

On the *Suan Shu Shu*: A Preliminary Study

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Abstract

This article is to explore, if only preliminarily, the *Suan Shu Shu* (算數書) of no later than 186 B.C., the oldest mathematical text written on bamboo was ever discovered in China so far. By comparison with the *Jiu Zhang Suan Shu* (九章算術·Nine Chapters on Mathematical Art), the *Suan Shu Shu* is inferior in at least the following aspects, namely, format of exposition (著述體例), criterion of knowledge classification (知識分類判準), as well as presentation of algorithms (算法表徵). Nevertheless, it is in the light of the text, the *Jiu Zhang Suan Shu*, presumably made its first appearance in the same period, might be observed in a more appropriate context. For example, the authors of the *Jiu Zhang Suan Shu* provided no reasoning in its algorithms -- an aspect pointing to their sole interest in practical calculation. On the other hand, the authors of the *Suan Shu Shu* offered syntactical connectives like "Gu" (故) and "Yin Er" (因而) in order to make a conclusive argument. Indeed, the representation of algorithms given in the *Suan Shu Shu* may well reflect just how early former Han mathematicians were influenced by the pre-Qin period thinkers (like the Mohists and sophists) in terms of their interests in argumentation. On the contrary, due to that the writing of the *Jiu Zhang Suan Shu* might have primarily concerned with practical use of mathematical knowledge, one cannot resist to conclude that the classic of the history of Chinese mathematics was basically devoted to Confucian concern with state bureaucratic management.

Key words: algorithm *Jiu Zhang Suan Shu* reasoning *Suan Shu Shu*,

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