HPM

International Study Group on the Relations Between
HISTORY and PEDAGOGY of MATHEMATICS
An Affiliate of the International Commission on
Mathematical Instruction

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Report by HPM: The International Study Group on the Relations between the History and Pedagogy of Mathematics

HPM Activities 2000-2004

Together with the PME group (International Study Group for the Psychology of Mathematics Education); the International Study Group on the Relations between the History and Pedagogy of Mathematics (HPM) is the oldest Study Group of ICMI, both being affiliated since 1976. HPM promotes the interaction of people from three different worlds — mathematics, history and pedagogy. The history of mathematics is considered as a means that may help to improve mathematics teaching and learning and to enrich the image of mathematics. The full history of HPM until 2000 appears in a paper published in the Proceedings of the

ICME-10 Satellite meeting of HPM, to be held in Uppsala (authors: Florence Fasanelli and John Fauvel, 2004).

HPM2004
UPPSALA

The interest for the use of history in mathematics education has remote roots in the work of famous historians such as Florian Cajori, David Eugene Smith, Gino Loria and Hieronymus Georg Zeuthen. In recent times the ideas outlined in a theoretical way by those important historians of the past had interesting applications in the classroom. Teaching experiments are discussed in specific studies and doctoral dissertations are written all over the world. All that assists in making the links of history and mathematics education more rigorous and fruitful.

At the end of my four years (2000-2004) as the chairperson of HPM, I browse through my memories and the *HPM Newsletter* issues to pick up information on the activities of HPM and, more generally, on relevant events related to the links between history and pedagogy in mathematics.

The period opened with the re-birth of the *HPM Newsletter*, after a period of lethargy. The first new issue was in November 2000. It is recorded as No. 44, but indeed, it should have been No. 45. To remedy the mistake the following issue had the number 46. This is the reason why in the collection of *HPM Newsletter* there is no edition numbered 45. With this little mistake we provided future historians with some puzzling material! Peter Ransom was appointed as editor. I express my hearty thanks to him. I cannot think of my period in the chair without having Peter at my

side. The *HPM Newsletter* is issued three times per year (in spring, summer and autumn) and it is available through the HPM website (http://www.mathedu-jp.org/hpm/index.htm). A paper version is sent to those who requested it by local distributors in the following regions: Argentina, Australia, Austria, Belgium and Netherlands, Canada, China, Eastern Europe, France, Germany, Greece and the Balkans, Iran, Israel, Italy, Japan, Malaysia, Mexico, Morocco, New Zealand, Other East Asia, Scandinavia, South America, South Asia, Southern Africa, Spain and Portugal, Taiwan, Teheran, Turkey, U.K. and the U.S.A. I am very grateful for all the help and support received by the distributors and fully appreciate the time they give.

In issue No. 44 there was the report by Jan van Maanen (pp. 2-4) on the various activities linked to history carried out at ICME-9 (Tokyo-Makuhari, 2000). Among them the presentation of the book *History in mathematics education: the ICMI Study*, edited by John Fauvel and Jan Van Maanen, published in 2000 by Kluwer Academic Publishers. The book has been reviewed by John Fauvel himself in the *Newsletter* (No. 44, pp. 7-9) and in the journal *Educational Studies in Mathematics* by Bob Burn (2003, v. 52, pp. 211-214). In the same year the book *Using history to teach mathematics: An international perspective*, edited by Victor Katz, was published by the Mathematical Association of America. This book contains papers presented in 1996 at ICME-8 in Sevilla and in the following HPM Satellite meeting held in Braga.

In the same year (November 2000) the National Council of Teachers of Mathematics (NCTM) published a focus issue of their journal *Mathematics Teacher* dedicated to mathematics history. The journal featured articles and activities very usable by secondary teachers (see *Newsletter* No. 46, 2001, pp. 4-5). An analogous special issue has been published by The Mathematical Association in Britain in their journal *Mathematics in School* (v. 37, n. 1, 2003) —

see *Newsletter* No. 53, 2003, pp. 4-6. These publications are evidence of the interest of educators for the use of history in mathematics teaching. They offer teachers materials for actual work in the classroom.

In some conferences on mathematics education there have been special sessions of HPM, or sessions in which history and pedagogy interacted. For example, during the 12th ICMI Study Conference on *The future of the teaching and learning of algebra* (December 2001, Melbourne), one of the working groups of the conference was devoted to the history of algebra and its relation with mathematics education (see the report in the *Newsletter* No. 49, p. 4). In the 7th Maghrebian symposium on the History of Arabic mathematics (Marrakech, 30 May - 2 June 2002), there was a panel and presentations dealing with connections between the history and pedagogy of mathematics (see reports in the *Newsletter* No. 50, p. 10 and No. 51, pp. 8-11). The bicentenary of Abel's birth was celebrated in the Abel-Fauvel Conference at Kristiansand (Norway, 12-15 June 2002, report in *Newsletter* No. 50, p. 11-12). This conference may be considered a continuation of the "Learn from the masters" conference held in the same place in 1988; as happened in the first conference, a book of proceedings was also published in 2002 (O.B. Bekken & R. Mosvold, editors, *Study the masters: The Abel-Fauvel Conference Proceedings*, NCM, Göteborg). In the second International Conference on the Teaching of Mathematics (ICTM2), organised by the University of Crete, there were contributions related to history and a panel titled "On the role of the history of mathematics in mathematics education" (*Newsletter* No. 51, p. 8 and No. 52, pp. 2-3). In the same year in Riga (Latvia) a conference on mathematical creativity and education for gifted students hosted talks dealing with history. In the 7th Symposium of SEIEM (the Spanish Society of research in mathematics education) held in Granada in September 2003, a plenary talk was devoted to the links of education with the history of mathematics and a working group dealt with

this subject. In browsing through the announcements in the *Newsletter* we may note that the French network of IREM (the Institutes for Research on Mathematical Education) has been very active in organising meetings centred on history, teaching mathematics and epistemology. Also South America was very active in the field. One of the last meetings related to HPM has been the Inter-American HPM2003 — HPM Satellite Conference of the XI Inter-American Conference on Mathematics Education-2003 (14-17 July 2003 in Blumenau, Brazil). A short report is in the *HPM Newsletter* No.54 (November 2003).

