

About the Foroughi Cup and about the seven planets in the Ancient World

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Abstract

The Foroughi Cup is an artefact of the 8th century BC of Aramaic cultural context, inside which images of stars and constellations are reproduced. In this study of ours we start from the conclusions reached by Amadasi Guzzo and Castellani in their two works of 2005 and 2006 and we add some further considerations and identifications. We then explain the hypothesis that some cultures of the Ancient World include seven planets, excluding the Moon and the Sun, because Mercury and Venus, always visible only at dawn or at sunset, were perhaps considered four different planets. Finally, we propose the thesis that their evil character depends, as for every new star (novae, supernovae, comets, etc.), on the fact that they alter the synchrony of the cosmos with their variable motion (variable declination heaven bodies).

Keywords: Foroughi Cup, planets, Moon, Sun, Aramaic culture.

The Foroughi Cup

The Foroughi Cup is a bronze artefact (fig. 1), dated to the first half of the 1st millennium BC, containing in its concave interior a representation of the celestial vault and seven very small Aramaic inscriptions, only three of which are quite legible: ŠMŠ = Sun (above the representation of the Sun, in which a lion's head is also engraved); ŠHR = Moon (above the representation of the crescent of the Moon); hypothetically R'Š ŠR' = Head of the Bull (above the bucranium). The other four inscriptions are completely illegible, at least to the naked eye¹.

Referring to the detailed description of the artefact to the two publications mentioned by Amadasi and Castellani, here we describe only our different interpretations and some new hypotheses.

¹ In the absence of proof to the contrary, we believe there is the possibility of reading and translating them by means of a microscope.

The peripheral and symmetrical position of the two *Heavenly Wagons* (the Big and the Little ones) around the celestial north pole, as represented in the cup, already began to occur in the 3rd millennium BC.

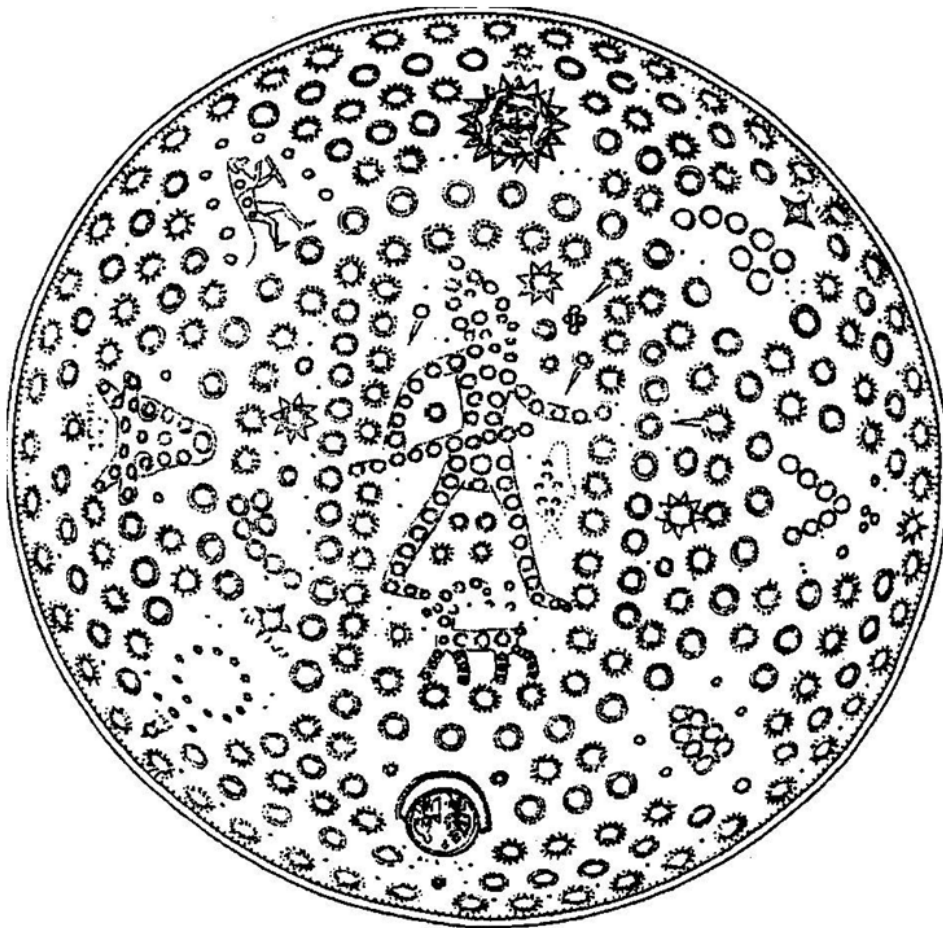


Figure 1. Foroughi Cup's interior (from Amadasi, Castellani, 2005; 2006).

