

SAW Seminar: History of Science, History of Text

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Mémorisation des mathématiques dans les écoles de l'ancienne Babylone/ Memorizing mathematics in Old-Babylonian schools/Memorizing mathematics in Old-Babylonian schools

Abstract: Mathematical texts from Mesopotamia are the oldest traces of mathematical activities that came down to us. One can hardly imagine that texts written more than four thousand years ago have preserved, in a way that would be intelligible to us, the trace of the context of orality in which they were probably produced. However, several reasons should make us revise this pessimistic.

One reason lies in the nature of the sources on which historians of Ancient Near East, among them historians of mathematics, work. They are archaeological sources, that is to say, documents produced by the hands of actors which we study the practices and knowledge. This situation contrasts with the study of other mathematical writings, like those of ancient Greece, which have been transmitted by a long scholarly tradition, and on which we only know late witnesses. The material aspects of these archaeological sources inform us about the practices of all kinds that accompanied the act of writing.

A second reason lies in the existence, among the finds of archaeologists who excavated the major sites in Iraq, Syria and Iran, of a large number of so-called "school tablets", namely, the writings produced by young scribes during the first stages of their training. These writings reflect oral communication between students and masters.

A third reason results from the context in which the school tablets were written. This is a sensitive period in the intellectual history of Mesopotamia, where oral tradition is facing the emergence of the practice of writing, particularly in the transmission of knowledge. What are the marks in mathematics texts, of this upheaval? What were the consequences of the emergence of long-range communications, in space and in time? Answering these questions may help to explain why mathematics texts appear heavily in our sources at the beginning of the second millennium BCE, while many indications show that mathematical practices appeared much earlier.

In this contribution, I will examine a set of mathematical school tablets from the site of Nippur, in central Mesopotamia, dating from the early second millennium BCE. I will focus to clues which allow understanding the environment in which the school tablets were written by young scribes. These indices include the physical aspects of the school tablets, the layout of the text, or mistakes. Smallest details may contribute to uncover essential elements of this environment, such as the multi-lingualism, the memorization processes, the learning by recitation, the use of memorized tables, or the computation practices with a device.