# Understanding Unicorns in Talmudic Literature through the Lens of the Night Sky

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## I. Introduction

Few animals capture the imagination like unicorns. Legends of unicorns permeate numerous cultures over the course of centuries. Many are astonished when first encountering unicorns in halachic writings. This article explores some of these rabbinic writings and presents hypotheses as to the identity of these beasts. Specifically, this article utilizes knowledge of the night sky constellations to understand what the Sages were discussing.

#### II. The Four Unicorns

Talmudic writings reference four species of unicorn. One such passage discusses a bovine unicorn that Adam sacrificed to God.<sup>2</sup> Other Talmudic passages do not seem to mention this unicorn species, so it is likely the Sages believed this was an animal that existed only at the beginning of Creation. However, Pliny the Elder, who lived in the first century, believed unicorn oxen existed in India.<sup>3</sup>

The second creature is a human unicorn. God bestowed upon Kayin a protective sign after Kayin repented for slaying his twin, Hevel.<sup>4</sup> *Midrash Rabbah* cites an opinion that maintains God caused a horn to protrude from Kayin's forehead to defend against attacks from animals of prey.<sup>5</sup>

This article does not focus on the Biblical *re'em*, which some identify as a unicorn, because no Talmudic sources describe this animal as a unicorn. Similarly, this article does not address whether unicorns exist or are simply a legend. Rather, this article analyzes the writings of the Sages and of some then contemporaneous cultures to ascertain the identity of the Talmudic unicorns.

<sup>2</sup> Chulin 600

<sup>&</sup>lt;sup>3</sup> Naturalis Historia, http://www.attalus.org/translate/pliny\_hn8a.html (last visited September 8, 2022).

<sup>&</sup>lt;sup>4</sup> Bereishis 4:16.

Bereishis Rabbah 22:12. In my earlier work, The Secrets of the Stars, I demonstrated how certain Torah passages appear to be described by common depictions of

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Similarly, Karna, a noted Talmudic scholar, grew a horn after being cursed by his contemporary, Rav.<sup>6</sup> Karna tested Rav by challenging him with several difficult queries.<sup>7</sup> After successfully responding, Rav asked Karna's name, which is the Aramaic word for horn.<sup>8</sup> Rav then cursed Karna to have a horn develop from his eye, which the Talmud states subsequently emerged.<sup>9</sup>

The third unicorn seems to be an unidentifiable animal. The Torah informs us that the hides of the *tachash* were used in the construction of the Tabernacle. One Talmudic position maintains the *tachash* is a unicorn God materialized in that generation solely for the purposes of constructing the Tabernacle. Some interpret this Talmudic passage to mean that this animal occurs naturally and the Talmud only meant it is not easily

the night sky constellations as they were recognized in ancient times. One such depiction seems to describe the story of Kayin and Hevel. The twins of Gemini, symbolic of Kayin and Hevel, are positioned next to Orion, a blind hunter, which evokes the picture painted in the Midrash of Lemech, the blind hunter, hunting Kayin, Hevel's surviving twin (Ari Storch, The Secrets of the Stars [Israel Bookshop Publications, 2011] pp. 35-36). The star comprising Orion's right hand, Betelgeuse, derives its name from Arabic words meaning the hand of the twin, thus furthering the Midrashic storyline that maintains that Lemech's "right hand man," Tuval Kayin, directed Lemech to shoot Kayin (ibid.). Tuval Kayin's name bears his progenitor Kayin's name, which is comparable to Betelgeuse's meaning, the hand of the twin (ibid.). Continuing this imagery are the dogs of the constellations Canis Major and Canis Minor and the unicorn of the constellation Monoceros, which are adjacent to these constellations. One opinion cited by the Midrash holds that Kayin's protective sign was not a horn; rather, it was a dog (Bereishis Rabbah 22:12). It is therefore notable that in this portion of the sky one finds dogs and a unicorn, albeit not a human unicorn. A discussion regarding whether Monoceros was a recognized constellation in Talmudic times can be found later in this article.

<sup>6</sup> Shabbos 108a.

