

Narrating Knowledge: The Late Medieval and Early Modern Reckoning Book Between Narration, Fiction, and Didactics

Growing trade and expanding mercantile activity in the 15th century created a demand for mathematical education and swift, practical problem-solving skills. This was quickly met by a surge in the publication of vernacular reckoning books, all serving the purpose of teaching arithmetical knowledge to aspiring merchants and traders. Although this type of pragmatic literature seems to be primarily concerned with numbers and, therefore, mostly non-narrative, these books still tell stories on many different levels. On the one hand, they demonstrate the newfound importance of mathematics in organizing a mercantile society on the brink of modernity. On the other hand, they transmit mathematical knowledge by presenting it in the form of short stories that tell us about much more than ‘just’ about arithmetic operations. This thesis therefore asks the following questions: How do narrative forms and mathematical contents correlate in reckoning books? What narrative potential do these books contain, and what functions do narrative elements fulfil in a seemingly non-literary text form?

The dissertation aims to answer these questions by adopting three exemplary approaches: Firstly, it considers the overarching structures of reckoning books, how they convey and ‘narrate’ knowledge, and how their compositions and contents change with the opportunities brought about by the advent of print. Particular attention is given to how reckoning books also serve to transmit additional forms of knowledge through paratextual framing and its meta-discursive reflection on the text type itself. A second viewpoint examines the small narratives taking place within the singular reckoning example. Each of these narratives provides the necessary stage to convey the mathematical problem while fulfilling multifaceted functions in which the classic functionalizations of a mathematical ‘prodesse’ and a literary ‘delectare’ blur and intertwine. They offer entertainment, arouse emotions, engage the memory, and tie the example back into a shared horizon of knowledge and experience, thus expanding the communicative reach to the intended audience. Drawing on the works of Jan-Dirk Müller (2007) and Albrecht Koschorke (2012), this study analyzes the processes involved in condensing and unfolding narratives within the formulaic, reductive storytelling of reckoning examples. A third perspective aims to connect the narratological and the cultural-historical elements of early modern reckoning books. In order to respond to the needs of their intended audience, arithmetic books refer to the cultural, socio-economic, and social conditions of the time in which they were written (Orbán / Wiesinger 2024), thereby becoming a significant cultural and historical source.

The dissertation uses methods of historical narratology and narrative theory to analyze a corpus of selected manuscripts and printed arithmetic books from the 15th and 16th centuries. This ultimately allows us to understand the central role of storytelling in reckoning books and how narrative elements reflect a world shaped by mathematics.

Works Cited

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