

ABSTRACT

A primary objective of this bachelor thesis is to characterize mathematical symbolism (the use of substitute signs of usually fixed meaning for a description of objects and processes) in arithmetic books from the 16th century written in the Czech language with a primary focus on the foundations of arithmetic. Firstly, I categorize the period notation based on its form and purpose by analysing the historical sources. Then, I compare the symbolism described in the individual arithmetic books and connect the discovered differences in time. The analysis focuses on an arithmetic book by George Goerl from approximately the second third of the monitored period. Furthermore, I elaborate on an earlier arithmetic book by Andreas Klatovský and a different one by Benes Optát. In general, I arrange the arithmetic books chronologically.

Another aim of this paper is to evaluate the above-mentioned arithmetic books from a formal point of view. Therefore, I touch on the contents of each of them, ordering, and literary and pictorial paratexts. I am also interested in particular exercises and examples as sources of knowledge of the everydayness in the age of the authors. I evaluate the suitability of their way of notation and problem solving in some exercises in comparison with today's approach. Throughout the whole work, the mathematical and historical aspects are being interconnected to ensure coherence, sufficient information value, and interdisciplinarity. This thesis hopes to contribute through concrete examples to the little-explored topic of early modern history Czech arithmetic books while observing the level of the then mathematical and cultural thinking.

KEYWORDS

arithmetic book; symbolism; arithmetic; 16th century; mathematical notation; Lands of the Crown of the Kingdom of Bohemia; George Goerl; Andreas Klatovský; Benes Optát