<sup>&</sup>lt;sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Ibid.

Ibid. Although the Talmud indicates the horn grew from Karna's eye, it is plausible this is an expression, and it really grew from his forehead. It is also possible that the Talmud means that a hornlike growth appeared from Karna's eye or forehead, not an actual horn; however, the literal interpretation of this passage is that Karna grew a horn.

<sup>&</sup>lt;sup>10</sup> Shemos 25:5.

Shabbos 28b; Yerushalmi, Shabbos 2:3. The opinions cited by the Yerushalmi dispute whether this animal was a domesticated animal or not and some identify it with the keresh, which is an animal that will be discussed shortly.

found.<sup>12</sup> God merely made it more prevalent in that generation for the purposes of constructing the Tabernacle.<sup>13</sup> However, the simple understanding of this passage is that this beast only existed at that moment in time.

The fourth unicorn is the *keresh*, which seems to be the only one assumed to be a naturally occurring animal. The *keresh* is an exceptionally large stag with one horn; its hide is sixteen cubits long. <sup>14</sup> The *keresh* dwells in the region referred to as *Bei Ilai*. <sup>15</sup> Rabbeinu Gershom asserts that the horn of this animal is multicolored; <sup>16</sup> whereas, Rashi claims it was used to blacken other objects. <sup>17</sup> The *keresh* is classified as a non-domesticated animal, which renders certain of its fats permissible for eating. <sup>18</sup> Supporting the assertion that this is a naturally occurring animal is its inclusion in the halachic works of Rambam, <sup>19</sup> *Shulchan Aruch*, <sup>20</sup> and *Aruch HaShulchan*, <sup>21</sup> when they discuss the permissibility to eat its fats.

<sup>&</sup>lt;sup>12</sup> Sichas Chulin 59b.

<sup>13</sup> Ibid. Sichas Chulin maintains this position regardless of whether the tachash and keresh are the same animal; however, he stresses its correctness if they are assumed to be the same (ibid.). If the two are the same, the Talmudic passage in Chulin indicates it is an animal that still exists. However, Tosefos understand the Talmudic passage in Chulin as distinguishing between the tachash and the keresh (Tosefos Chulin 59b s.v. v'keresh), which is consistent with the Bavli's distinction that the keresh is a non-domesticated animal (Chulin 59b), whereas the tachash's status as domesticated or non-domesticated is indeterminate (Shahbos 28b; but see infra note 19 [referencing evidence that some authorities may have had a variant text of the Bavli in which the keresh's status was also indeterminate]).

<sup>&</sup>lt;sup>14</sup> *Chulin* 59b.

<sup>15</sup> Ibid.

<sup>&</sup>lt;sup>16</sup> Rabbeinu Gershom, Bava Basra 16b.

<sup>17</sup> Rashi, Bava Basra 16b s.v. karna d'keresh.

<sup>&</sup>lt;sup>18</sup> *Chulin* 59b.

Mishneh Torah, Maachalos Asuros 1:12. Raavad seems to have a variant text of Rambam's Mishneh Torah in which Rambam maintains the Sages left the classification of this animal as domesticated or non-domesticated as indeterminate (Hasagos HaRaavad, Maachalos Asuros 1:12). It appears Meiri had a similar version of Mishneh Torah (Beis HaBechirah, Chulin 59b). However, the extant version of Mishneh Torah is consistent with the extant version of the Talmudic passage, which maintains this animal is considered non-domesticated.

Shulchan Aruch, Yoreh De'ah 80:4. Our editions of Tur do not reference this animal; however, Bach maintains that more accurate texts include it (Bach, Yoreh De'ah 80 s.v. v'keresh).

<sup>&</sup>lt;sup>21</sup> Aruch HaShulchan, Yoreh De'ah 80:11.

## III. The *Keresh*, the Rhinoceros, and the Giraffe

The question then arises, can we discern the identity of the Talmudic *keresh*? Many have attempted to answer this question, and this article will now focus on some of these theories. *Mosaf HaAruch* maintains that the *keresh* is the rhinoceros,<sup>22</sup> which has a distinctive horn protruding from its nose. However, the *keresh*'s depiction as found in Talmudic passages cannot be a rhinoceros because the Talmud and subsequent halachic authorities unequivocally describe the *keresh* as a kosher animal.

