

Seminar SAW - Exploring 19th and 20th centuries historiographies of mathematics in the ancient world, 2015-2016

March 18th, 2016

Historiography of calculation and computation in the ancient world

HIROSE Sho (SAW ERC project, SPHERE Université Paris Diderot, France)

Observation versus Computation in Indian Astronomy

Abstract - It is often debated whether the tradition of astronomy in India was purely computational or whether it involved observation. The aim of this presentation is to explore the history of such an opposition.

I shall first focus on the contrasting opinions of two historians in the 19th century: Henry Thomas Colebrooke assumed that observation was important for the Indian astronomers as much as it was for the Greeks and Arabs, while Ebenezer Burgess raises an objection to this view. Burgess chooses, from a number of other texts, the "*Sūryasiddhānta*" as a representative Indian astronomical treatise to translate and publish, and remarks that it shows how observation was crude and unimportant in Indian astronomy. While Burgess remarked that his evaluation of observation had yet to be reexamined due to lack of evidence, his ideas were followed by Otto Neugebauer and David Pingree, influencing the modern view on Indian astronomy.