

Members: Dr Steven Dick (USA: steve.dick@usno.navy.mil)
 Dr Wolfgang Dick (Germany: wdi@potsdam.ifag.de)
 Professor Rajesh Kochhar (India: rkochhar2000@yahoo.com)
 Dr Tsuko Nakamura (Japan: tsuko@cc.nao.ac.jp)
 Professor Il-Seong Nha (Korea: SLISNHA@chollian.net)
 Professor Woodruff Sullivan (USA: woody@astro.washington.edu)
 Professor Brian Warner (South Africa: Warner@physci.uct.ac.za)

Production of the *ICHA Newsletters* is the responsibility of an Editorial Board comprising Dr Ileana Chinnici (Italy), Professors Gurshtein and Stephenson, and Dr Orchiston. Newsletters are scheduled to appear in June and December.

The official establishment of a genuine Inter-Union Commission by the two parent Unions is a major step forward for the history of astronomy community. IAU Commission 41 was founded in 1948, and for decades there has been close co-operation between colleagues from this Commission and those associated with the DHS/IUHPS. During the 1970s an attempt was made to have C41 formally recognized as a joint commission of the two Unions, but this initiative was unsuccessful.

However in 1994 the idea somehow took hold that C41 had become 'A joint IAU-IUHPS Commission' (*IAU Transactions XXIB*, p.207), even though its status was unchanged, and this notion was perpetuated through the 1994 *ICSU Yearbook* (see p.104). Once this fiction of a 'Joint Commission' or 'Inter-Union Commission' was established, it was accepted without question until the true situation was discovered in late 2000.

The quest for a true Inter-Union Commission then became a priority of the C41 OC, and we are delighted to see so pleasing an outcome. Under the aegis of the ICHA, historians of astronomy worldwide can look forward to an era of unprecedented co-operation and harmonious collaboration. Finally, on behalf of all members of the ICHA we would like to thank the General Secretaries of the IAU and the DHS/IUHPS for their unstinting support and encouragement.

Professor F. Richard Stephenson (President, ICHA)
 Professor Alexander Gurshtein (Vice-President, ICHA)
 Dr Steven J. Dick (Immediate Past President, IAU C41)
 Dr Wayne Orchiston (Secretary, ICHA)

The Bull of Heaven in Mesopotamian Sources

Arkadiusz Sołtysiak

Abstract. This paper deals with the imagery of the constellation Taurus in the cultures of ancient Mesopotamia. The constellation appears explicitly in the well known story about Gilgameš, in which the Bull of Heaven attacks Gilgameš on the order of Inanna, the deity associated with the planet Venus. It can be argued from other sources that as early as the third millennium BCE the Bull was particularly related to this goddess and to An, the god of heaven, both of whom were worshipped in the city of Uruk, itself ruled by Gilgameš according to Mesopotamian tradition. The Bull of Heaven was represented pictorially in association with the gate of the heavenly palace of An. The later traditions and the iconography of the Bull of Heaven are also explored in the paper.

Introduction

More than three decades ago Willy Hartner published a paper on the lion–bull combat in the iconography of ancient Near East.¹ He argued that at least some representations of a lion catching a bull by its neck are astral allegories illustrating the simultaneous culmination of Leo and setting of Taurus. Moreover, in Hartner's opinion, pictures of a scorpion and an ibex, frequently present in Mesopotamian glyptic from the fourth millennium BCE on, can be associated with the constellations Scorpius and Capricornus. In the epoch –3000 all four constellations more or less exactly covered the four cardinal ecliptic points and Hartner concluded that this was the reason for the frequent presence of these four animals in Mesopotamian and, more generally, Near Eastern iconography.

However, Hartner's original thesis can be falsified on the grounds of Mesopotamian sources. First, the four animals were, if not frequent in Mesopotamia (as were bulls and scorpions), then at least well-known (as were lions). Thus, their presence in iconography seems natural. Second, although Hartner chose some pictures (mainly engraved on cylinder seals) with combinations of animals which were favourable for his thesis, there exist hundreds of other depictions of bulls, lions, scorpions, ibexes, serpents, sheep, birds, fishes and another animals in hundreds of combinations. Although no statistics have been collected so far, there is

no indication that the combinations of Hartner's quartet would be significantly more frequent when we take these other images into account. Third, and most important, depictions of Taurus, Leo, Scorpius, and Capricornus and their descriptions in cuneiform texts from first millennium BCE sources show no trace of their assumed treatment as a whole quartet. Even the pair of the bull and lion is not attested in Mesopotamian astronomical and astrological sources.

The dispute with Hartner's thesis is not the main subject of the present paper. Rather, it serves only as a starting point for a discussion of characteristics of Taurus in ancient Mesopotamia. From Hartner's quartet, this constellation is best documented in the original sources and I will describe not only its sure iconic representation, but also a set of mythological and ritual texts in which it appears. For that reason this constellation may serve as an example of astral symbolism in ancient Mesopotamian traditions.

In ancient Mesopotamian astronomy two constellations bore names relating to the bull. Few Old Babylonian star-lists, written in Akkadian, mention *kusarikku*, which has been identified by F. Gössmann as Ophiuchus with a part of Serpens² and by H. Lewy as Centaurus,³ although such identifications were based only on the fact that in the texts *kusarikku* appeared between *enzu* 'she-goat' = Lyra and *bašmu* 'viper' = Hydra (?). The Akkadian name *kusarikku* was equated with Sumerian *gud.dumu.an.na* 'bull, son of heaven', *gud.dumu.dUtu* 'bull, son of Sun-God', or, most frequently, simply *gud.alim* 'a bull'.⁴ The name of the constellation *kusarikku* appears almost exclusively in the so-called 'Prayer to the Gods of the Night' and its duplicates.⁵ In Sumerian mythological texts *gud.alim* belongs to the monsters defeated by Ninurta or Ningirsu.⁶ Later, in the second millennium BCE, *kusarikku* was counted among the monsters of Tiamat defeated by Marduk, an idea apparently adopted from the earlier theology of Ninurta. The name of *kusarikku* appears in *Enuma eliš*, the creation myth, and in inscriptions of the Babylonian kings referring to this text, Agum I⁷ and Nabu-kudurri-ušur II.⁸ Figurines of *kusarikku* were used also in later apotropaic rituals.⁹

