

SAW Conference on Writing histories of ancient mathematics – Reflecting on past practices and opening the future, 18th-21st centuries

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organized by Karine Chemla, Agathe Keller, Christine Proust and the SAW group
Université Paris Diderot, Condorcet Building room 366A Klimt- 9:30 am to 5:30 pm

Uses of histories of mathematics

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Old Truths for Tomorrow: Cold War Computing, Disciplinary Myth-making, and the Histories of Ancient Mathematics in the Soviet Union

Abstract – Volume no. 122 of Springer Lecture Notes in Computer Science appeared in 1981, in the established form of post-proceedings, that is to say, reporting the latest original research results described at a scientific meeting. However, its rather conventional title, *Algorithms in Modern Mathematics and Computer Science*, does not speak to the most puzzling facts about the meeting and the resulting publication. The pair of editors and meeting organizers behind the publication were none other than Donald Knuth and Andrei Ershov, the latter being a Soviet scientist and the former his American counterpart who were collaborating despite the outset of the war in Afghanistan. The meeting itself was held in the fall of 1979 in the Uzbek city of Urgench. What is more, history held a prominent place at this scientific gathering. The 80-pages long contribution that opens the proceedings is devoted to al-Kwarizmi, a medieval mathematician whose name was at the origin of the word of “algorithm.” In the foreword, the editors partially solved the puzzling choice of the meeting’s location by calling their gathering a “pilgrimage.” They explained their usage of history as a unique feature that distinguished the gathering from what they called “ordinary” symposiums: “We believe that the desert setting and the atmosphere of history ... should help inspire us to thoughts of a more penetrating, far-sighted, and philosophical nature.” Thus,

thanks to such extraordinary choices, Urgench was transformed into a symbolic location, tying the deepness of ancient past to scientific insight, and, as a consequence, connecting Central Asian history with the future development of computer science. Hidden beneath the generic, grey cover of the Springer volume, these discursive strategies and usages of the history of ancient mathematics demand a systematic analysis to inform the connections between the making of communities and the political stakes of mathematical universalism. In this paper, I study the Urgench gathering based on the materials preserved in the Ershov electronic archive and aim to account for the memory construction and high stakes associated with the historicization of scientific legitimacy. First, I contextualize the conference's origins in the Soviet tradition for teaching the history of mathematics. Next, I elucidate how the narratives about the ancient history of mathematics were mobilized for the creation of a new Cold War discipline, computer science. Finally, I focus on the afterlife of the conference materials in 1983, when the Soviet Union was celebrating the 1200th anniversary of al-Kwarizmi to interrogate the links between international disciplinary myth-making, Soviet scientific popularization, and emerging nationalist discourses.