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- In our society, we communicate by using images: television, computer, posters and so on.
- Mathematics was born and developed in a social context. Many people have used it.
- Interpret the attached picture, i.e. look at the people in the picture and describe what you think they are doing. Examine the context and the details; try to use your mathematical knowledge.

What makes this task interesting is the fact that it focuses on a particular aspect of the history of mathematics, i.e. the charm and the informative value of the illustrations in antique historical sources. The central idea in the experiment is to use historical iconography for stimulating students' reflection on mathematical activity and its relation with social life. The report of the experiment was presented at a conference, see [7]. When I read this report it was natural for me to link the author's inspiration with something that the late John Fauvel liked a lot, e.g. the iconography in ancient mathematical books. The enjoyment in this aspect of history emerges in the ICMI Study book. It is moving for me to see in a teacher's work a tangible and spontaneous sign of Fauvel's cultural heritage.

REFERENCES

- [1] BARWELL, M. E. The advisability of including some instruction in the school course on the history of mathematics. *The Mathematical Gazette* 7 (1913), 72–79.
- [2] BROWN, S. I. Towards humanistic mathematics education. In: A. J. BISHOP et al. (eds), *International Handbook of Mathematics Education*, 1289–1321. Kluwer, Dordrecht–Boston–London, 1996.
- [3] BURN, B. Book Review: History in Mathematics Education – The ICMI Study. *Educational Studies in Mathematics* 52 (2003), 211–214.
- [4] C.I.E.M. Discussion document for the tenth ICMI Study: “The role of the history of mathematics in the teaching and learning of mathematics”. *L'Enseignement Math.* (2) 43 (1997), 199–203.
- [5] —— Discussion document for the sixteenth ICMI Study: “Challenging mathematics in and beyond the classroom”. *L'Enseignement Math.* (2) 51 (2005), 165–176.
- [6] DEMATTÈ, A. *Fare matematica con i documenti storici*. IPRASE del Trentino, Trento, to appear.
- [7] —— Not logically connected steps of reasoning: interpretation of historical mathematical pictures. In: *Proceedings of CIEAEM* 57, to appear.
- [8] FAUVEL, J. (ed.) *History in the Mathematics Classroom*. The Mathematical Association, Leicester, 1990.
- [9] FAUVEL, J. and J. VAN MAANEN (eds). *History in Mathematics Education: The ICMI Study*. (New ICMI Study Series, vol. 6.) Kluwer, Dordrecht–Boston–London, 2000.

- [10] FURINGHETTI, F. The long tradition of history in mathematics teaching: an old Italian case. In V. KATZ (ed.), *Using History to Teach Mathematics: An International Perspective* (MAA Notes no. 51), 49–58. Math. Assoc. of America, 2000.
- [11] FURINGHETTI, F. and L. RADFORD. Historical conceptual developments and the teaching of mathematics: rethinking phylogenesis and ontogenesis. In: L. ENGLISH (ed.) and M. BARTOLINI BUSSI, G. JONES, R. LESH & D. TIROSH (associated eds), *Handbook of International Research in Mathematics Education*, 631–654. L. Erlbaum Assoc., Mahwah (N.J.), 2002.
- [12] KLEIN, F. The arithmetizing of mathematics. An address delivered at the public meeting of the Royal Academy of Sciences of Göttingen, November 2, 1895 (I. Maddison, trans.). *Bulletin of the Amer. Math. Soc. (II)* 2 (1896), 241–249.
- [13] POINCARÉ, H. La logique et l'intuition dans la science mathématique et dans l'enseignement. *L'Enseignement Math.* 1 (1899), 157–162.
- [14] SCHUBRING, G. Ontogeny and Phylogeny – Categories for Cognitive Development. In: F. FURINGHETTI, S. KAIJSER, C. TZANAKIS and A. VRETBALAD (eds), *Proceedings of the HPM Satellite Meeting and Fourth European Summer University* (second edition), to appear.

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