Some maintain the keresh is not really a unicorn; rather, it is a more familiar animal. In his attempt to identify the keresh, Sichas Chulin applies reasoning Maharam Schiff utilized with regard to Adam's unicorn ox.<sup>23</sup> Maharam Schiff posits that this ox has three horns, not one, because in one statement the Talmud refers to its "horns" in plural.<sup>24</sup> To explain the Talmudic statement that this animal has one horn, Maharam Schiff notes that the Talmud's language is superfluous when it states this ox has one horn "on its forehead," which may indicate an additional horn to the typically placed horns.<sup>25</sup> Maharam Schiff acknowledges this reading does not fit neatly in certain portions of the Talmudic passage.<sup>26</sup> Further, Maharam Schiff only suggests this reading for the unicorn ox and the tachash; he does not extend this theory to the keresh,27 presumably because the Talmud neither refers to its horn in the plural form nor limits the "single" horn mentioned as being on the keresh's forehead. Notwithstanding both these difficulties and that Tosefos explicitly state that the keresh has only one horn,<sup>28</sup> Sichas Chulin utilizes other logic employed by Tosefos to suggest that the keresh similarly has three horns with only one protruding from the forehead.<sup>29</sup> Consequently, Sichas Chulin hypothesizes that the keresh is the giraffe. The giraffe is a large animal with split hooves that chews its cud, and some males have an extra bump on their foreheads that can appear as a third horn.30

Nevertheless, it seems unreasonable to suggest the giraffe is the *keresh*. Besides the earlier cited textual difficulties, there are some basic linguistic

<sup>22</sup> Mosaf HaAruch, Chulin 59b.

<sup>&</sup>lt;sup>23</sup> Sichas Chulin 59b.

Maharam Schiff, Chulin 60a s.v. karnav d'keresh.

<sup>25</sup> Thid

Ibid. Additionally, Tosefos clearly maintain that Adam's ox only had one horn. Tosefos, Chulin s.v. v'keresh.

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Tosefos, Chulin 59b s.v. v'keresh.

<sup>&</sup>lt;sup>29</sup> Sichas Chulin 59b.

<sup>30</sup> Ibid.

problems with associating the keresh with the giraffe. Because there was no soft "c" in Greek, it was pronounced as a "k." Therefore, many Greek words that appear in the Talmud have kufs where the contemporary English spelling contains a "c." For example, the word for oceans, but the "c" needs to be restored to a "k" sounding letter to be consistent with the original pronunciation. Ceros means horn in Greek, and keresh is a transliteration of that word. If an animal's name is "horn," it stands to reason that its most distinctive feature is its horn. The giraffe's most distinctive feature is its neck; people familiar with giraffes are often unaware that some giraffes may have an extra bump on their foreheads. Further, the keresh likely only has one horn because the word keresh means horn, not horned or horns. If the keresh was a three-horned animal, we would expect its name to be the karush, meaning horned. Consequently, it seems highly unlikely that the giraffe could be the keresh.

### IV. The *Keresh* and the Constellations

As stated earlier, the word *keresh* is a transliteration of the Greek word *ceros*, which indicates this animal is something identified by the greater culture among whom the members of the Talmud lived. Words that enter Talmudic vernacular from other languages signal that these are objects or concepts first described by the general populace. Similarly, many terms in modern Hebrew are simply Hebraized versions of English words because these were first objects or concepts described by English-speaking cultures that made their way into the Hebrew-speaking world. Thus, discerning any references to unicorns or "horns" in the culture among whom our Talmudic Sages lived is helpful in understanding the *keresh*.

One place one often finds representations of concepts familiar to ancient populations is their depictions of constellations and asterisms. Celestial cartographers have historically associated their constellations and asterisms with various objects and famous people, real or legendary. For example, Ursa Major is a constellation depicting a bear, Leo is a lion, and the Big Dipper is an asterism located in Ursa Major that depicts a ladle.

