

The Incas knew them as a beautiful maiden who fell in love with the moon and joined herself forever to him; the New Zealanders, as a woman pulling *gnatuh* ; the Hervey Islanders, as the lovely Ina, an earthly maiden carried away to be our satellite's wife, and still visible with her pile of *taro* leaves and tongs of a split cocoanut branch ; and the Samoans, as a woman with her child and the mallet with which she is pounding out sheets of the native paper cloth. So that all these people long ago anticipated pretty Selene,¹ of whom Serviss tells us.

In southern Sweden a brewing-kettle is imagined on the moon's face ; in northern Germany and Iceland, Hjuki and Bil with their mead burden, the originals of our Jack and Jill with their pail of water, the contents scattered or retained according to the lunar phases. In Frisia the marks were a man who had stolen cabbages, and whom, when discovered, his suffering neighbors wished in the moon, and so it turned out ; or a sheep-stealer, with his dog, who enticed the animals to him by cabbages, and, when detected, was transported to the moon, where he is now seen, cabbages and all. But others said that he was caught with a bundle of osier willows that did not belong to him, and there he is on the moon's face with his plunder.

Danish folk-lore makes the moon a cheese formed from the milk that has run together out of the Milky Way ; which recalls Rabelais' now familiar remark that some thought the moon made of green cheese.

Those biblically inclined saw here the **Magdalen** in tears ; or **Judas Iscariot** ; and, in the earlier record, the patriarch **Jacob** ; **Isaac** with the wood for the sacrifice ; the **Hebrew sinner** gathering sticks on the Sabbath ; or **Cain** driven from the face of the earth to the face of the moon. This appeared even with Dante, Chaucer, and Shakespeare, for the first had in the *Paradiso* :

But tell me what the dusky spots may be
Upon this body, which below on earth
Make people tell that fabulous tale of Cain ;

¹ This may be seen on the western half of the moon after the ninth day of lunation, the face slightly upturned toward the east. It seems to have been first described some years ago by Doctor James Thompson ; and an opera-glass of low power makes the phenomenon very distinct.

and in the *Inferno* :

Touches the ocean wave Cain and the thorns.

In *A Midsummer Night's Dream* Quince says :

Or else one must come in with a bush of thorns and a lanthorn and say, he comes to disfigure, or to present the person of moonshine ;

and Chaucer described the figure as

Bearing a bush of thorns on his back
Whiche for his theft might clime so ner the heaven ;

although Milton, from a higher plane of thought, wrote that the sinful wandered

Not in the neighbouring moon as some have dreamed.

The Salish Indians of our northwest coast tell of a toad which, pursued by a wolf, jumped to the moon to escape his unwelcome attentions.

At the present day the handsome face of Selene shows itself in profile to the favored few ; while the Old Man in the Moon is seen by all. It would be interesting to know who originated this, or, as in *Hudibras*,

Who first found out the Man i' th' Moon,
That to the ancients was unknown.

Yet Shakespeare knew him well, for we find in *The Tempest* :

The man i' th' moon's too slow.

Ages before all this, however, the Egyptians had similar ideas ; the Hindus called the moon Mriga, an Antelope ; the Aethiopians saw that creature in it ; while the Greeks knew it as the Gorgon's head, and Plutarch thought the phenomenon worthy a special treatise in his *De Facie in Orbe Lunae*. But perhaps too much attention has been paid to a probably very dead star : — let us return to those certainly alive, our more legitimate subject.

α , Double, 2.7 and 9.5, pale yellow and gray.

Arneb is from the Arabian name for the whole, but the *Century Dictionary* substitutes the early **Arsh**.

Other near-by stars, presumably in Lepus, were the Chinese **Kuen Tsing**, an Army Well, and **Ping Sing**, the Star Screen.

Ameb culminates on the 24th of January.

The components are $35''.4$ apart, at a position angle of 156° ; and $6'$ away is Sir John Herschel's 3780, a sextuple star.

β , Double, 3.5 and 11, deep yellow and blue.

Nihal is from the collective title of α , β , γ , and δ ,—**Nibal** with Burritt.

Holden says that the companion, nearly $3''$ away, at a position angle of 292° , is suspected to be a planet; and Burnham has discovered other faint companions.

The variable R, 6th to 8.5 magnitudes, is **Hind's Crimson Star**, discovered by Mr. J. R. Hind in 1845,—“like a drop of blood on a black field.” It lies in front of the Hare's head, on the border of Eridanus, but its discoverer announced it as in Orion. Its variability, in a very irregular period of about 438 days, was first recorded by Schmidt in 1855, but accurate observations of maxima and minima are difficult in high latitudes.



the scale of night
Silently with the stars ascended.

Longfellow's *Occultation of Orion*.

Libra, the Balance or Scales,

is the Italian **Libra** and **Blancia**, the French **Balance**, the German **Wage**,—Bayer's **Wag** and Bode's **Waage**,—but the Anglo-Saxons said **Wæge** and **Fund**, and the Anglo-Normans, **Peise**, all meaning the Scales, or a Weight.

The early Greeks did not associate its stars with a Balance, so that many have thought it substituted in comparatively recent times for the **Chelae**, the **Claws of the Scorpion**, that previously had been known as a distinct portion of the double sign; Hyginus characterizing it as *dimidia pars Scorpionis*, and Ptolemy counting eight components in the two divisions of his $\chi\eta\lambda\alpha\acute{\iota}$,— $\beta\acute{o}\rho\epsilon\iota\omicron\varsigma$ and $\nu\acute{o}\tau\iota\omicron\varsigma$,—with nine $\acute{\alpha}\mu\acute{o}\rho\phi\omega\tau\omicron\iota$. Aratos also knew it under that title, writing of it as a dim sign,— $\phi\acute{\alpha}\epsilon\omega\nu$ $\acute{\epsilon}\pi\iota\delta\upsilon\acute{\nu}\epsilon\epsilon\varsigma$,—though a great one,— $\mu\epsilon\gamma\acute{\alpha}\lambda\alpha\varsigma$ $\chi\eta\lambda\acute{\alpha}\varsigma$. Eratosthenes included the stars of the Claws with those of our Scorpio, and called the whole $\Sigma\kappa\omicron\rho\pi\iota\omicron\varsigma$, but alluded to the $\chi\eta\lambda\alpha\acute{\iota}$; as did Hipparchos, although with him the latter also were $\Sigma\upsilon\gamma\acute{o}\nu$, or $\Sigma\upsilon\gamma\acute{o}\varsigma$, these words becoming common for our Libra, and turned by