The interesting researches of Mr. F. C. Penrose on orientation in Greece have shown that many of its temples were pointed to the rising or setting of various prominent stars, as we have seen to be the case in Egypt; this feature in their architecture having doubtless been taken by the receptive, as well as "somewhat superstitious," Greeks from the Egyptians, many of whose structures are thought to have been so oriented six or seven millenniums before the Christian era, although our star Hamal was not among those thus observed on the Nile, for precession had not yet brought it into importance. Of the Grecian temples at least eight, at various places and of dates ranging from 1580 to 360 B. C., were oriented to this star; those of Zeus and his daughter Athene being especially thus favored, as Aries was this god's symbol in the sky.

It was perhaps this prevalence of temple orientation, in addition to their many divinities and especially δ "Ayv $\omega\sigma\tau$ o ς $\Theta\epsilon\delta\varsigma$, the Unknown God, which furnished an appropriate text for Saint Paul's great sermon on the Areopagus to the "men of Athens," when, in order to prove our source of being from Him, he quoted, as in *Acts* xvii, 28, from the celebrated fifth verse of the *Phainomena*:

τοῦ γάρ καί γένος ἐσμίν ¹ (For we are also his offspring).

To this work this quotation generally is ascribed, and naturally so, for the poet and apostle were fellow-countrymen from Cilicia; but the same words are found in the *Hymn to Jupiter* by Cleanthes the Stoic, 265 B. C. As Saint Paul, however, used the plural $\tau i \nu \epsilon \varsigma$ in his reference, "certain even of your own poets," he may have had both of these authors in mind.

Hamal lies but little north of the ecliptic, and is much used in navigation in connection with lunar observations. It culminates on the 11th of December.

Vogel finds it to be in approach to our system at the rate of about nine miles a second. Its spectrum is similar to that of the sun.

β, 2.9, pearly white.

Sharatan and **Sheratan** are from **Al Sharatain**, the dual form of Al Sharat, a Sign, referring to this and γ , the third star in the head, as a sign of the opening year; β having marked the vernal equinox in the days of

1 The Christian fathers Eusebius and Clement of Alexandria made this same quotation; while frequent references to Aratos' poem appear in the writings of Saints Chrysostom and Jerome, and of Occumenius. The heathen Manilius similarly wrote,

. . . nostrumque parentem Stirps sua,

to prove the immortality of the soul.

6

Hipparchos, about the time when these stars were named. Bayer's **Sartai** is from this dual word.

These were the 1st manzil in Al Birūni's list, the earlier 27th, but some added a to the combination, calling it Al Ashrāt in the plural; Hyde saying that λ also was included. Al Nāṭiḥ was another name for this lunar station, as the chief components are near the horns of Aries.

 β and γ constituted the 27th nakshatra Açvini, the Ashwins, or Horsemen, the earlier dual Açvināu and Açvayujāu, the Two Horsemen, corresponding to the Gemini of Rome, but figured as a Horse's Head. a sometimes was added to this lunar station, but β always was the junction star with the adjoining Bharani. About 400 years before our era this superseded Krittikā as leader of the nakshatras. They were the Persian Padevar, the Protecting Pair; the Sogdian Bashish, the Protector; and the equivalent Coptic Pikutorion; while in Babylonia, according to Epping, they marked the second ecliptic constellation Mahrū-sha-rishu-ku, the Front of the Head of Ku.

a, β , and γ were the corresponding *sieu* **Leu**, or **Lew**, the Train of a garment, β being the determinant.

7, Double, 4.5 and 5, bright white and gray,

has been called the First Star in Aries, as at one time nearest to the equinoctial point.

Its present title, **Mesarthim**, or **Mesartim**, has been connected with the Hebrew Meshāretīm, Ministers, but the connection is not apparent; and Ideler considered the word an erroneous deduction by Bayer from the name of the lunar station of which this and β were members. In Smyth's index it is **Mesartun**; and Caesius had **Scartai** from Sharaṭain. a, β , and γ may have been the Jewish **Shalisha**,—more correctly **Shālish**,—some musical instrument of triangular shape, a title also of Triangulum. And they formed one of the several **Athāflyy**, Trivets or Tripods; this Arabic word indicating the rude arrangement of three stones on which the nomad placed his kettle, or pot, in his open-air kitchen; others being in our Draco, Orion, Musca, and Lyra.

Gamma's duplicity was discovered by Doctor Robert Hooke while following the comet of 1664, when he said of it, "a like instance to which I have not else met in all the heaven"; 1 but it was an easy discovery, for the components are 8".8 apart, readily resolved by a low-power.

The position angle has been about oo for fifty years.

¹ Huygens is said to have seen three stars in 31 Orionis in 1656, and Riccioli two in \$\cup Ursae Majoris in 1650.