There is a modern constellation that aids in identifying the ancient Persian unicorn, the constellation Monoceros, the Unicorn. Initially, it would seem incorrect to use Monoceros to help identify an ancient creature because Monoceros was seemingly first charted in the early seventeenth century by celestial cartographer, Petrus Plancius.<sup>31</sup> However, Joseph Scaliger, who lived into the early seventeenth century, is reported to have found this constellation on a Persian celestial globe.<sup>32</sup>

Supporting Monoceros' more ancient existence, and knowledge thereof by some earlier Jewish scholars, is the much earlier twelfth-century R. Avraham ibn Ezra's apparent reference thereto. In his Reishis Chochmah, Ibn Ezra describes the constellations, asterisms, and their associated astrological influences. When discussing the exact region where Monoceros was charted by Plancius, Ibn Ezra states, "Also rising there is the head of the beast that possesses a horn."33 It seems more than coincidental that Ibn Ezra positions an unidentified beast with a horn in the exact location where Scaliger is reported to have seen a more ancient version of Monoceros on a Persian globe from which Plancius may have copied. Considering most celestial globes have artistic representations of the objects depicted by the constellations and asterisms, it seems likely Scaliger and Plancius were somewhat familiar with a depiction of a unicorn as shown on an ancient Persian celestial globe. Plancius referred to this creature as Monoceros, which is similar to the word keresh as it means "single horn." Accordingly, it seems likely that there was a Persian asterism that depicted a unicorn with which some scholars, including Jewish ones, were familiar.

Monoceros' existence on an ancient Persian celestial globe casts more doubt on the *keresh* being a giraffe. Although the alleged celestial globe seen by Scaliger does not appear to be extant, it is unreasonable to state it depicted a giraffe in the place of Monoceros. Besides the aforementioned concerns of referring to a giraffe as a unicorn, Plancius created some new constellations including Camelopardalis, which means giraffe in Latin.<sup>34</sup> While there are several "duplicate" constellations, they always contain descriptors contrasting them with each other to show they are not identical; for example, Canis Major (Great Dog), Canis Minor (Lesser Dog) and Canes Venatici (Hunting Dogs); Corona Borealis (Northern Crown) and

Richard Allen Hinckley, Star Names: Their Lore and Meaning (Dover Publications, Inc., 1963), pp. 289-90.

<sup>32</sup> Ibid.

<sup>&</sup>lt;sup>33</sup> Reishis Chochmah 2:17. The translation in the article is mine; the Hebrew states, "נם יעלה שם ראש חיה בעלת קרן."

Nick Kanas, Star Maps: History, Artistry and Cartography (Springer, 2009) p. 121. The word camelopardalis is a hybrid of the words camel and pardelis. It is the equivalent of, "גמל וברדלס", "which are the Hebrew words describing the two animals the combination of which the giraffe was seen to be compared, a camel and a spotted animal.

Corona Australis (Southern Crown); Pisces (Fish) and Piscis Austrinis (Southern Fish); Triangulum (Triangle) and Triangulum Australe (Southern Triangle); and Ursa Major (Great Bear) and Ursa Minor (Lesser Bear). Further, it seems odd that Plancius would chart two identical constellations depicting the same creature while utilizing two completely different names for such constellations. Thus, knowledge of the constellations and their history calls into question the identification of the *keresh* as a giraffe.

The *keresh's* inclusion as a recognized asterism in the night sky may help identify the location of *Bei Ilai*, the region in which the *keresh* can be found. *Bei Ilai* literally means the "house above," which may reference the sky. Meaning, the Talmud may have been stating that the *keresh* is an animal of such significance that it is included in the night sky. The prime specimen can therefore be described as the stag that dwells in *Bei Ilai*. Lesser specimens may exist elsewhere in the world and not be of such gargantuan size. Similarly, that same passage of Talmud describes an animal referred to as the *tigris*, which the Talmud then refers to as the lion of *Bei Ilai*. This lion is described as possessing enormous size, which may similarly refer to the prime representation of a more perfect lion as depicted in the heavens as the constellation Leo, the Lion. Lesser specimens of more commonly found lions may be found throughout the world. Thus, the lion and unicorn of *Bei Ilai* may be the perfect specimens of lion and unicorn as depicted by celestial patterns.

