

Editorial

For the learning of mathematics has long promoted wide-ranging discussion of the use of history of mathematics in mathematics learning. From the very first article [Tahta, 1980], historically informed contributions have played a major role in these pages. This issue is, however, the first to be devoted to this theme throughout. It consists of papers arising from contributions made to the international conference on history in mathematics education HIMED 90 held in Leicester in April 1990, organised by the British Society for the History of Mathematics.

After an introductory paper sketching the history and range of views about using history in the mathematics classroom, this issue consists largely of discussions of the classroom experiences of twelve teachers, from seven countries. Finally, there is a resource guide for readers interested in exploring further the historical background to mathematics.

We are taking the opportunity of this special issue to index also the previous articles on this or related themes that have appeared in *For the learning of mathematics*. Including the nine in this issue, thirty-six articles have appeared over the past decade with some bearing on history in relation to mathematics education. These articles fall broadly into four categories: historically-informed discussion of mathematics education, discussion of using history in mathematics education, case-studies in that use, and articles on the history of mathematics education. The thirty-six articles are indexed below. Of course, this section and classification is fuzzy at the edges: other articles in FLM have made historical references, and several of these articles have aspects of more than one category. But it is hoped that, modulo this fuzziness, the index will be helpful to readers seeking to pursue studies and practices in this area further.

Historically-related articles in *For the learning of mathematics* 1980-1991

Indexed by category—

Historically-informed discussion of mathematics and mathematics education:—

Tahta, 1980; Agassi, 1980; Davis, 1982; Box, 1984; Blake and Verhille, 1985; Tahta, 1986; Steiner, 1988; Graf and Hodgson, 1990; Hefendehl-Hebeker, 1991.

Discussion of the use of history of mathematics in mathematics education:—

Freudenthal, 1981; Dhombres, 1981; Morley, 1982; Pimm, 1982; D'Ambrosio, 1985; Fauvel, 1991; Russ et al, 1991; Zaslavsky, 1991.

Examples of history of mathematics for use with mathematics students (including trainee or in-service teachers):—

Arcavi, Bruckheimer and Ben-Zvi, 1982; Stowasser, 1982; Stowasser and Breiteig, 1984; Kleiner, 1986; Katz, 1986; Arcavi, Bruckheimer and Ben-Zvi, 1987; Gardner, 1991; Ofir, 1991; Führer, 1991; Thomaidis, 1991; van Maanen, 1991.

History of mathematics education:—

Radatz, 1980; Howson, 1984; Kroll, 1985; Schubring, 1987; Fauvel, 1988; Fauvel, 1989; Arcavi and Bruckheimer, 1989

Indexed by author

- Agassi, Joseph [1980] On mathematics education: the Lakatosian revolution. 1.1, 27-31
- Arcavi, Abraham, and Maxim Bruckheimer [1989] The didactical De Morgan: a selection of Augustus De Morgan's thoughts on teaching and learning mathematics. 9.1, 34-39
- Arcavi, Abraham, Maxim Bruckheimer and Ruth Ben-Zvi [1987] History of mathematics for teachers: the case of irrational numbers. 7.2, 18-23
- Arcavi, Abraham, Maxim Bruckheimer, and Ruth Ben-Zvi [1982] Maybe a mathematics teacher can profit from the study of the history of mathematics. 3.1, 30-37
- Blake, Rick and Charles Verhille [1985] The story of 0. 5.3, 35-47
- Box, H.J.M. [1984] Mathematics and its social context; a dialogue in the staff room, with historical episodes. 4.3, 2-9
- D'Ambrosio, Ubiratan [1985] Ethnomathematics and its place in the history and pedagogy of mathematics. 5.1, 44-48
- Davis, Philip J [1982] Toward a philosophy of computation. 3.1, 2-5
- Dhombres, Jean [1981] Pédagogie et utilisation de l'histoire: des tensions contradictoires. 2.2, 10-5
- Fauvel, John [1988] Cartesian and Euclidean rhetoric. 8.1, 25-29
- Fauvel, John [1989] Platonic rhetoric in distance learning: how Robert Record taught the home learner. 9.1, 2-6
- Fauvel, John [1991] Using history in mathematics education. 11.2, 3-6
- Freudenthal, Hans [1981] Should a mathematics teacher know something about the history of mathematics? 2.1, 30-33
- Führer, Lutz [1991] Historical stories in the mathematics classroom. 11.2, 24-31
- Gardner, J Helen [1991] "How fast does the wind travel?": history in the primary mathematics classroom. 11.2, 17-20
- Graf, Klaus-Dieter and Bernard R. Hodgson [1990] Popularizing geometrical concepts: the case of the kaleidoscope. 10.3, 42-50
- Hefendehl-Hebeker, Lisa [1991] Negative numbers: obstacles in their evolution from intuitive to intellectual constructs. 11.1, 26-32
- Howson, Geoffrey [1984] The questions remain the same: only the solutions change. 4.2, 14-17
- Katz, Victor J. [1986] Using history in teaching mathematics. 6.3, 13-19
- Kleiner, Israel [1986] Famous problems in mathematics: an outline of a course. 6.1, 31-38
- Kroll, Diana [1985] Evidence from The mathematics teacher (1908-1920) on women and mathematics. 5.2, 7-10
- Maanen, Jan van [1991] L'Hôpital's weight problem. 11.2, 44-47
- Morley, Arthur [1982] Should a mathematics teacher know something about the history of mathematics? 2.3, 46
- Ofir, Ron [1991] Historical happenings in the mathematics classroom. 11.2, 21-23
- Pimm, David [1982] Why the history and philosophy of mathematics should not be rated X. 3.1, 12-15
- Radetz, Hendrik [1980] Students' errors in the mathematical learning process: a survey. 1.1, 16-20
- Rogers, Leo [1991] Resources for using history in the mathematics classroom. 11.2, 48-52
- Russ, Steve, Peter Ransom, Patricia Perkins, Evelyn Barbin, Abraham Arcavi, Gary Brown, David Fowler [1991] The experience of history in mathematics education. 11.2, 7-16
- Schubring, Gert [1987] On the methodology of analysing historical textbooks: Lacroix as textbook author. 7.3, 41-51
- Steiner, Hans-Georg [1988] Two kinds of "elements" and the dialectic between synthetic-deductive and analytic-genetic approaches in mathematics. 8.3, 7-15
- Stowasser, Roland [1982] A textbook chapter from an idea of Pascal. 3.2, 25-30
- Stowasser, Roland, and Trygve Breiteig [1984] An idea from Jakob Bernoulli for the teaching of algebra: a challenge for the interested pupil. 4.3, 30-39
- Tahta, Dick [1980] About geometry. 1.1, 2-9
- Tahta, Dick [1986] In Calypso's arms. 6.1, 17-23
- Thomaidis, Yannis [1991] Historical digressions in Greek geometry lessons. 11.2, 37-43
- Zaslavsky, Claudia [1991] World cultures in the mathematics class. 11.2, 32-36

JOHN FAUVEL