The second constellation bearing the name of a bull is the Sumerian *gud.an.na* 'bull of heaven', equated with the Akkadian *elu*. In lexical texts it is separated from *kusarikku*, although both names occur one after the other. The two names never appear in the same astronomical text and we cannot exclude the possibility that they actually refer to the same constellation. The Bull of Heaven can be definitely identified as Taurus. There is much more evidence for the Bull's connection with Taurus than

for that with *kusarikku*. The Bull appears successively as a monster defeated by Gilgameš, an astral attribute of An, the god of heaven, and a constellation of the third month of the Mesopotamian calendar. A set of pictures representing the Bull of Heaven can also be found in Mesopotamian glyptic and in astrological diagrams of later tradition.

The Bull of Heaven and Gilgameš.

The most impressive narrative on the Bull of Heaven belongs to the story of Gilgameš, the semi-legendary king of Uruk.¹⁰ The Sumerian text originated most likely in the court of the rulers of third dynasty Ur (2060-1950 BCE). These rulers, who controlled most of Mesopotamia, deified themselves and named Gilgameš, by that time already one of Underworld deities, their brother and companion. There exists a set of separate Sumerian stories about Gilgameš, composed around the end of the third millennium. Subsequently an Akkadian epic emerged drawing on theories and plots found in the collection of Sumerian stories, and the various stories were finally combined into a single standard Babylonian version consisting of twelve tablets.

The Sumerian story of Gilgameš and the Bull of Heaven is preserved in three badly damaged copies, including a *zà.mí* song for Inanna. In the opening passage Inanna tries to stop Gilgameš, who wishes to 'catch (?) mountain bulls (*gud.kur.ra*), to fill the cow-pens, (...) to catch (?) mountain sheep, to fill the sheepfolds'. The next part is almost illegible and after a lacuna Inanna demands the Bull of Heaven (*gud.an.na*) from her father An. She wants to drive the animal against Uruk in order to kill lord Gilgameš. In the ensuing dialogue amongst the deities some peculiarities of the Bull of Heaven are announced: it can stir up the waters and leave gigantic cowpats on the earth, its natural pasture is on the horizon and it 'can only graze where the sun rises'.¹¹ In these words the astral character of the Bull of Heaven is made explicit. In spite of aversion to Inanna's request, An gave up and let her bring the Bull of Heaven down to the city of Uruk. There it 'devoured the pasture, and drank the water of the river in great slurps, (...) but its thirst was not satisfied'. Gilgameš, with the help of his slave Enkidu, defeated the Bull, shared out its meat to the people and made flasks from its horns for pouring oil to Inanna. The goddess herself watched the scene of combat from the top of the temple ramparts. Gilgameš, we are told, hit her 'with a haunch, made her flee away like a pigeon, and demolished those ramparts'. In the standard Babylonian cycle, the story about Gilgameš and the Bull of Heaven is the main thread of the sixth tablet. When the hero

returned from his previous expedition against Humbaba, Ištar (the Akkadian counterpart of Sumerian goddess Inanna) saw him and desired to make him her lover. However, Gilgameš refused her courtship in a very offensive way and, furious, Ištar went up to heaven, to Anu and Antu. As in the Sumerian story, the goddess forced the god of heaven to let her have the Bull of Heaven. In the Böhazkoi version Anu has to bind a six month old bull for Ištar. The animal devoured all the pastures, drank all the water in the Euphrates and defeated three hundred young Uruk citizens. Then Gilgameš and his friend Enkidu attacked the Bull and after a short combat they killed it. 'When they had struck down the Bull of Heaven, they pulled out its innards, set them before Šamaš [the sun god], backed away and prostrated themselves before Šamaš'. Afterwards Enkidu pulled out the haunch of the Bull and slapped Ištar's face with it. In this version Gilgameš dedicated the horns to his father Lugalbanda and organised a feast,¹² when Ištar gathered all the harlots and prostitutes to weep on the haunch of the Bull.

Both versions of the narrative reveal the same background of introduction of the Bull of Heaven into the story about Gilgameš and Inanna/Ištar: in the beginning the Bull grazes on the eastern horizon, and the Sun-god Šamaš withdraws from it. It is possible, therefore, that the heliacal rising of the constellation Taurus may be the prototype of the literary motif. When the original story was composed, in the epoch – 2000, this phenomenon occurred shortly after the spring equinox and thus about the beginning of the new year in Mesopotamia. Of course, in the lunar calendar, in which the new year must be linked to the new moon, the correlation may not be exact. Moreover, about two weeks elapse between heliacal risings of the Pleiades and Aldebaran, both stellar objects belonging to the Bull of Heaven in Mesopotamian uranography, at least in the second millennium. This lack of precision is not important, however, because it can be safely assumed that at the end of the third millennium BCE the first visibility of the Bull of Heaven on the eastern horizon was expected to coincide with the beginning of the new year and with the beginning of harvest time, which in Mesopotamia happens in April. Furthermore, it also links with the New Year festival and the ceremony of sacred marriage,¹³ which is attested in sources from the beginning of the second millennium, but may be safely dated back to the third dynasty Ur (c.2060-1959 BCE), when the deified Gilgameš was seen as the model ruler.