## V. The *Keresh* and Monoceros

As stated above, a review of the constellations and asterisms lends credence to the identity of the *keresh* as Monoceros, which was a unicorn known to the Persians. The question then becomes, what is this Persian unicorn that was depicted by the constellation Monoceros? A unicorn is described by the fifth-century-BCE Ctesias, physician to the Persian king Artaxerxes II, in his *Indica*, a work describing creatures Ctesias believed existed in India based on secondhand reports, as such work was compiled in an abridged form by the ninth-century Photios. *Ctesias* describes this unicorn as follows:

[T]here are wild asses as large as horses, some being even larger. Their head is of a dark red colour, their eyes blue, and the rest of their body white. They have a horn on their forehead, a cubit in length [the filings of this horn, if given in a potion, are an antidote to poisonous drugs]. This horn for about two palm-breadths upwards from the base is of the purest white, where it tapers to a sharp

<sup>&</sup>lt;sup>35</sup> *Chulin* 59b.

point of a flaming crimson, and, in the middle, is black. These horns are made into drinking cups, and such as drink from them are attacked neither by convulsions nor by the sacred disease (epilepsy). Nay, they are not even affected by poisons, if either before or after swallowing them they drink from these cups wine, water, or anything else. While other asses moreover, whether wild or tame, and indeed all other solid-hoofed animals have neither huckle-bones, nor gall in the liver, these one-horned asses have both. Their huckle-bone is the most beautiful of all I have ever seen, and is, in appearance and size, like that of the ox. It is as heavy as lead, and of the colour of cinnabar both on the surface, and all throughout. It is exceedingly fleet and strong, and no creature that pursues it, not even the horse, can overtake it.<sup>36</sup>

The description of this unicorn's horn as multicolored with the middle portion being black is consistent with the descriptions of the *keresh* provided by Rabbeinu Gershom, stating it is multicolored,<sup>37</sup> and Rashi, stating it is used to blacken other items.<sup>38</sup>

Centuries prior to Photios, Pliny the Elder had referenced Ctesias' unicorn description in his *Naturalis Historia*, albeit with some striking differences. Citing Ctesias, Pliny describes this creature as follows:

[B]ut that the fiercest animal is the unicorn, which in the rest of the body resembles a horse, but in the head a stag, in the feet an elephant, and in the tail a boar, and has a deep bellow, and a single black horn three feet long projecting from the middle of the forehead. They say that it is impossible to capture this animal alive.<sup>39</sup>

This description has several inconsistencies with the earlier cited version of Photios' description, which presumably reflects Pliny possessing a different version of Ctesias' *Indica* from the version Photios used. Nonetheless, from both descriptions it appears that Ctesias' unicorn likely formed the basis of the familiar modern depiction of a unicorn as a horse with a horn; Photios' assess are similarly equine, and Pliny describes the body of his unicorn as resembling that of a horse. It is unclear which

<sup>36</sup> Ctesias | Indica, https://www.jasoncolavito.com/ctesias-indica.html (last visited September 6, 2022). Ctesias' Indica has not been preserved and is mainly studied through fragments and abridged works such as that compiled by Photios.

Rabbeinu Gershom, Bava Basra 16b.

Rashi, Bava Basra 16b s.v. karna d'keresh.

Naturalis Historia, http://www.attalus.org/translate/pliny\_hn8a.html (last visited September 8, 2022).

known animal, if any, these authors could be describing, but neither Photios nor Pliny seem to be discussing the rhinoceros or giraffe, which were suggested as possibilities for the *keresh*. Both Photios and Pliny describe an animal (a) with a horn protruding from the middle of its forehead, not nose, (b) without a distinctively long neck, (c) either being approximately the size of a horse or with the body of horse, which indicates a likelihood that its size was approximately that of a horse,<sup>40</sup> and (d) possessing several other characteristics atypical of giraffes and rhinoceroses.