In the same period, and since the 4th millennium BC, the spring equinox, the summer solstice, the autumn equinox and the winter solstice occurred respectively in Taurus, Leo, Scorpio and Aquarius, i.e. in the constellations that Amadasi and Castellani (Amadasi, Castellani, 2005, pp. 16-17; 2006; 5-7) identify with the signs engraved on the right, above, on the left and below the central walking man, with headgear (probably a crown or a mitre) and baton (probably a sceptre). In the same period the north celestial pole was contained in the constellation of the Draco, whose stars ι , α and κ were, in this sequence, "polar stars" in the period 5320 - 660 BC. (Meeus 2009, p. 358). MUL.APIN I, i, 19 identifies α Draconis (Thuban) with *The Hitched Yoke, the Great Anu of Heaven* (Hunger, Pingree, 1989, pp. 24, 137 and passim). The central walking man can therefore coherently be identified:

1) astronomically with the north celestial pole and the star of the constellation of the Draco that marked it at that time;

2) mythologically with An / Anu, the primordial Sumerian god of the sky, who, with Enlil, the Sumerian god of the Earth, and Enki (in Akkadian Ea), the Sumerian god of underground water,

ruled over one of the three celestial paths into which the sky is divided according to MUL.APIN².

Please let us remember that in the later Babylonian era the dragon³ became the symbol of Marduk, god of Babylon and lord of the gods according to Enuma Eliš. In this period the north pole star was κ Draconis.

The goat under the feet of the central walking man can easily be identified with Enzu Gula (the she – goat) that Hunger and Pingree identify with the constellation Lyra (Hunger, Pingree, 1989, p. 138) in MUL.APIN I, i, 24.

The fish to the left of the walking man "could perhaps" be identified, by the form and the number of seven stars that form it, with the modern constellation of Boote, that MUL.APIN I, i, 12 identifies with ŠU.PA = Enlil (Hunger, Pingree, 1989, pp. 21, 137). But this is a pure conjecture of ours.

Similarly for conjecture, the *Egyptian baboon* (Amadasi Guzzo, Castellani, 2005, p. 18; 2006, p. 7) between Taurus and Leo could perhaps represent the modern Gemini constellation, which MUL.APIN I, i, 5 - 6 identifies with Lugalgirra and Meskamtaea – the *big twins*⁴ – and with Alamuš and Nin-EZENxGUD – the *little twins*⁵ – (Hunger, Pingree, 1989, pp. 19, 137).

On the contrary the representation inside the Moon, described in Amadasi Guzzo and Castellani 2006, p. 16, as⁶ <... a man enthroned in front of an altar on which burns an offering ...>, although later defined <... no longer decipherable ...> (Amadasi, Castellani, 2006, pp. 5-6), can perhaps identify with the Sumerian god of the groundwater Enki / Ea who, in the MUL: APIN I, ii, 20, is called *The Great One, Ea; the star of Eridu, Ea*, who is identified with the modern constellation Aquarius (Hunger, Pingree, 1989, pp. 35, 138).

But the real irresolvable problem is the position of the two constellations identified with the PleHyades – between Scorpio and Aquarius – and with the Boreal Crown – between Aquarius and Taurus – (Amadasi, Castellani, 2005, p 17; 2006, p. 7) because the PleHyades are close to the Taurus (of which today they are part) and the Boreal Crown is opposite to it. It is not even possible to identify the crown of eleven stars, represented on the Foroughi Cup, with the constellation of the Southern (or Austral) Crown because it is too far from Taurus, although then clearly visible in the southern sky of Mesopotamia⁷.

Without much conviction it can be noted that the group of the Hyades, forming the snout of Taurus, is defined in the MUL.APIN I, ii, 1 *The Bull of Heaven, the Jaw of the Bull, the Crown of Anu* (Hunger and Pingree 1989, p. 30). It is a little strange, however, that the snout of Taurus is represented twice in the Foroughi Cup: once as a bucranium and once as a crown.

In the MUL.APIN (Hunger, Pingree, 1989, pp. 30, 68) the Pleiades are represented:

² Approximately, the An / Anu path contained the stars of the tropical belt; the path of Enlil those of the temperate boreal belt; the path of Enki / Ea those of the temperate austral belt.