In the rituals of sacred marriage known from the Uruk tradition, a deified ruler played the part of Dumuzi, the god associated with

vegetation, who made love with Inanna/Ištar, died and was abducted to the Underworld. In many sources the goddess herself is identified as the inspirer of this death. In the famous myth Inanna descends to the Underworld and can leave only in place of someone else. Her husband Dumuzi, presented as the king of Uruk, becomes this substitute. In the beginning of the Akkadian story about Gilgameš and the Bull of Heaven, the hero enumerates Dumuzi and five other betrayed lovers of Ištar and concludes that he wants to escape their fate. Next, the feast and the cry of Ištar's harlots, which ends the Akkadian version of the story, are reminiscent of the lamentations after Dumuzi's death, known from many sources¹⁴.

All these elements assume a clear shape when the text is related to the sacred marriage ritual. Gilgameš, as the king of Uruk, is obliged to become Inanna's spouse and to ensure her friendly attitude to the whole city and its crops. However, he refuses to fulfil this duty, because it implicates his mortality. The narrative shows that his general aim was to become immortal. The angry goddess uses the Bull of Heaven against Gilgameš and against the harvest of Uruk, which we may assume is because this animal is associated with the harvest time in the seasonal calendar. However, the hero demonstrates that he can change the decrees of Inanna, the main goddess of Uruk, and can kill the Bull of Heaven. He is able to save the crops of his city and simultaneously avoid the fate of Dumuzi. Such a motif, used by the rulers of third dynasty Ur, who referred to the tradition from Uruk, could serve both as an explanation of their deification and as a commentary on their role in the sacred marriage ritual. The direct evidence for this hypothesis can be found in a text from the reign of Šulgi, the second and most important ruler of the third dynasty, who in a set of texts presented himself as the deified ruler. His Hymn B states that the ruler hunted the Bull of Heaven,¹⁵ a statement which appears only in this text and clearly refers to the Gilgameš story. However, the Bull itself was also mentioned by a few other sources from the third millennium BCE, testimony that it served as a well-recognised symbol.

In 'Cursing Agade', the text describing the fall of the Akkadian empire as the result of Naram-Sin's impiety, 'Enlil's frowning brow had killed Kish as were it the Bull of Heaven (gud.an.na)'.¹⁶ This passage, opening the whole story, relates to the state of affairs when Sargon the Great (c.2360-2305 BCE) began to dominate the cities of Sumer. In the opinion of G. Offner, since the signs gud.an.na in Akkadian could be replaced by the phonetic notation *a-lu-u*, the metaphor concerns the *alu*-demon¹⁷.

However, such an interpretation seems very unlikely and it is much more probable that the Bull of Heaven in 'Cursing Agade' refers to the story about Gilgameš. Both texts are more or less contemporary and their authorship may be assigned to the same tradition of Ur III court scribes, as can the comparison of a roof-beam of Enki's temple in Eridu to the Bull of Heaven in the Sumerian story about the journey of Enki to Nippur.¹⁸ All this testifies that the mythological representation of the constellation Taurus was relatively popular in the last century of the third millennium. However, there is a single piece of evidence that the origins of the motif of Gilgameš defeat of the Bull of Heaven may be dated back at least to the times of Akkadian domination. In one of the texts from Ebla these two were mentioned together (the Bull of Heaven as gud.an), and although the context is not clear the earlier origin of this motif, at least in oral tradition, seems likely.¹⁹ The Bull of Heaven therefore remains amongst the eldest known symbolic figures of a constellation in Mesopotamian tradition, if not the earliest.

3. The Bull of Heaven and the Palace of Anu.

In the Gilgameš story two deities are particularly related to the Bull of Heaven: An/Anu, the god of heaven who appears as the original disposer of this mythological animal, and Inanna/Ištar who takes possession of it. The first relation seems clear at first, considering the position of An/Anu in cosmological schemes. However, the later astronomical sources offer a less obvious but much more interesting explanation.

In the series *mulApin*, the handbook of astronomy from the late 2nd millennium BCE, and related texts, the visible hemisphere is divided into three parts, assigned to three main gods of Mesopotamian cosmology: Anu, Enlil, and Ea.²⁰ According to this division, Anu rules the central zone immediately north and south of the celestial equator, Enlil's domain covers the northern part, including the circumpolar regions, while Ea rules the south. It is worthy of note that this assignment does not agree with the alternative cosmological scheme in which Anu rules the upper part of the universe, Enlil the middle and Ea the lower part. The list of stars and constellations included in *mulApin* is organised according to this division: thirty-two of them (and Jupiter) belong to the heaven of Enlil, nineteen (and four other planets) to the heaven of Anu, and fifteen to the heaven of Ea. Among them, two are particularly related to Anu: the Crab (Cancer, Enlil 7) and the Jaw of the Bull (i.e. Aldebaran and the Hyades, the western part of the Bull of Heaven, Anu 6), called respectively the seat of Anu (*šubat Anim*; I i 7) and the crown of Anu (*age Anim*; I ii 1).

The last designation appears also in the earlier so-called Astrolab B [B i 8]. Two other near-by constellations were related to Anu in other texts. In an apotropaic ritual the Twins (Gemini, Enlil 5 according to *mulApin*) were addressed as 'strong [sons] of Anu, whose [dwelling]s in the clear heavens are exalted'²¹, and the True Shepherd of Anu (Orion, Anu 8), both in *mulApin* and in other texts was attributed to Papsukkal, the vizier of Anu and Ištar. Such attribution was exploited in late esoteric explanatory text for a ritual celebrated in Ekur (Enlil's sanctuary in Nippur) in the sixth month (Elulu); according to the description, Marduk kills Anu and puts his skin on the True Shepherd – Orion²².

