

Call for applications for a full-time doctoral scholarship

Ancient mathematics in secondary schools: issues, current practices and new perspectives

European Research Council (ERC) project

“Mathematical Sciences in the Ancient World (SAW):
New Theoretical Approaches to the Sources and Socio-Political Issues of the Present Day”

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The European Research Council Project “Mathematical Sciences in the Ancient World (SAW)” is calling for applications for a full-time doctoral scholarship, rewarding the most relevant topic with respect to its objectives.

General aims of the project. The SAW project is dedicated to sources that have come down to us from the ancient world and attest to mathematical activities, specifically, though not exclusively, to sources produced in **Mesopotamia**, **China**, and the **Indian sub-continent**. The ambition of SAW is to develop **new theoretical approaches to the history of ancient mathematics** in order to highlight a motley of practices within what at the present day too often are presented as homogeneous wholes, as shown by the frequent use of terms such as “Mesopotamian mathematics”, “Chinese mathematics”, and “Indian mathematics”. To this end, SAW intends to concentrate systematically on the sources produced in relation to two core sectors of activity in the ancient world: the practice of the astral sciences and the administrations in charge of managerial and financial matters. One of the goals of the project is to shape methods that ground our approach to ancient sources in the critical awareness that a history of mathematical practices as well as a material and social history of the archives, libraries, and collections of sources provide. SAW also intends to carry out a reflection on the history of historiography of mathematics. The main focus of SAW in that direction will be on the key general operations which are at play in the making of the historiography of ancient sciences, such as the shaping of critical editions.

Description of the topic attached to the present scholarship. The primary aim of this doctoral scholarship will be to do research on “Ancient mathematics in secondary schools: issues, current practices and new perspectives”. By analyzing ancient documents from various parts of the world, the SAW project has already identified and described different cultures of computation and quantification, that is, different ways of working with numbers, quantities, measuring units or operations. The diversity of these cultures contrasts with the uniformity of the concepts shaped for teaching mathematics, leading to univocal, sometimes dogmatic, approaches. The goal of this scholarship is to study the impact of the diversity of the basic arithmetical notions shown by the SAW project on the teaching of these concepts or related concepts. The successful candidate will analyze the current practices of the history of mathematics in secondary (or elementary) classrooms in France or in other countries. Relying on research developed within the framework of the SAW project, he or she will elaborate new methods of such education. One important result of this research will be the production

of resources for teaching. One objective of this approach, then, is to show to the students not only the diversity of mathematics, but also its international character. Applicants are expected to mention specific sources on the basis of which they intend to begin their research and the way in which they intend to deal with the issues specific to the SAW project.

Applicants must hold an MA degree or equivalent in history, history of science, mathematics education or mathematics. Relevant knowledge in mathematics is required. It is strongly recommended that applicants possess relevant knowledge in mathematics education. If they don't, they should be able to demonstrate their ability to acquire such knowledge rather quickly. They must be fluent in English. Researchers of all nationalities are welcome to apply.

Applications should include the following:

- a full CV (including a list of publications where appropriate);
- an outline (2 pages maximum) of the research project showing clearly its relevance for SAW objectives;
- one or more recent samples of academic writings (publications, master thesis);
- a copy of the most recent diploma;
- transcripts of the master degree;
- name and email address of two referees who could assess the application.

The **deadline** for applications is: **September 16, 2013** (for the position to be taken up no later than **November 1, 2013**). Short-listed candidates will be informed at the beginning of October 2013 and phone or Skype interviews are expected to take place during the first week of October 2013.

The scholarship is granted for one year. Pending positive evaluation, the doctoral scholarship is renewable for two additional years. The monthly stipend amounts to about 1400 euros for the doctoral scholarship (amount to be updated at the contract signing). It includes social security benefits and retirement provisions. The recipient, under the supervision of Christine Proust, will have to obtain a degree from the academic institution the SAW project is affiliated to. He/she will need to complete all requirements of this institution graduate school.

Applications should be sent to the SAW Project Director **Karine Chemla** by **email only**: chemla@univ-paris-diderot.fr. It is recommended to request an email acknowledgement of receipt.

Information on the SAW project is available online at <http://www.sphere.univ-paris-diderot.fr/?-ERC-Project-SAW-&lang=en>.

For any questions on the scholarship please contact Christine Proust (christine.proust@univ-paris-diderot.fr).