The Americas Section of HPM has its annual meeting and program each year in April in conjunction with the annual meeting of the National Council of Teachers of Mathematics. HPM-Americas is an affiliate of NCTM. Information about HPM-Americas can be found on their website http://www.hpm-americas. During 2000-2004, Bob Stein, Cal State-San Bernardino has been president of HPM-Americas and Karen Dee Michalowicz has been the secretary and web site coordinator (she has sent me the outline here reported about the activities of the Americas Section of HPM). In addition to a formal annual meeting, there are many informal meetings held each year throughout North and South America, many of which occur during joint meeting of the Mathematics Association of America and of the American Mathematics Society held each year in January. There are also numerous sub-groups supporting the historical and pedagogical interests of HPM that hold seminars or meetings during the year. Information about these meetings is usually made available via the HM list-serve, the HPM-Americas web-site and announcements in MAA's *Focus*, among other professional journals.

In recent years the HPM America's annual meetings have taken place in Las Vegas (2002), San Antonio (2003) and Philadelphia (2004). The program for 2002 included Ubi D'Ambrosio speaking on "History of mathematics in Brazil: The colonial Era",

Victor Katz on "The Use of history in teaching algebra", Jim Fulmer on "Preparing teachers to use historical modules" and Shawnee McMurran on "A remarkable Victorian". The HPM program in 2003 included Edie Mendez, a student of Wilbur Knorr, speaking on the primary source research she continues do on Hypatia; Anthony Piccalino, a Colonial America researcher, speaking about arithmetic in the North American English colonies; and Frank Swetz, one the experts on Chinese mathematics, speaking on Magic Squares. Victor Katz discussed the Historical Module project that he and Karen Dee Michalowicz had co-directed. Karen Dee Michalowicz ended the meeting with a presentation of her collection of rare books, including a Clavius Euclid from the late 1500. The HPM program for 2004 included Dave Zitarelli speaking on "The Bicentennial of American Mathematics Journals", and Paul Pasles speaking on "The Most Magically Magical Dr. Franklin". Victor Katz discussed the new on-line mathematics journal that he and Frank Swetz edit. The next HPM annual meeting will be held in Anaheim, California, in April 2005.

Finally, I point out that in ICME-10 program the International Study Group HPM will be involved in many activities (*Newsletter* No. 55, pp. 2-4). Topic Study Group 17 is entitled "The role of the history of mathematics in mathematics education" (team chairs: Man-Keung Siu and Costas Tzanakis). Three slots (four hours altogether) are dedicated to HPM as an Affiliated Study Group of ICMI. A poster round table session is labelled "History of mathematics and mathematics education". However in summer 2004 the main event for the HPM Study Group is the Satellite meeting to ICME-10 held in Uppsala (Sweden), a city where memories of glorious scientists of the past (Carl von Linné for one) are emerging everywhere.

This selection of events in which the subject "history of mathematics and pedagogy" has a significant role shows how widespread is the interest for this topic all over the world. But there are other events showing that the HPM group is healthy. Wan-Sheng Horng wrote a report on the *HPM Tongxun* (*HPM Newsletter*) published in Taiwan since 1998 and of all the activities carried out in the Mathematics Teacher Community of Taiwan (*Newletter* No. 50, pp. 5-9). The last HPM Satellite meeting (ICME-9, 2000) took place in Taipei and that was also the venue for the *Asia-Pacific HPM: History, culture and mathematics education in the new technology era* conference (May 24-28, 2004; announcement in the *Newsletter* No. 55, pp. 12-14).

In the various conferences not only experienced researchers but also young people presented contributions. In the *Newsletter* there is information about doctoral dissertations on history and pedagogy: Kate Parker (U.K.) on "Humanising mathematics" (No. 52, p. 6) and Barbara von Amerom (The Netherlands) on "Reinvention of early algebra" (No. 50, pp. 12-13). In issue No. 50 a new section of the *Newsletter* was launched called "Research in progress". This is addressed particularly to young researchers.

Events currently scheduled suggest that the HPM group will fruitfully continue its activity in the future. For instance it is planned to have special issues of journals based on selected papers from ICME-10 and from the satellite meeting at Uppsala. Also, scholars in the field of history and pedagogy of mathematics will have a specific place to publish their works: as mentioned above, Victor Katz and Frank Swetz have launched an on-line history of mathematics journal (*Newsletter* No. 53, p. 3 and web address http://convergence.mathdl.org), called *Convergence: Where Mathematics, History and Teaching Interact*. In the *Newsletter* No. 51 (pp. 3-5) there is an article concerning this new journal conceived by John Fauvel and Jan van Maanen about the connections of history and mathematics education. In order

to assess the feasibility of this project, articles for submission to the *BSHM Newsletter* (now *Bulletin*) are invited.

Other projects for the future of the HPM group concern the development of the contacts established with the Fédération Internationale des Géomètres — F.I.G. This society of surveyors, whose seat is in Brussels, is more than one hundred years old. Members of the society are interested in the history of surveying, which has contacts with the history of mathematics. An exhibition of old books which concern both mathematics and surveying has been organised on the occasion of the 125th anniversary of the Union des Géomètres-Experts immobiliers de Bruxelles in the Chapelle Nassau of the Bibliothèque Royale de Belgique (22 November-21 December 2001). The catalogue of the exhibition, entitled *Des agrimensores romains aux arpenteurs du XVIème siècle*, is a wonderful document which evidences the cultural links between the world of surveyors and that of mathematicians. This book was reviewed in the *Newsletter* No. 54 (pp. 11-12). For the future it is planned to organise joint events of the HPM group and of F.I.G., possibly on the occasion of the conference of the society of surveyors to be held in Cairo in 2005.

Thinking of the past four years it is very sad for me and for the members of our community to remember that in 2001 we lost John Fauvel, former chair of HPM (1992-1996), and one of the souls of the group. I do not wish to add more to the messages that a number of scholars in history and in education, teachers and friends have sent. The *Newsletter* No. 47 is dedicated to John and contains some of many accolades received. The *ICMI* Bulletin No. 50 (June 2001) also contains an *In Memoriam* tribute to John. With John I started the organisation of the HPM2004 Satellite meeting of Uppsala and continued alone, trying to work in the spirit that John would have liked. I remember also Neil Bibby, who passed away in 2002 (*Newsletter* No. 51). He was one of the organisers, with John Fauvel, of the first

BSHM conference HIMED90 which took place in 1990 at University of Leicester (U.K.). For me and many other members of the HPM group, this meeting was the beginning of our personal story with history.