All four of these constellations lie in the same region of sky, close to the intersection of the Milky Way and the celestial equator. This region seems to have been identified by Mesopotamian sky-watchers as the gate to the palace of Anu. Such an interpretation is based both on astronomical texts and on ritual and mythological ones. For example, there are more or less clear references to Papsukkal (called also Ninšubur) as the vizier of Anu in heaven²³. The most detailed passage concerning the gate to the palace of Anu may be found in the well-known story about Adapa (composed before the fifteenth c. BCE). This tells how Adapa enters the path leading to the heaven of Anu and meets its two guards – Gišzida and Tammuz. Both deities are well attested in Mesopotamian sources, mostly under the names Ningišzida and Dumuzi. In later astronomical texts (from the fourteenth to eleventh centuries BCE on) the first clearly associated with the constellation Serpent (Hydra), and the second with the constellation Hired Man (Aries). However, there is some evidence that in some ritual texts Dumuzi was related to the constellation True Shepherd of Anu (Orion), which was associated with Anu's vizier Papsukkal in astronomical sources.²⁴

A number of secondary sources suggest that the palace of Anu lies in the region of the Milky Way, between Taurus and Cancer, with the Milky Way interpreted as the path leading to its gate.²⁵ The Jaw of the Bull of Heaven was called Anu's crown and the whole constellation Taurus was very likely interpreted as the astral attribute of Anu. It is worth adding here that during the late Babylonian *akitu* ritual of the seventh month, the images of Anu and a bull were escorted by the image of Papsukkal and placed together in a niche.²⁶ A sacrifice of a bull for Bel was performed and Anu's name appears in the associated ritual text, though unfortunately the passage is seriously damaged.²⁷ Nevertheless, the relation of Anu and the Bull of Heaven seems clear in Mesopotamian uranography.

4. The Bull of Heaven and Inanna/Ištar

The association of the Bull of Heaven with Inanna, the goddess of love and violence (worshipped mainly in Uruk), whose astral attribute was the planet Venus, requires further explanation. The story about Gilgameš also belonged to Uruk tradition. In some hymns Inanna had been presented as the goddess who usurped An's power or at least forced him to accept her as the queen of heaven. For example in hymn FLP 2627 (dated twenty-first to seventeenth c.BCE) we read that Inanna put on An's crown and the garment of kingship, took An's sceptre in her hand, sat on his throne and took the power of all lands.²⁸ In view of the fact that the constellation of the Jaw of the Bull was called An's crown then, even if this uranographical association is not present this time, Inanna's position as the queen of heaven implies that the Bull of Heaven should also be counted among her attributes.

The text CBS 7849 introduces a new thread.²⁹ It contains the name of Amar-Suen of the third dynasty of Ur, in which the high priest (en) of Inanna is called the epithet 'Great Bull of Heaven' (gud.gal.an.na). In Mesopotamian sources this compound appears more times as the name of Gugalanna, the god connected with the Underworld. In the Sumerian version of the descent of Inanna to the Underworld, the goddess can enter the realm of death only when she declares that her aim is to take a part in funeral rituals of Gugalanna.³⁰ This name appears only once in the story; when Inanna eventually enters the Underworld, dead Gugalanna is never mentioned. In the list of gods An=*Anum*, edited about the middle second millennium, he is mentioned as Ereškigal's husband; this time his name is written as gú.gal.an.na.³¹ In opinion of W.G. Lambert Gugalanna could be identified with Alla, one of the dying gods, whose blood, according to the text KAR 4, served as the substance for the creation of mankind and whose female form Allatum was equivalent to Ereškigal.³² However, the identification of Gugalanna with the Bull of Heaven is also possible and harmonises with the substance of the story about descending Inanna. The descent itself, and the eventual release, can be interpreted as a mythological commentary on the conjunctions of Venus.³³ The dying Bull of Heaven's presence in the Underworld might suggest the period of invisibility of Taurus after its heliacal setting (the beginning of April in the epoch when the story was composed) which can be correlated with the conjunction of Venus once in its eight-year period. It also explains why Inanna used the death of Gugalanna as the argument why she should be let into the Underworld. In Mesopotamian tradition the stars and other celestial bodies were frequently related to the gods' visits to the

Underworld, and at least in the case of Dumuzi the descent and return were presented as the death and the regeneration; *nota bene* it occurs in the same story, because Inanna after her return to the earth, when she was forced to fix a substitute in the Underworld, sentenced her husband Dumuzi to death.

Of course, the identification of Gugalanna with the Bull of Heaven is not completely certain, but its explanatory value is considerable. None the less, the relation of Inanna and the Bull seems to be twofold: first, there's the usurpation of the An's throne and his attributes, including uranographical ones, and second, there's the astronomical phenomena concerning conjunctions of Venus and the constellation Taurus.

5. Later calendars and esoteric traditions.

The story about Gilgameš is the only text in which the Bull of Heaven acts as mythological character. However, the Mesopotamian name of the constellation Taurus occurs in numerous astronomical and calendar texts from the second and first millennia. In the menological commentary on so-called Astrolab B, the third month Simanu (May/June) was associated with the Jaw of the Bull.³⁴ The Jaw was equated here with the crown of Anu.³⁵ The later list of stars, BM 55502, counts the Bull of Heaven among the stars of the heaven of Ea and calls the whole constellation the crown of Anu, also associating it with the third month.³⁶ In sources from the sixth century the Bull of Heaven was related to the second month,³⁷ a shift which may result from the difference between the heliacal risings of Aldebaran and Pleiades, the latter being more important in later calendars.³⁸

In the tablet BM 55466+, a commentary on *Enuma eliš*, the creation myth, the Bull was equated with the Scorpion by the homographical sequence gir = zuqâqîpu ('a scorpion'), gir = lû = [a]lpu ('a bull').³⁹ The purpose of the equation of these constellations was not explained, but it might be due to their position near opposite branches of Milky Way. The Bull of Heaven also appears also in the ritual of covering of the cultic kettle-drum with a bull skin (TCL 6, 91). The text, which originated in the seventh century or somewhat earlier, was supplemented by a diagram in which the Bull of Heaven has been drawn.⁴⁰ The diagram is divided into three columns, related to three cosmological gods Anu, Enlil, and (not inscribed) Ea. Its complete description is not necessary here. However, it contains the names of the gods associated with the handles of the drum, which appear also in the text of the ritual itself. In the left column the drum is shown and oriented, according to the inscription, to

the west. In the central column the bull lies close to the cuneiform captions reading 'the Bull of Heaven' (^{mul}Gú.an.na) and 'the Bull's head directed to Enlil' (see fig. 1). The full interpretation of the ritual and supplementary diagram is impossible, but the association between the Bull of Heaven and the sacrificed bull, which afforded the skin for covering the drum, may be noticed. This representation is very important, mostly because the representation of the Bull is unequivocally identified by the inscription. The iconographical scheme is peculiar enough: the bull kneels down with its foreleg, the hind legs lie on the ground, the hump is clearly shown.

