Joseph W. Dauben* (jdauben@att.net), Research Center for Humanities and Social Sciences, National Chiao-Tung University, Hsinchu, 30010, Taiwan. Early Chinese Mathematics: its Development from pre-Qin to Wei. Preliminary report.

Recently a collection of some 200 bamboo strips constituting a set of mathematical problems dating to the early third century BCE have been collated and studied at the Yuelu Academy at Hunan University, in Hunan Province, PRC. In conjunction with other similar bamboo slips unearthed from Qin tombs in Hubei Province at Shuihudi and Zhangjiashan, a much clearer picture is beginning to emerge of early Chinese mathematics and its relation to the better-known classic text, the Jiu Zhang Suan Shu (Nine Chapters on the Art of Mathematics), with its important commentary of 263 CE by Liu Hui of the Kingdom of Wei. By surveying the development of mathematics in China over this period of more than 500 years, both content and context will be considered, including the types of problems these mathematical works included, the extent to which various arguments and proofs were offered to establish the correctness of results, and how administrative, economic, military and legal matters, among others, are reflected in and may have affected the mathematics contained in these early works. (Received September 18, 2010)