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In memoriam:
Miguel de Guzmán (1936-2004)

Miguel de Guzmán passed away on April 14, 2004. He was a distinguished mathematician, a very active academician, an educator that left an indelible mark on all his students, and he enthusiastically popularized mathematics. Miguel de Guzmán was one of the rare mathematicians that could encompass all the big challenges of contemporary mathematics research, teaching and its relations to society. He was tireless developing theoretical thoughts, producing numerous inspiring examples, giving and writing exemplary lessons and undertaking multiple initiatives.


As a mathematician he tried to convince all other mathematicians to get involved in the troubled waters of mathematics education. In 1996 he gave a talk at the 8th ICME titled "On the role of the mathematician in Mathematics Education" where, acknowledging that "mathematical education is a rather complex task", he claimed that all mathematicians should "collaborate together in order to face its many difficult problems with efficiency" promoting "a global vision of mathematics in human culture". In this respect, mathematicians should devote their effort to several projects:

- pre and in-service preparation of teachers
- research in mathematics education
- mathematics education
- educational treatment of young talent in mathematics

His efforts of popularising mathematics can be seen in several books he wrote, for example in "Aventuras Matematicas" that was translated into several languages, namely French and English with the titles "Aventures Mathématiques" and "The Countingbury Tales: Fun with Mathematics", respectively.

THE COUNTINGBURY TALES

FUN WITH MATHEMATICS

Miguel de Guzmán
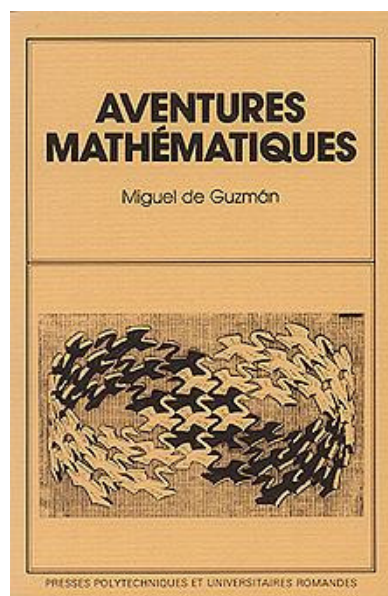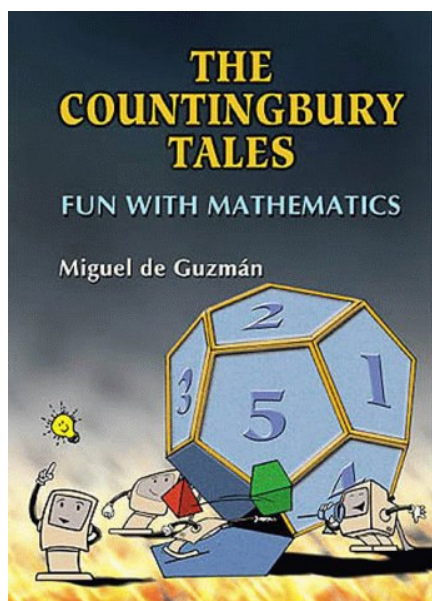
This book "Aventuras Matemáticas" tries to convince the reader that he should try to solve mathematics problems with a certain heuristics similar to the one of Polya. These ideas are developed in another book "Para pensar mejor" ("To think better"). In the text "Juegos Matemáticos en la Enseñanza" he proposes another heuristics more adequate to the use of mathematical games in teaching.

Miguel de Guzmán Ozámiz was born in Cartagena, Spain, in 1936, from a family of navy officers; in these difficult times he had almost no chance to meet his father, because he was executed with other 157 navy officers, when Miguel de Guzmán had only 6 months. As his father and his two brothers studied engineering, he started to study engineering; he then studied humanities and classical arts in Spain and went to Munich, Germany where in 1961 he finished his studies in Philosophy. He then decided to switch to Mathematics, which he studied at the University of Madrid till 1965. He then went to the University of Chicago where in 1968 he obtained a Ph.D. in Mathematics under the supervision of Alberto Calderón. Miguel de Guzmán was a Professor of Mathematical Analysis at the Universidad Complutense de Madrid; his area of research was Classical Analysis and Harmonic Analysis. He was named a member of the Spanish Royal Academy of Mathematical Physical and Natural Sciences in 1982 and served as President of The International Commission for Mathematical Instruction (ICMI) from 1991 to 1998.

His internet page, built immediately after his department opened its server, contains numerous texts (mostly in Spanish, a few in English) and will be maintained by his university, as a tribute to its author. It can be seen at

http://ochoa.mat.ucm.es/~guzman/

One of the main ideas of Miguel de Guzmán was that mathematics teaching should give a particular attention to problem solving, and so the emphasis would be placed on the thought processes, so that the student would manipulate the mathematical objects, activating his mental capacity. He was very critical of textbooks because they just contain exercises and not real problems (unlike the textbooks he co-authored that were magnificent). Miguel de Guzmán claimed that problem solving is an important element in the creation of the passion for discovery and thought it as an important element in trying to change the attitude of students towards mathematics.

Miguel de Guzmán thinks we should have a "broad vision" of what mathematics is and reject the "somewhat empty routine" that mathematics so many times seems to be in our classrooms. According to Miguel de Guzmán, mathematics is a way to understand the harmony of the universe, a science looking for truth, a tool that other sciences use, a creative activity with a beauty that, quoting Plato, can be seen only with the eyes of the soul. These facets of mathematics are profoundly human and should make mathematics into one of the great axis of our educational system, if teachers are well prepared for that task; but Miguel de Guzmán thinks that we are failing in the preparation of mathematics teachers at all levels. In the text "Innovative trends in mathematics education" he presents aspects that should be considered to change the situation, like the exploration of applications, games, etc, and he also discusses the impact of calculators and computers, of new areas like discrete mathematics, etc. One of the aspects he discusses there is the role of history of mathematics. He considers that history of mathematics is a strong help to:
give an idea of how peculiar is the surge of mathematical ideas
give a time stamp and a place to big ideas and problems accompanied by their motivation
point to the open problems in each time, its evolution, how they stand now
point to the historical connexions of mathematics with other sciences, whose interaction traditionally produced a good number of important ideas

In the text "The Origin and Evolution of Mathematical Theories", a talk given in 1992 at the 7th ICME, he discusses in detail similar ideas analysing what the history of mathematics in general and of a particular subject can offer the student.