6. Iconography of the Bull of Heaven.

The above-mentioned diagram is not the only definite representation of the Bull of Heaven. There is also the late (Seleucid) astronomical fragment VAT 7851, which represents the Moon, the Pleiades and the Bull and contains inscribed names of these celestial bodies. The figure of the Bull is partially damaged, but one can see that it lies with stretched forelegs, turns its head away and has a considerable hump.⁴¹ There are also other representations of a humped lying bull in the glyptic from late periods,⁴² which are usually interpreted as the images of the Bull of Heaven,⁴³ although there are no inscriptions.

This type of iconographical scheme appears as early as the Akkadian empire (c. twenty-third c BCE) on the cylinder seal of Adda, a scribe.⁴⁴ The main motif is Utu/Šamaš, the sun-god emerging from the mountains, close to the goddess represented above the horizon and easily recognized as Inanna/Ištar. Enki/Ea and another god (probably Ninurta or Ningirsu) are positioned on both sides of the rising sun. The bull, very similar to the one presented on the diagram TCL 6, 91, occupies a place close to the mountains (fig. 2). Although it has been interpreted as a solar symbol, for the bull frequently appears as the attribute of Utu/Šamaš, the bulls of the sun-god are generally represented as protomas or standing animals, rather than lying down. Although the scene cannot be related to any known written source, the appearance of the sun-god and Venus-goddess strongly suggests its astral character and in that case the representation of the Bull of Heaven seems to be justified and to stand for the heliacal rising of Taurus.

The cylinder of Adda has no known analogies, but in contemporary glyptic one motif portraying the bull of the same type occurs fairly frequently: there are at least a dozen known cylinder seals representing a

Fig. 1. The Bull of Heaven depicted on tablet TCL 6 pl. 91, Seleucid era, third - second c. BCE [H.C. Hunger, *Astrological Reports to Assyrian Kings*, (States Archives of Assyria 8, Helsinki, 1992), p. 40, fig. 3], with kind permission.

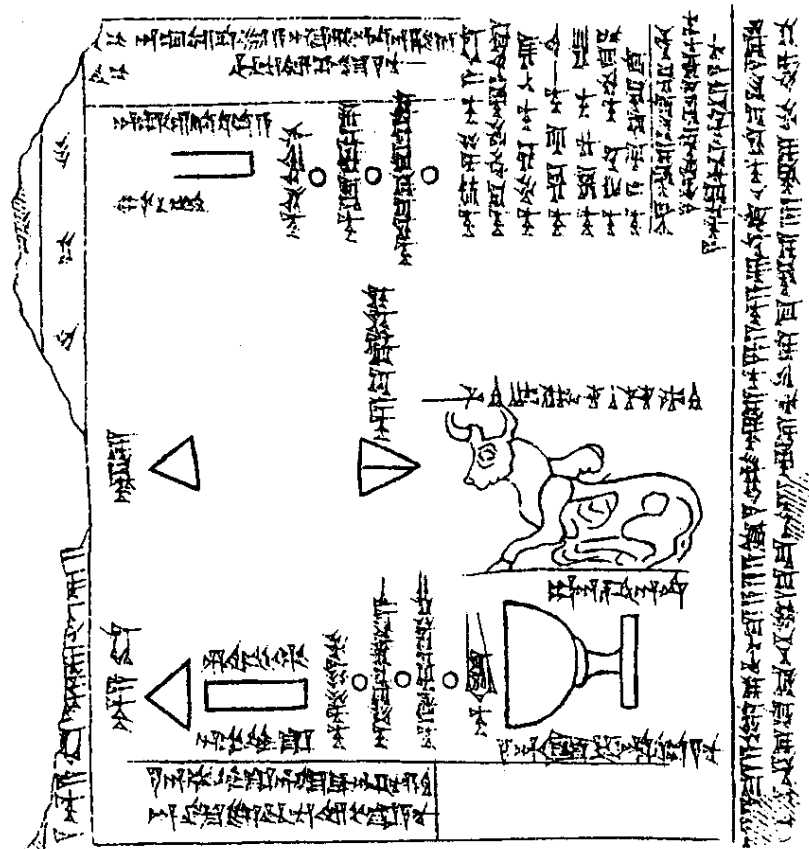


Fig. 2. The cylinder seal of Adda, twenty-third c. BCE [M.-T. Barrelet, 'Étude de glyptique akkadienne', *Orientalia – Nova Series*, (Rome 1970), Vol. 39, fig. 14], with kind permission.



kneeling bull with a closed gate above its back. Wings or rays emerge from the gate and thus the motif is usually called 'an ox and winged gate'.⁴⁵ It has been interpreted as the representation of heavenly or real temple, a movable altar or rising Sun: the complete lack of written commentaries on the scene is conducive to such a variety of explanations. Other elements usually fill the picture besides the gate and the bull: a star or a crescent in the field, a sitting deity who reaches out a hand to the bull, and a kneeling character holding up the gate. In only a few singular cases is the scene extended. According to Henri Frankfort the seated deity is Inanna holding the Bull of Heaven,⁴⁶ while E. Douglas Van Buren suggested that the goddess is leading the Bull out of the gate.⁴⁷ Since Inanna/Ištar was the protective goddess of Agade and her theology in Uruk flourished at that time, the identification seems probable. However, the lack of comparative sources requires great caution in interpretation: it is not certain whether the story about Gilgameš and the Bull existed as early as the twenty-third century BCE. None the less, the style of the bull with the winged gate agrees here with the later iconographical standard of the Bull of Heaven.

