

SAW Conference on Writing histories of ancient mathematics – Reflecting on past practices and opening the future, 18th-21st centuries

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organized by Karine Chemla, Agathe Keller, Christine Proust and the SAW group
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Making sense of the diversity of mathematics

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The reception of Alexander Wylie's Jottings on the science of the Chinese. Arithmetic in Europe in the 19th century

Abstract – The publication in 1852 of Alexander Wylie's *Jottings on the science of the Chinese. Arithmetic* marked a shift in the European knowledge and understanding about the history of mathematics in China. This long article was reprinted several times in the subsequent decades. However, as Ulrich Libbrecht established it in his *Chinese Mathematics in the Thirteenth Century : The Shu-shu Chiu-Chang of Ch'in Chiu-Shao* (MIT Press, 1973), it was rather through its “translations” and reviews that the new knowledge Wylie presented on the topic was received in Europe in the second half of the 19th century.

Indeed, Wylie's *Jottings* was “translated” into German by K. L. Biernatzki in 1856, under the title 'Die Arithmetik der Chinesen' (*Journal für die reine und angewandte Mathematik*). Moreover, it was the latter version, and not Wylie's original text, that was in turn “translated” into French by Olry Terquem (1782-1862), and published in two parts (respectively, 1862 and 1863) in the context of the *Nouvelles annales de mathématiques, journal des candidats aux écoles polytechnique et normale*. It was also Biernatzki's article that was the object of Joseph Bertrand's (1822-1900) two-part review published in the *Journal des Savants* in 1869. In addition, several

German publications, by Moritz Cantor (1858, 1880), Hermann Hankel (1874), and Ludwig Matthiessen (the latter published in fact a set of articles on related issues between 1874 and 1881), testify to a reception through Biernatzki's article. Ulrich Libbrecht has already shown the impact of the mistakes committed by Biernatzki in his translation on the European appreciation and interpretation of the mathematics from ancient China.

In our article, we would like to examine in greater detail the contexts in which the original publication, and its various receptions were produced, and we will in particular shed light on these authors' motivations for being interested in this topic. Our purpose is to explore how these contexts and motivations can help account for the ways in which Wylie's text was transformed by each of these actors, and for how in the end it was received. One of our main foci will be on the different representations of the history of mathematics in China that were shaped in these accounts.