Notwithstanding several similarities between the aforementioned descriptions and those attributed to the keresh, it appears they are not identical to the keresh as described by the Sages. The descriptions by Photios and Pliny describe a non-kosher animal without split hooves, but the keresh is a kosher animal. Photios' version specifically contrasts this unicorn with other solid-hoofed animals, meaning those not possessing split hooves, when he states, "all other solid-hoofed animals have neither huckle-bones, nor gall in the liver, these one-horned asses have both."41 Pliny compared the feet of this unicorn to those of an elephant, 42 which similarly indicates they are not cloven. Thus, even though Photios' version describes its unicorn in a manner consistent with the harmonization of Rabbeinu Gershom's and Rashi's description of the keresh's horn, and Pliny's version describes this unicorn with the head of a stag, which is consistent with the Sages' description of the keresh as a stag; neither can be the keresh as described by the Sages because both versions describe a non-kosher animal.

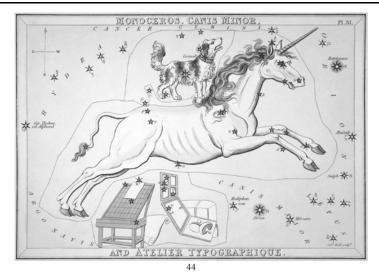
Nevertheless, there is evidence that Monoceros may represent the Persian unicorn, which is the same animal the Sages described. The constellation Monoceros' depiction, which is consistent with the familiar unicorn horse, is similar to Ctesias' wild assess or stag with a horse-like body. One notable difference is the depiction of Monoceros as a creature with cloven hooves, as seen below in an early nineteenth century depiction of Monoceros.<sup>43</sup>

The Talmudic *keresh* is described as possessing exceptional size.

<sup>41</sup> Ctesias | Indica, https://www.jasoncolavito.com/ctesias-indica.html (last visited September 6, 2022).

<sup>&</sup>lt;sup>42</sup> Naturalis Historia, http://www.attalus.org/translate/pliny\_hn8a.html (last visited September 8, 2022).

This is consistent with many European representations showing unicorns with cloven hooves (American Museum of Natural History, https://www.amnh.org/exhibitions/mythic-creatures/land/unicorns-west-and-east (last visited on September 8, 2022)). However, as mentioned above, these likely derive from Ctesias' original description. Also notable is the tail of



As mentioned above, evidence suggests this constellation was copied from a Persian globe, which likely had an artistic rendering of Monoceros overlaid on its stars. The subsequent renditions should therefore be fairly consistent with the original, which means the depiction of Monoceros on the original Persian globe likely had cloven hooves.

As discussed above, there are significant inconsistencies between Photios' and Pliny's recounting of Ctesias' unicorn, both of which were first written centuries after Ctesias lived. Such significant differences indicate the work was not well preserved. There likely were other versions containing other variations, which may have certain aspects more consistent with the original Persian description and be more similar to the description of the keresh. Some of these variant texts may have arisen from improper transmission of the original; others may have been intentional amendments based on other Persian accounts of the unicorn which likely were, like Ctesias' compilation, based on secondhand information. Tellingly, there are material differences between the way the two earlier cited works describe the unicorn's feet; Photios describes them as solid-hoofed and Pliny describes them as similar to an elephant's, which have no hooves at all. Thus, it is apparent that either the description of Ctesias' unicorn's feet was not well preserved, or portions were intentionally replaced with competing material. Considering the modern depiction of Monoceros, which has cloven hooves, likely came from a Persian globe; it is probable that cloven hooves were also a feature at least some Persian

this unicorn looking more similar to a boar's tail than to a horse's tail, which is consistent with Pliny's description.