The motif of 'an ox and winged gate' ceased to be represented in Mesopotamia after the fall of the Akkadian state (c.2180 BCE), but it still appeared in Syrian glyptic (eighteenth - seventeenth c. BCE), although in somewhat altered form. The gate on the back of the kneeling bull has been broadened and filled with a picture of a goddess.⁴⁸ The kneeling bull

also appears in some cylinder seals from Kaneš, an Assyrian colony in Anatolia.⁴⁹ In spite of a gap in time as well as in space between the two series, the Syrian representations seem to refer to the Akkadian ones, although the background of the reference is completely unclear.

A few scenes including a bull on later cylinder seals are identified by some authors as the depictions of the battle of Gilgameš and Enkidu against the Bull of Heaven. Such pictures are present from the fourteenth until the sixth centuries BCE and do not form a coherent series.⁵⁰ Most of them originated in northern Mesopotamia. Usually there is a winged standing bull attacked by two human figures; the greater one sometimes bears a divine tiara on his head. In a few cases the bull resembles a sphinx. The iconography of the bull differs strongly from that described above; most probably the scenes of this kind originated in local traditions of depicting the Gilgameš story, devoid of the connection with the iconography of the Bull of Heaven present in southern Mesopotamia, chiefly in the tradition from Uruk. The standing bull as the representation of the Bull of Heaven might also be depicted on the facades of some Assyrian temples and on the 'black stone' of Asarhaddon, as a part of a kind of astral code.⁵¹

7. Recapitulation.

The character of the Bull of Heaven, as presented in the Mesopotamian sources, seems to be rather clear. It appears as the mythological actor and the antagonist of Gilgameš before the twenty-first c. BCE. It is very likely, however, that as early as in the Early Dynastic period (c.2850-2360 BCE) the link between the Bull of Heaven and the uranographical abode of heavenly An was established in the tradition of Uruk. In the Old Akkadian period (c.2360-2180 BCE), when the theology of Inanna/Ištar as the supreme deity of the empire was established, it is likely that the motif of the taking possession of the Bull by Inanna came into existence. The rulers of third dynasty Ur (2060-1950 BCE), calling themselves the brothers of Gilgameš and frequently referring to the theological tradition of Uruk, included this motif in their court propaganda and spread it throughout Mesopotamia.

Later, the story about Gilgameš lost its close connection with Uruk and became popular not only in Mesopotamia but also in other regions of the Near East. The Bull of Heaven was the subject of local re-interpretations, as may be seen in images from northern Mesopotamia and Syria. Independently, the tradition concerning the uranographical position of the abode of An/Anu was still preserved in astronomical sources, such

as the *mulApin*, and was eventually used in texts of the late second and first millennia BCE. Of course, in numerous astronomical and astro-mantical texts the name of the Bull appears with no mythological background, simply as the name for the constellation Taurus, or as the designation of the season of its heliacal rising.

The most mysterious aspect of the history of the Bull of Heaven is the similarity of its iconography both in the Old Akkadian period and in late astronomical and esoteric tablets, in spite of a break of more than a thousand years, with the exception of local interpretations of the Gilgameš story or possible continuation of the 'ox and winged gate' motif in Syria. Such similarities may be explained as the result of analogical projection of the shape of the constellation which resembles the foremost part of a kneeling bull with a slanted head. However, a direct influence cannot be excluded due to the survival, or possible rediscovery, of Old Akkadian cylinder seals in later times.

Most generally, the Bull of Heaven first appears in the mythological context as the acting character, and was only later reduced to the name of a constellation. It seems likely that in the third millennium BCE, when astronomy was neither so developed nor so important as in later times, the celestial features were interpreted chiefly in mythological and cultic categories. The representation of the constellation Taurus as the bull can be easily identified due to the use of the identical name in mythological and later astronomical sources, as well as the description in the Gilgameš story. One cannot exclude, however, the possibility that other astral motifs are expressed in a less evident manner in mythological narratives. More certain is the gradual development of the Mesopotamian conception of the constellation, which arose from the links between the cycles of visibility of the most easily recognised constellations, the seasons and the festivals, expressed in mythology and ritual. Only later did the technical aspects of astronomy begin to prevail and to influence the esoteric re-interpretation of traditional mythological motifs.

Acknowledgments. I would like to express my gratitude to Dr. David Brown for his careful and detailed criticism of my various ideas concerning possible astral motifs in Mesopotamian traditions. I also thank the Polish Science Foundation (Fundacja na Rzecz Nauki Polskiej), which awarded me a scholarship for the year 2001.

Abbreviations: BM – British Museum, London; CBS – Collection of the Babylonian Section, University of Pennsylvania Museum; FLP – Free Library of Philadelphia; KAR – Keilschrifttexte aus Assur religiösen Inhalts; TCL – Textes cunéiformes, Musée du Louvre, Paris; VAT – Vorderasiatische Abteilung Tontafel. Translations from Sumerian after J. Black – G. Cunningham – E. Robson – G. Zólyomi, *The Electronic Text Corpus of Sumerian Literature* (Oxford 1998–2001; <http://www-etcsl.orient.ox.ac.uk/>), translations from Akkadian after Stephanie Dalley, *Myths from Mesopotamia: Creation, The Flood, Gilgamesh and Others*, (Oxford – New York, 1989), unless stated otherwise.

