Hellenistic Astronomy and Astrology in Greco-Roman, Egyptian and Babylonian Texts

The aim of this interdisciplinary panel is to explore Hellenistic astronomy and astrology in Greco-Roman, Egyptian, and Babylonian texts, including literary texts as well as those on stone, papyri, cuneiform tablets, and other objects.

Presenter One will deliver a talk entitled “Revisiting the Miletus Astronomical Inscriptions”, which will discuss the corpus of non-sundial astronomical inscriptions dominated by seven fragments found in the course of the German excavations at Miletus between 1899 and the middle of the 20th century. The most recent and ongoing work (see Lehoux 2020 for bibliography) establishes that the fragments can be assigned to three distinct second-century-BCE inscriptions: two *parapegmata* (predictions of annually recurring stellar and solar phenomena and weather) and a text on cycles for regulating lunisolar calendars. This paper will address two questions: how much can, and should, we reconstruct of these texts from the surviving fragments, and what was the cultural context motivating the erection of such inscriptions?

Presenter Two will deliver a paper entitled “Hipparchus' Commentary on Aratus and Eudoxus: Between Science and Polemics.” This will involve a preliminary analysis of the *Exegesis on the Phaenomena of Aratus and Eudoxus*, the only remaining work of Hipparchus, the most important Hellenistic astronomer, yet one that still lacks a devoted study. In particular, this paper will focus on a peculiar contradiction in this text: 1) On the one hand, Hipparchus' rather precise astronomical knowledge and tools (*e.g.*, coordinates, equinoctial hours, *etc.*) that are on full display in the second part of the work containing Hipparchus' own catalogue of 42 constellations; 2) On the other hand, inaccuracies or real errors (see Bowen & Goldstein 1991) present in the first part, the polemical commentary against Eudoxus and Aratus.

The Third Presenter will give a talk entitled "Astrological Manuals Concerning Women from the Tebtunis Temple Library, Egypt." In it the author will investigate two unpublished Demotic astrological manuals concerning women (*PSI* inv. D 35 + *P. Carlsberg* 684 and *P. Carlsberg* 100), which belong to a corpus of astrological treatises from the Tebtunis Temple Library, Egypt (2nd century CE.). In these, predictions are based on the correspondence between the Moon and the "decans" – a sequence of 36 stars rising at a one-hour interval throughout the year that were first attested in Egypt in the early 2nd millennium BCE and became integrated into the zodiac system sometime between the 2nd century BCE and the 1st century CE. The author will also point out that Hellenistic astrologers from later periods, such as Hephaestion of Thebes and Teucer of Babylon (the latter excerpted from Rhetorius), wrote about decanal astrological practices similar to those in the Women's Astrological Manuals. This connection challenges the previous belief that Greeks had nothing to learn from Egyptians on the topic of astrology.

The Fourth Presenter will give a talk entitled "The Identification of the Square Aspect in Babylonian Astro-medicine: Some Clues from Greco-Roman Sources." The author will present the first identification of the square aspect – an astrological term referring to the square relationship between planets or zodiac signs – in cuneiform texts of the Early Hellenistic period, a notion heretofore traced only as far back as Ptolemy, 90–168 CE, in his *Tetrabiblos* (1:13). This paper will also provide an interpretation of how such an astrological aspect may have served medical needs on the basis of a series of clues derived from Greco-Roman sources. The resulting picture is one of continuity in the application of this (and probably similar) astro-medical ideas, thus providing an historical explanation for their presence in Greco-Roman medicine.

Presenter Five, in a paper entitled "The Inscriptions of the Antikythera Mechanism Revisited," will discuss the inscriptions, including some new reading not yet published,

inscribed on the Antikythera Mechanism (see Allen *et alii*, 2016), the remarkable geared device salvaged from a shipwreck datable to *ca*. 60 BCE that was constructed in the 2nd or 1st century BCE to calculate and display various astronomical, calendrical and athletic time periods. These inscriptions are a substantial addition to the very small corpus of Hellenistic texts that deal with astronomy at a technical level.

Bibliography

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