Depiction of Monoceros in Urania's Mirror in 1825.

traditions attributed to this same unicorn, which either was in earlier versions of Ctesias' account or found in other competing accounts of the unicorn. Accordingly, it seems likely the Sages were describing the same unicorn as the Persians considering (x) the transliterated word *keresh* comes from the general parlance, and (y) the Persian traditions feature three very specific elements attributed to the *keresh*: (i) a multicolored horn with black playing a prominent role, (ii) a stag-like appearance, and (iii) cloven hooves. The discrepancies between the accounts arise due to the varying secondhand accounts as to the correct anatomy of this animal.<sup>45</sup> Thus, it seems likely the *keresh* is the Persian unicorn, which is depicted in the constellation Monoceros.

Although it certainly may be mere coincidence and based on homiletics, Monoceros' identification as the *keresh* may provide new insight into other Talmudic statements. In my earlier work, *The Secrets of the Stars*, I describe how the Sages associate some Torah concepts with various stellar objects. The *Pesikta Zutresa* aligns the twelve *Shevatim* with the zodiacal constellations based on the birth order of the *Shevatim*.<sup>46</sup> Reuven aligns with Aries, Shimon with Taurus, Levi with Gemini, and so on.<sup>47</sup> *Bamidbar Rabbah* states that each tribe had a specific flag in the wilderness, the color of which corresponded to its gemstone in the High Priest's breastplate.<sup>48</sup> Levi's flag and gemstone are described as being tricolored; white, black, and red.<sup>49</sup> Consequently, the defining colors of Levi, the *shevet* associated with Gemini, are white, black, and red. The Torah attributes to Levi the

This article does not discuss whether the Sages had direct knowledge of this animal or based their opinion on secondhand information. It only discusses the Persian knowledge foundation, which was based on secondhand accounts.

Pesikta Zutresa, Bereishis 41:1. There were forty-eight recognized constellations in the Talmudic era as seen in Ptolemy's Almagest. However, the twelve zodiacal constellations are given more importance because the sun passes through them; therefore, each month is associated with the constellation in which the sun can be located (Rashi, Rosh Hashanah 11b s.v. v'azdu). It appears that it is for this reason Ibn Ezra describes the constellations in his Reishis Chochmah by presenting the zodiacal constellations and only references the other constellations and asterisms based on their associations with these primary twelve.

As discussed at much greater length in my *The Secrets of the Stars*, there are two other methods found in Talmudic statements for aligning the *Shevatim* with the constellations of the zodiac (*Storch*, supra note 5, at pp. 61-68). However, as discussed therein, they are complementary not contradictory, and the birth order is the only one in which Levi is associated with a constellation; in the others Yosef is split into Menashe and Ephraim and Levi is removed (ibid.).

<sup>48</sup> Bamidbar Rabbah 2:7.

<sup>49</sup> Ibid.

role of teaching Torah,<sup>50</sup> which is referred to as the medicine that provides life.<sup>51</sup> Rabbeinu Bachye specifically connects the aspect of Levi's teaching Torah to its gemstone,<sup>52</sup> albeit due to its brilliance. Due to its proximity to Gemini, Monoceros is described as rising with Gemini, as seen earlier in the works of the Ibn Ezra.<sup>53</sup> The horn of Ctesias' unicorn, as described by Photios, is white, black and red and possesses great healing qualities.<sup>54</sup> It is notable that the *shevet* connected to Gemini, Levi, is epitomized by the same qualities as the distinctive horn for which Monoceros, described as rising with Gemini, is known; both are defined by their white, black and red colors, and both possess tremendous healing qualities. Accordingly, the identification of the *keresh* as the creature depicted by Monoceros, which is the Persian unicorn, presents new understanding and meaning to Levi's gemstone and banner.

## VI. The Mistaken Keresh

The understandings gleaned from analyzing the night sky may shed light on a perplexing approach found in *Bava Basra*. In an exegetical section of Talmud, the Sages examine the names of Iyov's three exceptionally beautiful daughters—Yemimah, Ketziah, and Keren Hapuch—to demonstrate that each one's name reflects her remarkable beauty.<sup>55</sup> The disciples of R. Shela stated that Keren Hapuch, literally meaning "the horn of the *puch*," bore this name because she possessed the beauty of a *keresh*'s horn,<sup>56</sup> which they see as synonymous with a *puch*'s horn. This suggestion was ridiculed by the Sages of Eretz Yisrael because the *keresh*'s horn is multicolored and exceptionally dark, which they find incongruous with a description of a beautiful woman's appearance.<sup>57</sup> R. Shela's disciples were respectable Talmudic Sages, so it is confounding how they seemingly made such an egregious error.

