1018-01-48 Joseph W. Dauben* (jdauben@att.net), Depaartment of History, Herbert H. Lehman College, CUNY, 250 Bedford Park Blvd. West, Bronx, NY 10468. Suan Shu Shu (A Book on Numbers and Computations): Problems in Collating, Interpreting and Translating the Most Ancient Yet-Known Chinese Mathematical Text.

The Suan Shu Shu (Book of Numbers and Computations) is the earliest yet known work devoted specifically to mathematics from ancient China (circa 186 BCE). As such, it has stirred considerable interest among historians of Chinese mathematics. While some sections of this work are straightforward and have been understood with little disagreement, others have been open to diverse and often divergent interpretations. In some cases, related methods serve as clues to help interpret the meaning of given problems, as is the case for the three problems devoted to Fu Tan (Carrying Charcoal), Lu Tang (Bamboo Ladles), and Yu Shi (Feathering Arrows). But for another pair of seemingly related problems, Yi Yuan Cai Fang (Turning Circular Wood into a Square) and Yi Fang Cai Yuan (Turning Square Wood into a Circle), there has been little agreement about whether these are inverse or quite different problems, and virtually everyone who has approached these two problems has understood them differently. This presentation considers various collations and explanations offered for these especially challenging parts of the Suan Shu Shu, and what they reveal about early Chinese mathematics in general. (Received February 17, 2006)