

Seminar SAW

Rethinking Practice and Culture in the History of Science

organized by Koen Vermeir and the SAW project's group

Université Paris Diderot, Condorcet Building - room 366A - 9:30 am to 5:30 pm

<http://sawerc.hypotheses.org/seminars/practices>

Programme February 3rd, 2016 - Session 2

Readers and Speakers

Guillaume Lachenal, *Texts reading*

Claude-Olivier Doron, *Texts reading*

Matthieu Husson, *Mathematical Practices/ Mathematical cultures: perspectives from late medieval Europe*

François Lê, *Geometrical equations: a "cultural system"*

Guillaume Lachenal, Texts reading of

◆ Fa-ti Fan, "The Global Turn in the History of Science", *East Asian Science, Technology and Society* (2012) 6(2) : 249-258

◆ Romain Bertrand, "Politiques du moment colonial. Historicités indigènes et rapports vernaculaires au politique en « situation coloniale »", *Questions de Recherche / Research in Question* N°26 - Octobre 2008

◆ Introduction de Kapil Raj, *Relocating Modern Science*.

Claude-Olivier Doron, Texts reading of

◆ Hans-Joerg Rheinberger, Chapter "Historicity, Narration, and Reflection", in *Towards a History of Epistemic Things*, Stanford University Press, 1997, pp.176-186

◆ "Cultures of experimentation", in Karine Chemla and Evelyn Fox Keller, *Cultures without culturalism in scientific practice*, Duke University Press, 2016

Matthieu Husson (CNRS –SYRTE, Observatoire de Paris, SAW project)
Mathematical Practices/ Mathematical cultures: perspectives from late medieval Europe

Abstract: During the last 2 years in the context of the SAW project I have explored through different cases studies the notions of mathematical practices and mathematical culture as methodological tools. These case studies include:

- a work on practice with coins in different contexts, in collaboration with Marc Bompaigne (EPHE) ;
- a work on practice with numbers in astronomical and related mathematical treatises;
- a work on practice with diagrams and instruments, in collaboration with Sho Hirose (Saw project), Agathe Keller (SAW project) and Clemency Montelle (University of Canterbury, New Zealand);
- a work on practice with numerical tables -in collaboration with Richard Kremer (Dartmouth College, USA).

On the basis of these research works I will focus on two specific questions: How is a set of practices framed and described as a mathematical culture? How to describe different relations and links between mathematical cultures? In this discussion I will pay attention to the type of corpus on which these case studies were built as well as to the homogeneity/heterogeneity of the elements and the diversity of practices found in these corpus.

François Lê (Laboratoire de mathématiques de Lens - Université d'Artois)
Geometrical equations: a "cultural system"

Abstract : Geometrical equations are mathematical objects which played a crucial role in the mechanisms of encounters between group theory and geometry in the second half of the 19th century. A striking fact about these equations is that they were no well-defined objects, although they were shared by a group of famous mathematicians (including Alfred Clebsch, Camille Jordan, Felix Klein, and Max Noether) who deployed very precise ways of doing to study them. The aim of my talk is to describe the special organization of knowledge associated to geometrical equations at the light of the definition of "culture" due to the sociologist Guy Rocher. More specifically, I will show how this definition actually led me to characterize that organization of knowledge as a "cultural system." To bring things into perspective, I will also suggest that this cultural system may be interpreted as the product of an acculturation process between parts of an algebraic culture and a geometric culture of the 19th century.