References

1. W. Hartner, 'The Earliest History of the Constellations in the Near East and the Motif of the Lion–Bull Combat', *Oriens–Occidens*, (Hildsheim, 1968).
2. F. Gössmann, *Planetarium Babylonicum oder die Sumerisch-Babylonischen Stern-Namen*, (*Sumerisches Lexikon* 4:2, Roma, 1950), p. 23.
3. H. Lewy, 'Ištar-šad and the Bow Star', *Studies in Honor of Benno Landsberger on His Seventy-Fifth Birthday, April 21, 1965*, ed. H.G. Güterbock and T. Jacobsen, (*Assyriological Studies* 16, Chicago, 1965), p. 278.
4. F.A.M. Wiggermann, *Mesopotamian Protective Spirits: The Ritual Texts*, (*Cuneiform Monographs* 1, Groningen, 1992) [hereafter Wiggermann, *Protective Spirits*], p. 52, 176.
5. L. Oppenheim, 'A New Prayer to the "Gods of the Night"', *Studia Biblica et Orientalia III: Oriens Antiquus*, (*Analecta Biblica* 12, Roma, 1959), p. 296; C.B.F. Walker, 'The Myth of Girra and Elamatum', *Anatolian Studies*, (1983), Vol. 33, p. 146–147; E. Reiner, *Astral Magic in Babylonia*, (*Transactions of the American Philosophical Society* 85, Philadelphia, 1995) [hereafter Reiner, *Astral Magic*], p. 66; J. Oelsner – W. Horowitz, 'The 30–Star–Catalogue HS 1897 and the Late Parallel BM 55502', *Archiv für Orientforschung* (hereafter *AfO*), (Horn, 1997–1998) [hereafter Oelsner–Horowitz, 'Catalogue'], Vol. 44–45, p. 183.
6. W.G. Lambert, 'Ninurta Mythology in the Babylonian Epic of Creation', *Berliner Beiträge zum Vorderen Orient*, (Berlin, 1986), Vol. 6, p. 58.
7. W. Horowitz, *Mesopotamian Cosmic Geography*, (*Mesopotamian Civilizations* 8, Winona Lake, 1998), p. 108.

8. A.R. George, 'Babylonian Texts from the Folios of Sidney Smith: Part One', *Revue d'Assyriologie et d'Archéologie Orientale* (hereafter *RA*), (Paris, 1988), Vol. 82, no 2, p. 143–144.

9. Wiggermann, *Protective Spirits*, p. 54.

10. R. Campbell Thompson, *The Epic of Gilgamesh: Text, Transliteration, and Notes*, (Oxford, 1930); J. Gardner and J. Maier, *Gilgamesh*, Translated from the Šin-leqi-unninni version, (New York, 1984); N.K. Sandars, *The Epic of Gilgamesh*, (Penguin, New York, 1987); S. Dalley, *Myths from Mesopotamia: Creation, The Flood, Gilgamesh and Others*, (Oxford and New York, 1989); S. Parpola, *The Standard Babylonian Epic of Gilgamesh*, (State Archives of Assyria Cuneiform Texts 1, Helsinki, 1997); A.R. George, *The Epic of Gilgamesh: The Babylonian Epic Poem and Other Texts in Akkadian and Sumerian*, (London: Penguin Classics, 2000).

11. cf. A. Cavigneaux – F.N.H. al-Rawi, 'Gilgameš et Taureau de Ciel (šul-mè-kam)', *RA*, (Paris, 1993), Vol. 87, no 2, p. 123–124.

12. cf. L. Oppenheim, 'Mesopotamian Mythology II', *Orientalia – Nova Series* (hereafter *ONS*), (Rome, 1948), Vol. 17, p. 40.

13. S.N. Kramer, 'The Dumuzi – Inanna Sacred Marriage Rite: Origin, Development, Character', *Actes de la XVII^e Rencontre Assyriologique Internationale. Université Libre des Bruxelles, 30 juin – 4 juillet 1969*, ed. A. Finet, (Ham-sur-Heure 1970), pp. 135–141; S.N. Kramer, *Le mariage sacré à Sumer et Babylonie*, (Paris, 1983); D. Reisman, 'Iddin–Dagan's Sacred Marriage Hymn', *Journal of Cuneiform Studies* (1973), Vol. 25, no 3, pp. 185–202.

14. cf. E. Lipiński, 'El's Abode. Mythological Traditions Related to Mount Hermon and to the Mountains of Armenia', *Orientalia Lovaniensia Periodica*, (Leuven, 1971), Vol. 2, p. 22.

15. G.R. Castellino, 'Two Šulgi Hymns (BC)', *Studi Semitici*, (Roma, 1972), Vol. 42, p. 38–39, v. 85.

16. T. Jacobsen, *The Harps that once... Sumerian Poetry in Translation*, (New Haven–London, 1987), p. 360; cf. S.N. Kramer, *History Begins at Sumer*, (New York, 1959), p. 229; S.N. Kramer, *The Sumerians, Their History, Culture, and Character*, (Chicago–London, 1963), p. 63.

17. G. Offner, 'Le "gud-an-na" dans l'iconographie', *RA*, (Paris, 1951), Vol. 45, no 3, p. 118.

18. S.N. Kramer – J. Maier, *Myths of Enki, the Crafty God*, (New York – Oxford, 1989), p. 70.

19. J.D. Bing, 'Gilgamesh and Lugalbanda in the Fara Period', *Journal of Ancient Near East Society*, (1977), Vol. 9, p. 2.

20. B.L. van der Waerden, 'Babylonian Astronomy II. The Thirty–Six Stars', *Journal of Near Eastern Studies* (1949), Vol. 8, p. 10; W. Horowitz, *Mesopotamian Cosmic Geography*, (Mesopotamian Civilizations 8, Winona Lake, 1998), p. 157.

21. Wiggermann, *Protective Spirits*, p. 18–19

22. A. Livingstone, *Mystical and Mythological Explanatory Works of Assyrian and Babylonian Scholars*, (Oxford, 1986) [hereafter Livingstone, *Mystical*], p. 117.

23. cf. C.B.F. Walker – S.N. Kramer, 'Cuneiform Tablets in the Collection of Lord Binning', *Iraq*, (London, 1982), Vol. 44, no 1, p. 79–81.

24. cf. Livingstone, *Mystical*, p. 154.

