

# Pleiades and Orion: two ancient Hebrew words

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Two ancient Hebrew words, *kesil* and *kimah*, have been translated as Orion and Pleiades respectively. Unfortunately there are no labelled depictions of the *kesil* and *kimah* constellations found dating from ancient times. There are translations of these words into other languages, but these translations are not consistent in their treatment and do not date much beyond the times of Jesus. Historical reasons for why Orion and Pleiades have been chosen are given in this article.

John Hartnett's article on Pleiades and Orion<sup>1</sup> brilliantly illustrated the dangers of poor exegesis. However it is also necessary to be certain of accuracy in translation from the biblical languages to English. Normally this accuracy can be very confidently accepted. On occasions the exact meaning of an ancient word has a translation given to it that has an interesting history.

The following information may be of interest to those who wish to know how confidently the constellations cited in the relevant ancient Hebrew Scriptures can be considered as actually referring to Pleiades and Orion. I am not attempting to prove or disprove the correctness of the references to Orion and Pleiades, but provide information as to why these particular identifications were made. As no Jewish depictions of Orion and Pleiades with their Hebrew names ascribed to them have been discovered from before the time of Jesus, then their identification relies on other factors. Since 1918 some mosaics of constellations, namely those of the zodiac, have been found in ancient synagogues, but these art works do not appear to include labelled depictions of Orion or Pleiades.<sup>2</sup>

In a remarkable 'little book' published in 1905, author G. Schiaparelli—who was then director of the Brera observatory in Milan—discusses such issues in reasonable detail. This present article is based largely on his work.

## Orion

Schiaparelli notes that the Hebrew word *kesil* is named along with other constellations twice in Job (9:9 and 38:31), and once in Amos (5:8).<sup>3</sup> The name generally means foolish and is used this way frequently in the Bible. Referring to 'Can you loose the cords of Orion?' (NIV) in Job 38:31, Schiaparelli draws the conclusion that the Jews at the time of Job somehow envisaged in the *kesil* constellation an image of a man chained for his folly. Schiaparelli considered that only Orion could be regarded as a suitable candidate for depicting a man in the stars. Support for this notion that *kesil* refers to a man that is bound is found in the Jewish Encyclopaedia:

'The Aramaic and Syriac names of Orion have been connected with the ancient Oriental tradition

that Nimrod, who is called in the Bible a hero and mighty hunter [Genesis 10:8–10; 1 Chronicles 1:10; Micah 5:5], was fettered by God for his obstinacy in building the tower of Babel, and was set in the sky (Winer, "B.R." ii. 157). It is possible that the ancient Hebrews saw in this constellation the figure of a man who was naturally regarded as extraordinarily tall and strong ...'<sup>4</sup>

Schiaparelli supported his view that Orion was the correct interpretation by appealing to the renderings found in the Septuagint (LXX) in Job 38:31, Isaiah 13:10, and in the Latin Vulgate in Job 9:9 and Amos 5:8. Similarly the Peshitta<sup>5</sup> in Job 9:9 and 38:31 translates it *gabarra*—'a strong man'—which is the Syriac name for Orion. Interestingly the Peshitta translated it in Amos 5:8 as *'iyutha*, which Schiaparelli considers is an error as he later convincingly indicates that normally *'iyutha* refers to Hyades.<sup>6</sup> However the Jewish Encyclopaedia states that the Peshitta translates *kesil* in Amos 5:8 as *gabarra*.<sup>3</sup> Also *kesil* is not translated consistently by the LXX, which calls it Hesper in Job 9:9, nor by the Vulgate which calls it Arcturus in Job 38:31.

According to the Jewish Encyclopaedia, the Talmud also regards *kesil* as denoting Orion, stating:

'The Babylonian scribe and physician Samuel (d. 257), who was celebrated also as an astronomer, said: "If a comet should pass over Orion the world would perish" (Bab. Ber. 58b; Yer. Ber. 13c), and in the same passage of the Babylonian Talmud further declares that "if it were not for the heat of Orion, the world could not exist on account of the cold of the Pleiades, and if it were not for the cold of Pleiades, the world could not exist on account of the heat of Orion".'<sup>7</sup>

In the view of Schiaparelli there is only one brilliant constellation that fits the description of a man, namely that of Orion with its seven stars of first and second degrees of magnitude. Orion is its Greek name; the Arabs called it Al-gabbar, Egyptians Sahu, and old Indian myths Trisanku.