³ For a concise debate about the role of Draco constellation in the mythology of Ancient Egypt and Mesopotamia, please read: (Buscherini, 2018, pp. 5-10).

⁴ Castor and Pollux, i.e. α and β Geminorum.

⁵ ζ (Alzirr) and λ Geminorum.

⁶ English translation of all quoted Italian texts is by Mario Codebò.

⁷ In the 2nd century AD, Ptolemy quote it in his *Almagest* (Toomer, 1998, pp. 397-398).

1) as a separate group, not part of the Taurus: *The Stars, the seven gods, the great gods* (I, i, 44) and immediately preceding the Hyades: *The Bull of Heaven, the Jaw of the Bull, the Crown of Anu* (I, ii, 1);

2) the first of the eighteen constellations that the Moon travels in a sidereal month (I, iv, 33).

However, they have never been between Aquarius and Scorpio, as represented in the Foroughi Cup, nor even to the east of Orion, as represented in the Seleucid tablet of Uruk preserved at the Pergamon Museum (Pettinato, 1998, table XI). It follows that their real position in the sky had to be, in the iconography, somehow subordinated to some other symbolic meaning that escapes us.

More generally, we must conclude that the Foroughi Cup, although partially interpretable, does not evidently represent a “photograph” of the sky of the Mesopotamian ancient age.

The seven planets

Amadasi and Castellani propose, not without doubts, to identify the three stars with eight cusps and the two with four cusps with the five planets <... which, with the Sun and the Moon complete the series of seven planets known to the world ancient ...> (Amadasi, Castellani, 2006, p. 7). But the ancient world does not include generally the Sun and the Moon among the seven planets⁸, that is, among the stars wandering because of variable declination. MUL.APIN (Hunger, Pingree 1989, pp. 70-71, 80, 146), for example, only mentions five:

1) II, i, 1–8: dUTU - Šamas (the Sun); Sagmaġar–^dŠulpaea ^dAMAR.UTU (Jupiter); Dilibat (Venus); Salbatānu (Mars); UDU.IDIM.GU4.UD–ša Ninurta šumšu (Mercury) and UDU.IDIM.SAG.UŠ–Zibanītu–MUL.dUTU (Saturn) <... travel the (same) path the Moon⁹ travels ...> and <... Together six gods who have the same position, who touch the stars of the sky and change their position ...>;

2) II, i, 38–40 <... Jupiter, Venus, Mercury, whose name is Ninurta, Mars, Saturn, [also called] "the Scales" (or) "Star of the Sun". [These are the gods (?) Who] keep changing their position and their glow ...>.

In other cultures, however, the planets are clearly distinguished from the Sun and the Moon.

The cap. VIII of the Pahlavic text *Le decisioni della ragione celeste*¹⁰ (Bausani, 1957, pp. 99, 103–104) writes¹¹: <... Every form and adversity that reach man or the other creatures, come to them from the seven or the twelve. The twelve signs of the Zodiac are, as religion teaches us, twelve generals by Ôhrmazd, while the seven planets are called seven generals by Ahriman. These seven planets do violence to all creatures and deliver them to mortality and to every affliction. And from the seven planets and the twelve signs of the Zodiac depend the fate and the government of the world ...>.

⁸ Πλανήτης, from the Greek verb πλανᾶω = I let to wander; I wander.

⁹ The name of the Moon in MUL.APIN is ^dSin (Hunger, Pingree, 1989, p. 146).

¹⁰ *Menog-i Khrad*. Pahlavi text and its English translation in <http://www.avesta.org/mp/mx.html>.

¹¹ The sentences here quoted of the Italian text *Le decisioni della ragione celeste* were translated in English by Mario Codebò.

For a translation in English directly from the original Pahlavi text, please see <http://www.avesta.org/mp/mx.html>.

In chap. XII further specifies <... And the creator Ôhrmazd, then, gave all the good of this creation to the Sun and the Moon and those twelve zodiacal signs, which in religion are called "the twelve generals", and they accepted it from Ôhrmazd in order to distribute them [all the good of this creation] appropriately and according to merits. Then Ahriman created the seven planets – also called the seven generals of Ahriman – to subtract that goodness to the creation of Ôhrmazd, in aversion to the Sun, the Moon and the twelve signs of the Zodiac. And every good that those stars give to the creation of Ôhrmazd, those planets, as far as they can, take it away from the creation and give it to the magical power of demons, to the lying spirits and to the wicked ...>.