25. Wiggermann, *Protective Spirits*, p. 18–19; Horowitz, *Cosmic Geography*, p. 250.

26. M. Cohen, *The Cultic Calendars of the Ancient Near East*, (Bethesda, 1993) [hereafter Cohen, *Calendars*], p. 431–433.

27. Cohen, *Calendars*, p. 447.

28. Å.W. Sjöberg, 'A Hymn to Inanna and her Self–Praise', *Journal of Cuneiform Studies*, (1988), Vol. 40, no 2, p. 167.

29. E. Douglas Van Buren, 'The Sacred Marriage in Early Times in Mesopotamia', *ONS*, (Rome, 1944), Vol. 13, p. 56; E. Douglas Van Buren, 'Foundation Rites for a New Temple', *ONS*, (Rome, 1952), Vol. 21, p. 303.

30. It is interesting that in the text his name was written without the divine determinative DINGIR, just as the name of the Bull of Heaven in the story about Gilgameš; cf. W.R. Sladek, *Inanna's Descent to the Netherworld*, (PhD dissertation, Baltimore, 1974), p. 114.

31. See H. Zimmern, Zur Herstellung der grossen babylonischen Götterliste An=(ilu)Anum, (Leipzig 1911). The word gú.gal or gu.gal 'great canal-inspector' occurs in frequent texts as the epithet of Iškur/Adad, the god of stormy weather, whose animal attribute was the bull (maybe frequently attributed to this god by the homophony between gu/gú and gu4=gud). In Babylonian texts he was sometimes called "great canal-inspector of heaven and earth" (GÚ.GAL *šamé ú iršitim*), but the relation to Gugalanna is rather unlikely.
32. W.G. Lambert, 'The Theology of Death', *Death in Mesopotamia. XXVI^e Rencontre Assyriologique Internationale*, ed. B. Alster, (Mesopotamia. Copenhagen Studies in Assyriology 8, Copenhagen, 1980), p. 62–63.
33. W. Heimpel, 'A Catalog of Near Eastern Venus Deities', *Syro-Mesopotamian Studies*, (1982), Vol. 4/3, p. 9.
34. B.L. van der Waerden, 'Babylonian Astronomy II'.
35. cf. E.F. Weidner, *Handbuch der Babylonischen Astronomie*, (Leipzig, 1915); Cohen, *Calendars*, p. 314.
36. Oelsner-Horowitz, 'Catalogue', p. 179.
37. cf. Reiner, *Astral Magic*, p. 116–117.
38. cf. the rules of intercalation in *mul*Apin II i 72–ii 7 and later texts; Horowitz, *Cosmic Geography*, p. 152.
39. B. Landsberger, 'Ein astralmythologischer Kommentar aus der Spätzeit babylonischer Gelehrsamkeit', *AfO*, (Horn, 1923), Vol. 1, p. 44–45.
40. Livingstone, *Mystical*, pp. 191–200.
41. cf. E.F. Weidner, 'Eine Beschreibung des Sternanhimms aus Assur', *AfO*, (Horn, 1927), Vol. 4, p. 73.
42. R. Wallenfels, 'Zodiacal Signs among the Seal Impressions from Hellenistic Uruk', *The Tablet and the Scroll. Near Eastern Studies in Honor of William W. Hallo*, ed. M. Cohen – D.C. Snell – D.B. Weisberg, (Bethesda, 1993), p. 283.
43. cf. Wiggermann, *Protective Spirits*, p. 176.
44. H. Frankfort, *Cylinder Seals: A Documentary Essay on the Art and Religion of the Ancient Near East*, (London, 1939), pl. XIXa; cf. P. Amiet, 'L'homme-

- oiseau dans l'art mésopotamien', *ONS*, (Rome 1952), Vol. 21, p. 159; M.–T. Barrelet, 'Taureaux et symbolique solaire', *RA*, (Paris 1954), Vol. 48, no 1, p. 22–23.
45. P. Amiet, 'Le temple ailé', *RA*, (Paris, 1960) [hereafter Amiet, 'Le temple'], Vol. 54, p. 1–10.
46. cf. Amiet, 'Le temple', p. 3.
47. E. Douglas Van Buren, *Symbols of the Gods in Mesopotamian Art*, (Analecta Orientalia 23, Roma 1945), p. 49.
48. Amiet, 'Le temple', p. 8; P. Matthiae, 'Le temple ailé et le taureau', *Reflets des deux fleuves: Volume de mélanges offerts à André Finet*, ed. M. Lebeau – Ph. Talon, (Akkadica suppl. 6, Leuven, 1989), p. 127–128.
49. cf. L. Matouš, *Inscriptions Cunéiformes du Kultépe*, (Prague, 1962), Vol. 2, fig. Ka 83B; E. Williams-Forte, 'The Snake and the Tree in the Iconography and Texts of Syria during the Bronze Age', *Ancient Seals and the Bible*, ed. L. Gorelick – E. Williams-Forte, (Malibu, 1983), p. 41, fig. 11.
50. cf. A. Green, 'Myths in Mesopotamian Art', *Sumerian Gods and Their Representations*, ed. I.L. Finkel – M.J. Geller, (Cuneiform Monographs 7, Groningen, 1997), p. 139; W.G. Lambert, 'Gilgamesh in Literature and Art: the Second and First Millennia', *Monsters and Demons in the Ancient and Medieval Worlds: Papers Presented in Honor of Edith Porada*, ed. A.E. Farkas – P.O. Harper – E.B. Harrison, (Mainz on Rhine, 1987), p. 48–49.
51. P.A. Miglus, '«Der Stein des Grafen von Aberdeen»: Interpretation eines assyrischen Flachbildes', *Beiträge zur altorientalischen Archäologie und Altertumskunde. Festschrift für Barthel Hrouda zum 65. Geburtstag*, ed. P. Calmeyer et al., (Wiesbaden, 1994), p. 189.