Miguel de Guzmán wrote numerous texts and I think the best way to honour his memory is to recommend the lecture of these texts, textbooks for secondary teaching or university, texts popularizing mathematics at various levels (like "Mirar y ver" that contains nine texts about intuitive geometry), texts about mathematics education (including books like "El rincon de la pizarra" an essay about visualization in analysis), etc. Like this we will know better the contributions of a great man that influenced, and will continue to influence significantly, mathematics education. I must confess that his work had a great influence on me, a very important one considering I have been coordinating the secondary mathematics syllabus in Portugal for the last 10 years.

I end with a quote that Miguel de Guzmán presents, in one of his papers, of his Ph.D. advisor, Alberto Calderón, because it sums up very well the labour of Miguel de Guzmán:

"We are all capable of inventing and discovering in greater or lesser extent, and this active and creative aspect of our mind must be cultivated at every moment. Moreover, I would say, it gives us the only way to look for a profound knowledge of any discipline. Our mind is naturally active and doesn't stand passiveness or inaction without incurring in a great danger of atrophy."

<div align="right">Jaime Carvalho e Silva
Coimbra, Portugal</div>

Editorial

This is my final edition as editor of the *HPM Newsletter*. It has been a pleasure and a privilege to work with Fulvia and everybody who has contributed in so many ways (including my school who has borne the cost of photocopying and postage). I hope to meet many of you at ICME-10 and or HPM2004 and wish my successor as much enjoyment and support as I have had.

<div align="right">Peter Ransom
Romsey, UK</div>

ICME 10

TSG 29: The History of the Teaching and the Learning of Mathematics

A new feature in the programme of ICME 10 (4-11 July 2004) is the introduction of TSGs, i.e. of Topic Study Groups. One of these TSGs is TSG 29, on The History of the Teaching and the Learning of Mathematics. This TSG 29 is a considerable innovation since it appears for the first time on an ICME agenda and since it is, moreover, badly or at best marginally represented in international literature such as research handbooks on mathematics education.

TSG 29 is prepared by the following team: Gert Schubring (Germany) and Yasuhiro Sekiguchi (Japan) as chairpersons and Hélène Gispert (France), Hans Christian Hansen (Denmark), and Herbert Khuzwayo (South Africa).

Since there is not yet an established communication net for this topic, it is one of the main tasks to constitute such a communication. The topic has to face a particular challenge: it can be described as a dichotomy between national history and international perspectives. Maybe it can also be understood as the dialectic between the particular and the general. Actually, most of the research pursued is concentrated on the history within a given nation or a given culture. This is quite natural as the history of mathematics teaching and learning constitutes a part of the educational history in that country or culture. In order not to have a collection of separate, isolated histories without interconnections the aim is hence to establish relations between the different histories and to reveal what is "general" in them and what constitutes, say, cultural, social or political particularities. Moreover, the team has identified – already as a result of international cooperation – recent publications on the topic and was thus able to elaborate the first international bibliography on the history of teaching and learning mathematics. Evaluating the bibliography, three major thematic dimensions were identified:

1. modernisations of mathematical curricula (via transmission and/or social-cultural reform movements)
2. aspects of teaching practice (textbooks, methods; teacher training)
3. cultural, social and political functions of mathematics instruction (e.g. practical/vocational versus formal/academic function).

The field for TSG 29 is extraordinarily broad, given the range of topics, the number of states and cultures through history, and the different levels of school systems. The focus therefore is of institutionalised forms of teaching and learning – in types of schools equivalent to primary and secondary levels. Higher education is included as far as it concerns mathematics teacher education.

Within this structure, there will be oral presentations by Shinya Yamamoto (Japan); Nikos Kastanis (together with Iason Kastanis) (Greece); Kristin Bjarnadóttir (Iceland); Eileen Donoghue (USA); Circe Mary Silva da Silva (Brazil); Harm J. Smid (The Netherlands); Mahdi Abdeljaouad (Tunisia), Livia Giacardi (Italy); Alexander Karp (Russia).
Moreover, there will be posters and papers for distribution.

The bibliography and further information is available on the website of ICME 10:
http://www.icme-10.dk/
(→ Programme; → TSG; → TSG 29).

Full papers for publishing on the website prior to the conference will be due May 15.

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Gert Schubring
Bielefeld

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Topic Study Group 17: The Role of the History of Mathematics in Mathematics Education

Team Chairs: Man-Keung Siu, Department of Mathematics, University of Hong Kong, Hong Kong (mathsiu@hkucc.hku.hk) and Constantinos Tzanakis, Department of Education, University of Crete (tzanakis@edc.uoc.gr)

Team Members: Abdellah El Idrissi, Department of Mathematics, Ecole NormaleSupérieure de Marrakech, Morocco (a_elidrissi@hotmail.com); Sten Kaijser, Department of Mathematics, Uppsala University, Sweden (sten@math.uu.se); Luis Radford, School of Education, Laurentian University, Canada (lradford@laurentian.ca)

Aim: The aim of TSG17 is to provide a forum for participants to share their teaching ideas and classroom experience in connection with the history of mathematics, in the spirit of the 10th ICMI study mentioned above and to learn about work that has been done since then.

Focus: Roughly put there are three aspects, which are closely related and yet are separate issues:

(1) Doing research in the history of mathematics,
(2) Teaching the history of mathematics,
(3) Integrating the history of mathematics in the teaching of mathematics.

Given the limited time available, TSG 17 focuses on aspect (3), welcomes contribution on (2), but does not touch upon (1) systematically.

Aspect (3) can further be refined as three more aspects, again inter-related:

To integrate the history of mathematics in the teaching of mathematics, aiming at

(3a) Teaching and/or learning a certain subject area in mathematics,

(3b) Providing general motivation and enjoyment in studying mathematics,

(3c) Developing a deeper awareness, both of mathematics itself and its social and cultural context.

