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Among the otherwise unknown concepts of the traditional Ethiopian astronomy there are two apparently Greek notions, *kékros* and *kéntros*. In fact, none of them is witnessed by the Greek sources. Even the word κέντρον, an important term in Greek astrology, was never used in the available Greek texts, with its technical meaning similar to that of Ethiopic *kéntros*.¹

Otto Neugebauer provided the most complete description of usage of both terms in Ethiopic, but he was unable to propose any etymology. The basic meaning of *kékros* is 1/60 and the basic meaning of *kéntros* is 1/30 of some (different) intervals of time.²

As I have demonstrated elsewhere, the term *kékros* goes back to Akkadian *kukkaru* through a lost Greek intermediary (*κῆκρος). The basic meaning of *kukkaru* is a circle (disc) with sexagesimal partition implied; Ethiopic *kekros* became the name of each one of its 60 parts. Moreover, the Ethiopic term *gize* ‘time’ in technical meaning (‘two hours’) is (*pace* Neugebauer) a part of a terminological system ultimately of Mesopotamian origin corresponding to Akkadian *bēru* (‘double hour’).³

Now I would like to demonstrate that the term *kéntros* is also a part of the same terminological system of Mesopotamian origin accepted in Ethiopia through a lost Greek intermediary. The word itself is not Akkadian and is obviously the Greek word κέντρον (‘horn’, ‘centre’ etc.) with the incorrect masculine ending *-os* instead of the neuter ending *-on*. In Greek, we presently do not know its usage related to the number 30. However, it is *a priori* likely that the word *kéntros*, together with *kékros*, a part of the terminological system of Mesopotamian origin, has some Akkadian prototype too. It is especially likely because the number 30, being one half of 60, is also an important number in the sexagesimal number system.

Indeed, we have in Akkadian several words with the meaning ‘half’ which are used as well as equivalents of Sumerian ^{ba-a}EŠ, i.e. the sign 30: *mišlu*,

¹ NEUGEBAUER 1979: 175.

² Ibid.: 175–177.

³ LOURIÉ 2010: 419–423.

muttatu, *zūzu*, and *bamtu*.⁴ Only one of them, *mišlu*, also has the meaning ‘midpoint, centre’,⁵ that is, the same meaning as Greek κέντρον. In different dialects of Aramaic the same root *mšl* is known with meanings ‘fork’⁶ and ‘awl, punch’,⁷ also close to the basic meaning of the Greek word (‘horn’).

Therefore, in Akkadian *mišlu*, we have a term combining the meanings “30” and “midpoint, centre”, exactly in the same manner as does the Ethiopic avatar of Greek κέντρον. *Mišlu* has the meaning of a unit implying trigesimal partition, which is, in turn, one half of a larger unit implying sexagesimal partition (*kukkaru*). Ethiopic *kéntros* is the name of each one of these 30 parts, in the same manner as Ethiopic *kékros* is the name of each one of the 60 parts of the corresponding unity. The existence of a Greek intermediary in this passage of the notion of *mišlu/kéntros* from Akkadian to Ethiopic is self-evident. Therefore, we have to admit there is one more meaning of the Greek term κέντρον in the Hellenistic period or earlier, although unattested in the texts preserved in Greek.

The source of borrowing of *kéntros* remains obscure. Neugebauer’s hypothesis that this notion is implied in an Aramaic manuscript of the *Astronomical Book* of Enoch from Qumran (4Q211, fr. 1, cols. ii-iii),⁸ supported by Matthias Albani⁹ and Jonathan Ben-Dov¹⁰, has now been proven wrong by Henryk Drawnel.¹¹

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⁴ REINER 1968: 190.

⁵ OPPENHEIM – REINER (eds.) 1977: 126–129.

⁶ SOKOLOFF 1992: 335; ID. 2009: 849.

⁷ PAYNE SMITH 1903: 307.

⁸ NEUGEBAUER 1979: 169.

⁹ ALBANI 1994: 62.

¹⁰ BEN-DOV 2008: 195.

¹¹ DRAWNEL 2011: 413–419.

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Summary

The Ethiopic term *kéntros* “1/30” goes back to Akkadian *mišlu* through a lost meaning of the Greek astronomical term κέντρον.