## Pleiades

Next Schiaparelli discusses *kimah*, which also is named along with other constellations twice in Job (9:9 and 38:31), and once in Amos (5:8).<sup>7</sup> The LXX apparently consistently refers to the singular of this as Pleiad. Aquila in Job 38:31 does likewise in his Greek version. The Peshitta in all three instances does not translate it, but merely has it in the form *kima*. However the Vulgate translates *kimah* differently in each of its three occurrences, rendering it Hyades, Pleiades and Arcturus.

The Peshitta is interesting in that all other Hebrew constellations are translated into their Syriac equivalents. The only possible reasons for the Peshitta to make an exception with *kimah* by not translating it are:

- 1) they did not know what constellation it referred to, or;
- 2) *kima* in Syriac was the same name as *kimah* in Hebrew.

The latter is more likely as numerous Syriac quotations referring to *kima* clearly do represent Pleiades, according to a list of such references made by Payne Smith.<sup>8</sup>

Professor Stern of Göttingen (1864–5)<sup>9</sup> wrote on the naming of the constellations in the book of Job. Schiaparelli refers to this in his Appendix II (pp. 163–175) and notes the following:

‘Rabbi Joshua [in the Talmud, Rosh Hashshanah, p. 11], in speaking of the Flood, says that the rain began on the seventeenth day of the month Iyar, on which *Kimah* is accustomed to rise in the morning, and the springs begin to dry up. In consequence of the perverse behaviour of men, God also changed the order of the universe: in place of its morning rising, He caused *Kimah* to set in the morning, and removed two stars from it: the springs swelled and the Flood took place. According to Rabbi Eliezer, these changes took place on the seventeenth day of the month Marheshvan, when *Kimah* is accustomed to set in the morning, and the springs increase. God reversed the order of the universe: *Kimah* rose on the morning of that day, and lost two stars. The springs continued to increase and the Flood took place.’<sup>10</sup>

Apparently Professor Stern then applied these Jewish calendar dates to the Julian calendar and showed that they correspond to the morning rising and setting of Pleiades. He thus concluded that at the time of these two Rabbis, namely the beginning of the second century AD, *kimah* referred to Pleiades. The two stars taken from *kimah* were said by the Rabbis to have been given to ‘*ayish*, which then caused the rains to diminish. This is used to validate the interpretation of ‘*ayish* by these Rabbis as Hyades. It is important to note that the Talmudic account above is based on Stern’s interpretation after applying two corrections to



Image by Robert Gendler

The Pleiades is a cluster of seven stars that the Greeks called the Seven Sisters. They are also part of Taurus the bull constellation, where they lie on the shoulder of the bull.

the story to make it intelligible and coherent. The following is an English translation of this Talmudic account:

‘R. Joshua and R Eliezer are herein consistent [with views expressed by them elsewhere], as it has been taught: “In the sixth hundredth year of Noah’s life, in the second month, on the seventeenth day of the month [Genesis 7:11]. R Joshua said: That day was the seventeenth day of Iyar, when the constellation of Pleiades sets at daybreak and the fountains begin to dry up, and because they [mankind] perverted their ways, the Holy One, blessed be He, changed for them the work of creation and made the constellation of Pleiades rise at daybreak and took two stars from the Pleiades and brought a flood on the world. R. Eliezer said: That day was the seventeenth of Marheshvan, a day on which the constellation of Pleiades rises at daybreak, and [the season] when the fountains begin to fill [12a], and because they perverted their ways, the Holy One, blessed be He, changed for them the work of creation, and caused the constellation of Pleiades to rise at daybreak and took away two stars [from it] and brought a flood on the world” ... on R. Joshua’s view we see what change there was in the work of creation; but on R. Eliezer’s view what change was there? [Emphasis and insertions are found in the English version].’<sup>11</sup>

The English translators also add a footnote at the end of this quote, which states at the bottom of that page:

‘There seems to be some confusion in the text here. To make it astronomically correct we should read (with the Seder Olam) in the dictum

[ie. statement] of R. Joshua, “When Pleiades *ris*es at daybreak”, and in the dictum of R. Eliezer, “*sets* at daybreak” [emphasis is in the original].<sup>7</sup>

Surprisingly, Professor Stern was led to believe from other considerations that these Rabbis were actually in error, and that originally *kimah* referred to Sirius (the dog), ‘*ayish* as Pleiades, *mazzaroth* as Hyades’, but maintained *kesil* was indeed Orion. Schiaparelli disputed the aberrant conclusions in a quite convincing manner.

Referring to ‘Can you bind the beautiful/chains of Pleiades?’ (NIV) in Job 38:31, Schiaparelli notes that the LXX, Aquila and the Vulgate render it this way from the Hebrew *ma’anaddoth* for chains, though the Masoretic (Hebrew) text has *ma’adannoth* which means delicate/beautiful. Some more freely interpret this as ‘sweet influences’. The interpretation of ‘sweet influences’ once led the famous oceanographer Maury<sup>12</sup> to make a connection between this biblical text and the hypothesis of Johann von Maedler. In 1846 Maedler, from the Estonian Dorpat Observatory, considered the Pleiades as the centre of the galaxy, and that one of its stars, Alcyone, was the centre of the universe.<sup>13</sup> The ‘sweet influences’ were thus considered as the force that bound the galaxy in orbit around it.



Photo by NASA-GSFC

Orion is often found by locating the three belt stars. Hanging from Orion’s belt is the sword consisting of the Trapezium (pictured here with its five massive stars) within the Orion Nebula (M42). Orion’s left knee is represented by one of the brightest stars in the night sky, Rigel. Left and right shoulders are made of the stars Bellatrix and Betelgeuse, respectively.

## Translations

To appreciate the importance of the various translations of the scriptures quoted above, the following brief details on their origins are given. The information is sourced from F. F. Bruce’s brilliant book *The Books and the Parchments: Some chapters on the transmission of the Bible*.<sup>14</sup>

- The Christians east of the Euphrates river, who were controlled largely by the Parthian empire at the time of Christ, needed translations of the Bible in their own language. This Syriac language is called Christian Aramaic, as it is written in a distinctive variation of the Aramaic alphabet. At first there were non-standard translations into Syriac, but later an official translation was instigated by Rabbulah, bishop of Edessa in AD 411 to AD 435. He used the Byzantine Greek text. The Old Testament (OT) and New Testament (NT) parts combined are called the Peshitta. The Byzantine Greek text came from Constantinople (formerly called Byzantium) in the fourth century.
- The Old Testament portion of the Latin Vulgate was translated by Jerome (his full name was Eusebius Sofronius Hieronymus) from about AD 386 to AD 405. Originally he used the LXX for his translation, but later regarded this as unsatisfactory. He then did the entire OT translation from the Hebrew Scriptures as apparently he regarded the LXX at that time as being too full of errors.<sup>15</sup>
- The Septuagint (LXX) was a translation of the Hebrew OT for Greek speaking Jews, probably begun in the third century BC in Alexandria. An official Jewish version of the first five books was probably written about a hundred years later, and quite possibly there were no official versions of the other books.
- Aquila was a Jewish proselyte originally from the coast of the Black Sea, who lived in the first half of the first century AD. He translated the OT into Greek from a newly established Hebrew text.
- The Masoretic (Hebrew) text referred to by Schiaparelli most likely referred to copies based on an edition printed in Hebrew by Jacob Ben Chayyim in 1524–1525. This was based on Hebrew manuscripts not earlier than the 14th century. It was only from 1937 that editions were printed based on more accurate manuscripts from the late tenth and early eleventh centuries.

## Conclusion

Reasons for ascribing *kesil* and *kimah* to Orion and Pleiades have been outlined above. Some will no doubt consider that these reasons are quite adequate. It is my opinion that it is not possible to be adamant about the identifications, given that the ancient translations were not consistent in their translations for *kesil* and *kimah*, and that the translations were made hundreds of years after Job, Isaiah, and Amos were first written.

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