History of mathematics is not to be regarded as a panacea to all pedagogical issues in mathematics education. History of mathematics, besides its intrinsic value, is just one of the many means which may help (some) students to learn better and/or some teachers to teach better. Likewise, mathematics is important but is not the sole subject worth studying. It is the harmony of mathematics with other intellectual and cultural pursuits that makes the subject meaningful and worthwhile. In this wider context history of mathematics has a yet more important role to play in providing a fuller education of the community.

www-conference.slu.se/hpm/index.html

HPM 2004

Miss it – miss out!
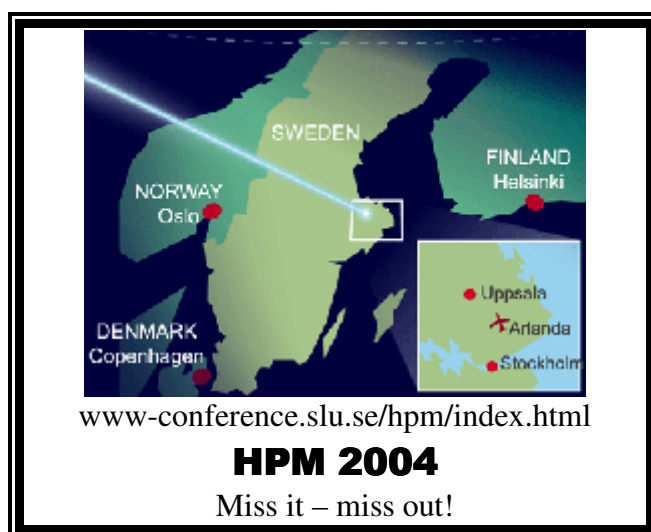
ASG (Affiliated Study Group meeting)

Three timeslots are allocated for the study group HPM under the label ASG (Affiliated Study Group meeting). Here is the program of the meetings, as published in the ICME 10 program. Please note that the favourable allocation at the end of the working day and just before the happy hours will foster relaxed discussions and exchange of opinions.

HPM (the International Study Group on the Relations between History and Pedagogy of Mathematics affiliated to ICMI) Chairperson Fulvia Furinghetti <furinghe@dima.unige.it>

The aims of HPM are well illustrated by recent publications, such as: J. Fauvel & J. Van Maanen (editors), *History in mathematics education: the ICMI Study*, Kluwer, Dordrecht / Boston / London. HPM Newsletter, regularly appearing three times per year inform about the activities carried out all around the world, see http://www.mathedu-jp.org/hpm/index.htm. To provide further information we take from the presentation of the forthcoming HPM 2004 (ICME 10 Satellite Meeting in Uppsala, Sweden, http://www-conference.slu.se/hpm/index.html) the following motto (by Sten Kaijser): "The spirit of HPM is much more than the use of history in the teaching of mathematics
• it is the conception of mathematics as a living science, a science with a long history, a vivid present and an as yet unforeseen future
• together with the conviction that this conception of mathematics should not only be the core of the teaching of mathematics, but it should also be the image of mathematics spread to the outside world.
Through our common history we see that
• mathematics is the result of contributions from many different cultures
• the teaching of mathematics has developed through the ages
• that mathematics has been in constant dialogue with other sciences

• that mathematics has been a constant force of scientific, technical, artistic and social development."
The three timeslots scheduled in the program of ICME 10 will be a good occasion to gather the ideas in preparation of Uppsala meeting. The two poles of the ASG meeting in Copenhagen will the past (a balance of what happened) and the future (projects and perspectives). In the following we give the program of the ASG meeting. Contact person: Fulvia Furinghetti <furinghe@dima.unige.it>.

1. First section
Monday, 5 July 2004, 17:30-18:30

Florence Fasanelli (Associate Program Director AAAS, USA) will give a talk about the history of HPM.
Chair: Fulvia Furinghetti, University of Genova, Italy.

2. Second session
Wednesday, 7 July 2004, 17:30-18:30

Ubiratan d'Ambrosio (Brazil) will give a talk on the "Diffusion and popularization of science and mathematics".
Chair: Costas Tzanakis, University of Crete, Greece.

3. Third session
Saturday, 10 July 2004, 16:30-18:30

Jan van Maanen (University of Groningen, The Netherlands) will give a talk centred on a survey of what happened after the publication of the ICMI Study, and on the project of a new journal.
Victor Katz (University of the District of Columbia in Washington DC, USA) will report about what happened in the past four years and will survey the future of HPM (plans, works in progress, discussion of new proposals of activities). In this session the group as a whole should be involved in making more suggestions and - hopefully - volunteering to try to make some of the suggestions a reality.
Chair: Man-Keung Siu, University of Hong Kong, China - Hong Kong.

Work in progress

We encourage young researchers in fields related to HPM to send us a brief description of their work in progress and a brief description of their dissertation.

Funda Gonulates (Bogazici University, Istanbul <oprukcuf@boun.edu.tr>) reports that her dissertation is now complete and that she is willing to share results and comments.

Prospective teachers views on the integration of history of mathematics in mathematics courses

This was a study carried out for four weeks with prospective mathematics teachers in Bogazici University, Istanbul. It was a small study. For four weeks 14 mathematics teaching students studied materials from the history of mathematics. Data was collected at the start and at the end of the study. After the four week experience of the possible uses of history in the classroom students' attitudes and views were investigated.

<div align="right">

Funda Gonulates
Istanbul, Turkey

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Reviews

In you would like to be involved in reviewing books or magazines for this section, please send your contact details and area(s) of interest to the editor who will forward books or magazines for review as and when they become available.

The views expressed in this section are the views of the reviewers and may not necessarily be those of the HPM Advisory Board.

If you wish for a book to be reviewed, please send it to the editor who will arrange for it to be reviewed.

Have you read these?

A History of School Mathematics, eds. George M. A. Stanic and Jeremy Kilpatrick, 2 vols, NCTM 2003.

Its 38 chapters deal mainly with the history of mathematics education as an academic discipline, there are, however, also chapters on mathematics teaching, e.g. analysis of 19th century textbooks and of 20th century (by K. M. Michalowicz and E.F. Donoghue), too, and of mathematics teaching in the second half of the 20th century – thus being a follow-up study to the 1970 NCTM Yearbook. The two volumes are no general history as the title suggests but a history of the USA and Canada. Unfortunately, despite its 1800 pages, there is no index.

<div align="right">

Gert Schubring
Bielefeld, Germany

</div>

Instruments scientifiques à travers l'histoire, Elisabeth Herbert (ed.), Ellipses, Paris, 495 pages.

Ce livre raconte la vie des instruments de navigation (arbalestrilles, sextants) mais aussi des cartes, portulans, sphères armillaires, globes célestes et terrestres, ou encore la vie d'instruments de cosmographie (astrolabes, volvelles), de la mesure du temps et en particulier de cadrans solaires. A travers les livres de "géométrie pratique", on y parle d'unités de mesure, d'instruments de topographie et de tracé, en laissant place au calcul de proportions. Toute une variété de disciplines ouvrent la porte à la trigonométrie. Enfin, quelques machines (machine de Pascal, machine Enigma, analyseur harmonique) et systèmes articulés vous livrent leurs mystères.

