

19th Biennial Conference of the European Association of Chinese Studies (EACS)
Paris, 4-8 September 2012

Special panel organised by the SAW Project

Meanings and uses of measuring units in pre-modern China

Chaired by

Karine Chemla (SPHERE UMR 7219, CNRS & U. Paris Diderot, ERC Advanced Research Grant SAW) &

Zhu Yiwen (PhD Institute for the History of Natural Sciences, CAS, China & Post-doc, ERC Advanced Research grant SAW, SPHERE UMR 7219)

Karine Chemla 林力娜

(SPHERE UMR 7219, CNRS & U. Paris Diderot, ERC Advanced Research Grant SAW)

email address: chemla@univ-paris-diderot.fr

Approaching the scientific work at play in the analysis of standard measuring vessel in ancient China (3rd—7th centuries)

Abstract - The presentation aims at highlighting and analyzing aspects of the scientific work that Chinese scholars active between the Wei and the Tang dynasties carried out in order to analyze systems of measuring units and material standards designed in the past to embody these measuring units. It is hoped that this investigation can help us approach the work involved in the actual design of systems of measuring units and the making of material standards associated to them.

To deal with this topic, the presentation will focus on measuring units for capacity and standard vessels attached to them. It will also mainly concentrate on the measurement of grains. In a first part, I shall suggest that mathematical documents provide in this respect a precious source of evidence and I shall offer arguments establishing authorship for some of the passages that they contain and that are contested. The deployment of these arguments will require that we rely on the “Monograph on pitch pipes and the calendar 律曆志” of the *History of the Jin dynasty* 晉書 and the *History of the Sui dynasty* 隋書. In a second part, I shall discuss which hypotheses these connections between the official histories and mathematical sources suggest with respect to the status and use of these mathematical books. These hypotheses in turn help us understand how we can use the evidence provided by the latter documents, in particular to investigate the history of the design of systems of measuring units and the material standards embodying them.