<sup>&</sup>lt;sup>50</sup> Devarim 33:10.

<sup>&</sup>lt;sup>51</sup> Avos 6:7.

<sup>&</sup>lt;sup>52</sup> Rabbeinu Bachye, *Shemos* 28:15.

<sup>53</sup> Reishis Chochmah 2:17.

<sup>54</sup> Ctesias | Indica, https://www.jasoncolavito.com/ctesias-indica.html (last visited September 6, 2022).

<sup>&</sup>lt;sup>55</sup> Bava Basra 16b (citing *Iyov* 42:14).

<sup>&</sup>lt;sup>56</sup> Bava Basra 16b.

<sup>57</sup> Ibid. Rabbeinu Gershom maintains it is multicolored, whereas Rashi states the horn is used to blacken other items (Rabbeinu Gershom, Bava Basra 16b; Rashi, Bava Basra 16b s.v. karna d'keresh). As shown earlier, these two opinions are likely complementary.

Recognizing that Monoceros epitomizes the keresh may provide some understanding why R. Shela's disciples compared Keren Hapuch to a keresh's horn. The Septuagint translates Keren Hapuch as "Horn of Amalthea,"58 which reveals that there was a school of thought in the Talmudic period associating Keren Hapuch with the Horn of Amalthea. In the Talmudic era, the Horn of Amalthea was seen as a specific goat's horn associated with boundless riches.<sup>59</sup> This goat was associated with the constellation Auriga.<sup>60</sup> Consequently, the Septuagint sees Iyov's third daughter as the embodiment of a horn with limitless riches that was personified by the stars of Auriga, which presumably is symbolic of her overabundant beauty. Interestingly, Auriga and Monoceros are located near each other; Auriga flanks Gemini to the east, while Monoceros flanks it to the south. It would appear that R. Shela's disciples likely intended to reference the Septuagint's interpretation, but inadvertently conflated Auriga and Monoceros considering: (a) both R. Shela's disciples and the Septuagint associate Keren Hapuch with an astronomical configuration with a distinctive horn, (b) both such celestial arrangements are in exceptionally close proximity, (c) the Septuagint's approach provides insight into Keren Hapuch's beauty, and (d) R. Shela's disciples' analysis appears inapplicable to Keren Hapuch's beauty. These disciples seem to have intended to compare Keren Hapuch to the Horn of Amalthea, but inadvertently associated her with the horn of Monoceros whose coloration was not considered pleasant for a young woman. When viewed in this fashion, the error attributed to these disciples is not as staggering. Thus, knowledge of the night sky and its associations may mitigate the severity of the error attributed to these great Sages.

## VII. Conclusion

There are four unicorns that are found throughout our Sages' writings. Three of these, however, are not considered to exist naturally; only the *keresh* occurs naturally. Although some have posited that the *keresh* may be a giraffe or rhinoceros, that seems unlikely. Based on an analysis of the history of the night sky and some understanding of some natural history as understood by those living in the Persian Empire, it seems likely that the *keresh* is the animal associated with the constellation Monoceros about

Septuagint, Job 42:14. The following verse explicitly references these daughters' extraordinary beauty (ibid. at 42:15).

David Booth, *An Analytical Dictionary of the English Language* (Cochrane and Co., 1835), p. 109. Discussions of the similarities between Talmudic understandings and the beliefs of the common culture are beyond the scope of this article.

<sup>60</sup> Ibid.

which there are varying descriptions that derive from Persian sources. This knowledge of the night sky, and its associated depictions, may also help to decipher many otherwise confusing statements found throughout the Talmud.  $\mathbf{c}\mathbf{k}$