Les mathématiques ne sont pas simplement un domaine de connaissances théoriques abstraites; elles se concrétisent en un grand nombre d'instruments scientifiques qui font partie du patrimoine. Mais le patrimoine scientifique à la différence du patrimoine technique ou artistique est encore peu connu, peu analysé. L'ambition de ce livre est de

faire découvrir, en s'appuyant sur le patrimoine, la richesse de ces instruments qui attestent de la multiplicité des champs d'application des mathématiques à travers l'histoire. Nous avons la certitude qu'en retrouvant les démarches simples que permettaient les instruments anciens présentés dans nos musées, démarches décrites dans les livres conservés dans nos bibliothèques, les mathématiques gagnent en lisibilité. Les instruments font sortir les mathématiques de leur tour d'ivoire.

Ces instruments scientifiques répondent à la quête du sens; on peut les voir, les construire, les utiliser et donc s'en emparer. Souvent ils sont à la fois mystérieux et beaux; pont entre l'art et la science. Les facteurs d'instruments ont souvent été des artistes géniaux. Les instruments scientifiques nous invitent à découvrir quelques-uns des coups de génie de l'humanité.

Le livre contient 25 chapitres regroupés autour de 8 thèmes : 1. La navigation ; 2. La cosmographie ; 3. La mesure du temps ; 4. La topographie ; 5. Les instruments de tracés ; 6. Les systèmes mécaniques ; 7. Trigonométrie ; 8. Les unités de mesure.

<div align="right">Evelyne Barbin
Nantes, France</div>

www-conference.slu.se/hpm/index.html

HPM 2004

Uppsala

Have you been here?

The British Society for the History of Mathematics web site at
    www.dcs.warwick.ac.uk/bshm/
has many links to related sites.

The Italian Society of History of Mathematics web site at
    www.dm.unito.it/sism/index.html

The HPM-Americas web site is up and going. The new web site is
    www.hpm-americas.org

The HPM satellite meeting in connection with the Copenhagen ICME-10 in 2004 is planned for Uppsala with Sten Kaijser as the local person in charge. Visit
    http://www.math.uu.se/hpm/index.html
You can find out more about ICME-10 and register for the first announcement now at
    www.ICME-10.dk

The latest (number 28) AMUCHMA newsletter on the history of mathematics in Africa can be found at
www.math.buffalo.edu/mad/AMU/amuchma_online.html
All the earlier issues are available on the same web page.

For a history of HPM visit
http://mcs.open.ac.uk/puremaths/pmd_department/pmd_fauvel/HPM_%20history.htm

History and Epistemology for the Teaching of Mathematics has been activated at the address:
    www.syllogismos.it
On the site it is possible to find material relating to the teaching of mathematics and some historical references which will be useful in the field of mathematics. Every/any suggestion to improve such a site conceived mainly in terms of helping colleagues involved in education and in particular in teaching will also be welcomed.

Make sure you visit Iris Gulikers' website. She has produced a unit for schools so they

can replicate some of the techniques used by surveyors and this can be found on her website, some of which is in English as well as Dutch.
http://members.home.nl/gulikgulikers/WiskundePagina.htm

The editor welcomes information about other sites.

Conference reports

Third Conference on the History of Mathematics and Teaching of Mathematics

University of Miskolc, May 21-23, 2004.

Introduction
The idea of organising conferences was raised in connection with the establishment of the history of mathematics committee of the János Bolyai mathematical society initiated by Katalin Munkácsy and László Filep. Katalin Munkácsy organised the first conference at the Teacher Training College of Budapest. Its topic was predominantly methodological. With one exception the participants were Hungarians and the language was also Hungarian. The exception was David Lingard (UK) whose methodological address was translated.
The second conference, held in 2002, was organized also by Katalin Mukácsy. By that time her workplace, the Teacher College, had become a faculty of Lorand Eötvös University, Budapest. The number of participants was slightly higher, but otherwise it was very similar to the first one.
The third conference was the "first" in many respects: the place was not Budapest; it was not national but international, it was bilingual (Hungarian and English); it was predominantly historical; instead of one person it was organised by a group of four

Key information on the conference

Slogan: Mathematics – a common language for Europe for a thousand years.

Aim: To present aspects of the History of Mathematics and its impact on the teaching of mathematics, to meet each other and to give an opportunity for young researchers to present their results on history of mathematics.

Organising Committee:
Chairman: Gyula Maurer, former head of Mathematical Institute of Miskolc
Members: Péter Körtesi, Miskolc University, Katalin Munkácsy, Eötvös University, Budapest, Tünde Kántor, Debrecen University

Invited speakers and their talks:
Philip Davis (Brown U., USA): The Decline, Fall, and Current Resurgence of Visual Geometry.
David Lingard (Sheffield Hallam U., UK): Early Chinese mathematics for the Secondary school classroom.
Edmund Robertson (St. Andrews U., UK): Ten years of the Mac Tutor Archive.
John O'Connor (St. Andrews U., UK): Knots and Physics in 19th Century Scotland.
Elemér Kiss (Sapientia U., Romania): About János Bolyai's mathematical studies.
Tibor Weszely (Sapientia U., Romania): The mathematician Sámuel Teleki.
Miklós Szilágyi (Sapientia U., Romania): János Bolyai's "Scientia spatii", the root of relativity theory.
László Filep. (Nyíregyháza C., Hungary): How the Greeks might have discovered and approximate irrational numbers.

Other information: there were 60 participants from 7 countries; the proceedings will be put shortly on the web (http://www.uni-miskolc.hu/uni/hmtm), and will also be published in printed form.

<div style="text-align:right">László Filep
Nyíregyháza, Hungary</div>

The Symposium of the Historical Group for Arithmetic and Mathematical Education

(Symposium X van de Historische Kring voor Reken Wiskunde Onderwijs)
Utrecht 15 May 2004

Last December I was invited to give the closing talk at the above symposium concerning measurement in The Netherlands and England and knowing the fantastic hospitality of the Dutch I had no problem in accepting the invitation. My school also generously allowed me the Friday before to visit the Freudenthal Institute where the presentation of the Alympiad (details on the FI website) awards to young people were to take place.