Already in the first half of the first millennium BC the *Libro dei Vigilanti* (*Book of Vigilantes*), the first of the five Jewish apocryphal texts attributed to the patriarch Enoch (Sacchi 2013, pp. 495–496, 498), had twice underlined the perniciousness of the *seven planets*:

1) XVIII, 13–16 <... And I saw a terrible thing: there seven stars like big burning mountains and a spirit that questioned me. And the angel said to me: "This is the place of the end of heaven and earth. It is the prison of the stars of heaven and of the heavenly army. The stars that roll over the fire, and these, are those that have transgressed the Lord's order since before their rise because they have not arrived at the time (established for them). And (the Lord) was angry against them and imprisoned them until the end (absolution?) of their sin (which will fall?) in the year of mystery ...>.

2) XXI, 3–6: <... And there I saw seven stars of the sky tied up, together, like great mountains and like burning fire. Then I said, "For what sin were they bound? And why were they thrown here?" And Uriel, one of the holy angels, the one who was with me and guided me, told me: "O Enoch, why do you ask, you ask, ask and worry? Those are, among the stars, those who transgressed the highest order of God and have been bound here until they make ten thousand centuries, the number (that is) of the days (of the penalty) of their sin" ...>.

From the above quotations it is clear that:

1) Moon and Sun are not considered planets (which they do not even like, on the other, being the latter ones rather point like the fixed stars and the first ones instead disks with a sensible diameter of about $0^{\circ}31'$ for both, albeit with modest variations during the time).

2) But the planets are seven. Excluding from their group Moon and Sun for their disk shape and considering that Uranus is, in certain periods of its orbit, at the limit of visibility to the naked eye when it reaches the magnitude $+5.7^{12}$ while Neptune is never visible to the naked eye because of its magnitude $+7.75$ (Ferreri, 2013, pp. 103, 113), the only possible solution is that Mercury and Venus, which are never visible all night but only for a certain time after sunset or before dawn¹³, four different planets were regarded: two in the morning and two in the evening. With the addition of Mars, Jupiter and Saturn, visible all night long, the seven planets of the ancient world are obtained. There must certainly have been a period, presumably very ancient, in which Mercury and Venus at sunrise and sunset were really considered four different planets and only later people realized that they are the same. In any case, at the date of compilation of MUL.APIN in the first half of the first millennium BC, it was already known, at least in the

¹² The limit of apparent magnitude visible to the naked eye is about $+6$.

¹³ Roughly, Mercury remains visible for about an hour; Venus can also be visible for three to four hours.

Mesopotamian cultural area, that the planets are five: I, i, 38 and I, ii, 13-16 (Hunger, Pingree, 1989, pp. 29, 33-34, 137-138, 146-150).

3) Judaism and Mazdaism include the planets – but not the Sun and the Moon – among the malefic stars. (Bausani, 1957, pp. 99, 103-104; Sacchi, 2013, pp. 495-496, 498). The reason is evidently their autonomous motion¹⁴ among the fixed stars, seen as a violation of the celestial laws (Sacchi 2013, pp. 495-496, 498). However, since this does not happen in the Sumerian – Babylonian polytheism, it is possible that the Jewish and Mazdaic monotheisms have emphasized the demonization of the planets also precisely as Mesopotamian polytheist deities.

Conclusions

In the Foroughi Cup, in addition to the representation of the precessional situation in the 4th and 3rd millennium BC, we can identify with great probability two other constellations, in addition to those already proposed by Amadasi Guzzo and Castellani in their 2005 and 2006 articles:

1) the central walking character, with headgear and baton, as the constellation of the Draco, symbol of both An/Anu and Marduk and location of the north heavenly pole in that time;

2) the goat with Enzu Gula, the *sh* –goat, that is Vega, the star α Lyrae.

Our other interpretations are much less probable; above all, the position of PleHyades and Boreal or Austral Crown is quite different from reality.

The seven planets could only be Mercury and Venus believed like four planets because of their "part – time" night visibility, to which were added Mars, Jupiter and Saturn visible night "full – time". The variability of their declination, unlike the relatively fixed one¹⁵ of all the other stars, constituted a perturbation / violation of the heavenly laws imposed by the unique Hebrew and Mazdean God and therefore made them rebel demons.

If only little more is probably to be said about the seven planets, we believe instead that an accurate investigation of the Sumerian and Babylonian astrological and astronomical texts may lead to further identification in the symbolism of the Foroughi Cup.

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¹⁴ Due to their variable declination.

¹⁵ For several millennia.

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