

SAW Three-Month Workshop:

Mathematical Practices in relation to the Astral Sciences

Abstract

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Rule of three in Late Babylonian mathematical texts: regular / non regular numbers, reciprocals and approximation

Abstract: I present a mathematical tablet probably found in the so-called “House of the *āšipu*” in Uruk, and dated from the Achaemenid period (547-331 BCE). This tablet, now preserved in Baghdad under the number IM 75985, contains 23 problems dealing with the calculation of surfaces. I examine especially the mathematical work on sets of numbers, the way procedures are formulated (use of diagrams, general and specific explanations), the use of coefficients in the rule of three, and the division by non regular numbers.

I try to detect connections with astral sciences through two means: on the one hand the information conveyed by the colophon, on the other hand the network of texts that IM 75985 belongs to. As often stressed in previous publications, the colophon indicates that the owner of the tablet is Šamaš-iddin, a scholar who owned many other tablets linked to the profession of *āšipu*. Šamaš-iddin owned also 6 mathematical tablets and some tablets dealing with astral sciences (9 contain astrological texts, and 3 astronomical texts). Some of the mathematical tablets contain compilations which include a section on gods, stars, or shadow scheme. However, the very content of the mathematical problems in IM 75985 shows little connection with astral sciences.

In conclusion, I suggest (with some caution) that the mathematical texts from the old “house of the *āšipu*” do not look like technical tools for astral sciences. They seem to reflect the fact that the *āšipu* were involved in land management, and, as already noted in previous works, that they knew some elements of the ancient mathematical traditions inherited from the Old Babylonian period quite well.