First impressions on arriving in Amsterdam were excellent – I enjoyed a fresh herring (together with the requisite 'water' in which it could swim) and that set me up for the afternoon examining the work of students from The Netherlands, Germany and Denmark. They had been working on an applied problem in finding a suitable system for optimising the number and speed of translators in the new European parliament. After the award ceremony it was good to talk with them, their teachers and the staff at the Freudenthal Institute.

The Saturday symposium was fantastic. There was an excellent ambiance that is only achieved when people are willing to talk to each other openly and freely in pleasant surroundings and in good company. The Hogeschool Domstad at Utrecht seems to have been made for the occasion and Marjolein Kool as the compere helped put every one at their ease, though I felt sorry for the opening speaker (Iris Gulikers) since there were a few problems in getting the technology to work. This got sorted in time however so all was well.

Iris (Rijksuniversiteit, Groningen) got the symposium off to a cracking start with details of the 17th century land measurers

(surveyors). Excellent illustrations accompanied her talk on the surveyor's work in military and civilian life. She has produced a unit for schools so they can replicate some of the techniques used and this can be found on her website (http://members.home.nl/gulikgulikers/WiskundePagina.htm), some of which is in English as well as Dutch.

Edu Wijdeveld (oud-directeur IOWO) followed with a talk about the life and work of Marcel Minnaert (1893-1970). Minnaert was an astrophysicist who very much in touch with nature. He worked on the Fraunhofer lines in the sun's spectrum and developed the work by looking at the spectrum of other stars. We heard and saw some fascinating mathematics on the production of a rainbow by refraction of light through raindrops.
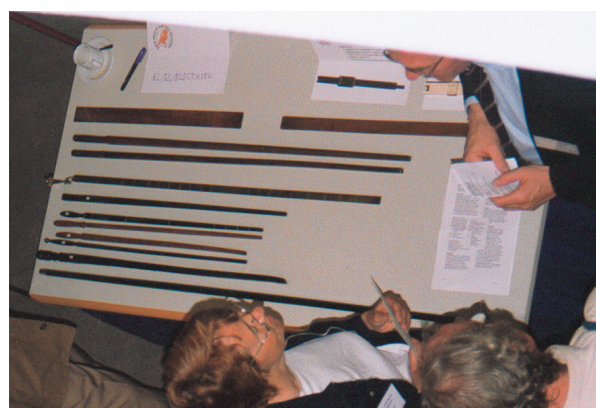
We then had a break for lunch and during that time we were able to examine some of the exhibits people had brought along. My favourite display was a selection of ell sticks, used throughout Europe to measure an ell of cloth (which was not a standard unit and hence necessitated the metric system). I have never before seen such beautifully marked sticks and it was a joy to see and feel them, but this joy was eclipsed by the appearance of Jan van Maanen who was in Utrecht at the time and dropped in for lunch.

Danny Beckers (SG De Monnikskep, Nijmegen) spoke first after lunch on the introduction of the metric system in the Netherlands between 1820 and 1850. He began by talking about Simon Stevin and progressed with some beautiful old

engravings of various mathematicians and their contributions to the introduction of the metric system in The Netherlands.

Ed de Moor (Freudenthal Institute, Utrecht) spoke about Freudenthal's work on measuring. He gave many examples of work that Freudenthal and his compatriots developed in the 1970's to help children's development of measuring.

My presentation revolved around measuring in old English textbooks and the imperial system of weights, measures and money. This was supplemented with some recent classroom activities, one of which I hope readers will try in their countries and send me the result. I have searched on the internet but have not managed to find any reference to this experiment having been performed since the 16th century. Readers who send me their results (p_ransom@hotmail.com) will receive a complete set of the data sent to me in due course.

The 'Right and Lawful' Rood
In a book on surveying by Koebel in the 16th century he mentions that the surveyor should request that on leaving the church service 16 men should stop as they come out and stand in a line with their left feet touching the others, heel to toe. Then the length of the 16 feet gives the 'right and lawful' rood. This method of random selection was used with my class of 11/12 year old pupils as they left my lesson, repeated with our school staff as they left a morning briefing and then

reiterated with some of the attendees at the conference.

11/12 year olds determine their rood …

… as well as the teachers.

The respective results were 4.14m, 4.40m and 4.68m – all well short of today's rod (5.03m) but longer than the old German rute (3.8m). The data suggest something midway between the two! Perhaps an international comparison would be amusing. Remember to send me your data!

Peter Ransom, Marjolein Kool, Harm Jan Smid, Ed de Moor, Danny Beckers and Edu Wijdeveld leave the Hogeschool Domstad

For further details of the Historische Kring voor Reken Wiskunde Onderwijs, contact Ed de Moor (e.demoor@fi.uu.nl)

Peter Ransom
Romsey, UK

HPM Asia-Pacific Conference

Taichung, Taiwan, May, 2004

The Asia Section of the HPM met at Taichung, Taiwan last May 22-24 at the National Tai-Chung Teachers College (NCTC). Taichung, Taiwan's "Central City", is a bustling town of over 1 million inhabitants. The conference was sponsored and hosted by the NCTC Department of Mathematics Education, with support and cooperation from the national government and local organisations. The six plenary sessions convened in the mornings. Afternoons began with presentations to smaller groups and concluded with more extended "workshop" sessions, which allowed more time for interaction than did the other sessions, at which questions usually came only in the last few minutes. The program was published on the HPM website. Unfortunately, however, Jan van Maanen, who was scheduled to speak, was unable to attend the conference.

The Conference Proceedings, published by the National Tai-Chung Teachers College, contain most of the talks in their entirety, either in English or Chinese. The 32 shorter talks are grouped under five headings: HPM, Mathematics Teachers' Professional Development, History of Korean Mathematics and the Transmission Issues, Dynamic Geometry Learning Environments, and Reflections on Mathematics Teaching at Elementary School.

Conference participants included faculty and graduate students from National Taiwan Normal University in Taipei as well as from NCTC. There were also quite a few local mathematics teachers, many of them recent NCTC graduates, who attended whatever portions of the program they were able to fit around their other professional obligations. The presence of these active students and young teachers added an air to the conference that made it feel like a real school. International participants came from India, Hong Kong, Japan, Korea, Italy, Canada, and the United States, some of them as invited speakers. I particularly enjoyed a talk by Alexei Volkhov, from Canada, who spoke of traditional mathematics education in Vietnam as a window on ancient Chinese mathematics education.

Besides the formal meetings of the conference, there were enjoyable opportunities for the participants to meet and chat. One of these was a bus trip to a local junior high school, which sits east of Taichung near the foothills of the mountainous central part of the island. The school itself is beautiful. It holds 1700 students, and it is nearly new, having been built to replace buildings damaged in a recent earthquake. I was struck by how spontaneously happy most of the kids appeared. A highlight of the school visit was an opportunity to observe a 7th grade lesson on the Pythagorean theorem. The youthful, enthusiastic teacher had an easy rapport with the students. The lesson began with some history of the Pythagorean theorem, including its Chinese roots. Next came a beautiful Geometer's Sketchpad presentation, showing animations of several proofs of the Pythagorean theorem, including Euclid's. After a student report, the class applied the theorem in practice exercises. Students put solutions on the blackboard and were gently corrected if they did not define unknowns or if they failed to take both square roots and then explain why they used only the positive one. The afternoon was spent at a nearby mountain resort, where we enjoyed hiking, relaxing in the waters of a hot spring, and a sumptuous dinner.

Indeed, no report of this meeting can fail to mention Taiwanese food, which is ubiquitous in forms ranging from street stands to elaborate banquets. Thanks to the efforts and generosity of the conference organisers, we were privileged to enjoy a wide variety of these foods, which added a delightful dimension to the trip and provided settings for interesting conversations.

Bob Stein

New magazine launched!

The MAA announces the launching of a new online magazine in the history of mathematics and its use in teaching, entitled *Convergence: Where Mathematics, History and Teaching Interact*, with the financial support of the National Science Foundation. The target audience is teachers of grades 9-14 mathematics, be they secondary teachers, two- or four-year college teachers, or college teachers preparing secondary teachers. ("Grade 9-14 mathematics" encompasses algebra, synthetic and analytic geometry, trigonometry, probability and statistics, elementary functions, calculus, linear algebra, and differential equations. It is usually the mathematics taught to pupils of ages approximately 14 –20.) The editors of the magazine are Victor J. Katz, from the University of the District of Columbia, and Frank Swetz, from Penn State University, Harrisburg.

Among the types of material that will appear in the magazine are the following:

- Expository articles dealing with the history of various topics in mathematics curriculum. Each article will have a discussion group attached, where readers can share suggestions as to how the material can be used in the classroom and point out strong points and possible pitfalls; authors would also have a chance to respond.

- Translations of original sources. These will generally be accompanied by commentary from experts showing the context of the works.

- Reviews of current and past books, articles, and teaching aids on the history of mathematics of use to teachers, as well as reviews of websites providing information on the history of mathematics. .

- Classroom suggestions. These may be self-contained articles showing how to use history in the teaching of a particular topic or they may be materials closely related to a main article, showing in some detail how to use the article in a classroom setting.

- Historical problems. These problems will appear in a section entitled ``Problems from another time,'' with new problems appearing frequently. After publication, the problems will be archived in sections based on the main topic of the problem, such as algebra, geometry, trigonometry, or calculus. Answers will appear separately.

- What Happened Today in History? Each day, there will be a listing of 2-3 "mathematical events" which happened on that date in history. Many of the items in this section will have links to other websites, so teachers can find out more about the particular person or event.

- Quotation of the day. A new and interesting quotation about mathematics from a historical figure will appear in this section each day. The reader will also be able to search our database of quotations to find additional ones.

- An up-to-date guide to what is happening around the world in the history of mathematics and its use in teaching. The magazine will report on past meetings and give notice of future meetings. Where abstracts are available for a particular meeting, these will be included. We may also include copies of handouts for easy access, as well as links to the author's webpage, if available.

Initially the magazine will be free to all. However, a subscription fee will be necessary after the initial period. We hope to secure institutional as well as personal subscriptions. Information as to cost and access will be provided on the Convergence site shortly.

Questions, ideas for articles, or electronic manuscripts can be sent electronically to Victor Katz at vkatz@udc.edu. If you have an idea for an article, but do not know how to produce applets for it, we suggest that you contact an expert on your own campus for help. If necessary, however, we can provide help in the editorial office, provided you give us very explicit instructions as to what you need. The editors look forward to producing this magazine for the mathematics community.

Convergence can be accessed through the MAA home page, www.maa.org, or directly through http://convergence.mathdl.org

Victor Katz
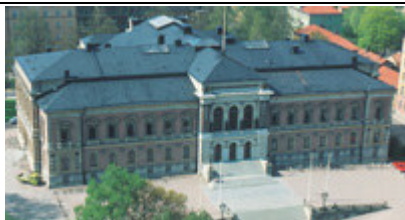
www-conference.slu.se/hpm/index.html
HPM 2004

Announcements of events

The Third BSHM/CSHPM Joint Conference
July 9-11, 2004
Cambridge, UK

This meeting follows the successful meetings held in Oxford (1997) and Toronto (1999). The contributions come from members of both societies and from many countries. More than 25 papers have already been accepted. Further details are available from the joint organisers.
John Earle (BSHM) c.j.earle@exeter.ac.uk
Adrian Rice (CSHPM) arice4@rmc.edu

HPM 2004 satellite conference of ICME-10
July 12 - 17, 2004
Uppsala, Sweden

We are happy to inform you that the HPM satellite conference of ICME-10 takes place on July 12 - 17, 2004 in the historic town of Uppsala, Sweden. It will be organised by the department of Mathematics at Uppsala University.
The chairman of the local organising committee is Sten Kaijser who is also the contact person in Uppsala.
A programme committee has been founded consisting of
    Fulvia Furinghetti (chairperson) <furinghe@dima.unige.it>, Dipartimento di Matematica, Università di Genova, Italy
    Sten Kaijser (secretary) <sten@math.uu.se>, Department of Mathematics, University of Uppsala, Sweden
    Abraham Arcavi <abraham.arcavi@weizmann.ac.il>, Weizmann Institute of Science, Israel
    Evelyne Barbin <evelyne.barbin@wanadoo.fr>, Centre François Viète, France

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<mathsiu@hkucc.hku.hk>, Department of Mathematics, University of Hong Kong
Costas Tzanakis <tzanakis@edc.uoc.gr>, Department of Education, University of Crete, Greece

About the conference

HPM is the International Study Group on the Relations between History and Pedagogy of Mathematics affiliated to ICMI. Among the activities of the group HPM there is the tradition of organising satellite meetings of the conference ICME. We list below these meetings:
1984 ICME-5 (Adelaide, Australia), satellite meeting in Sturt Campus of the University of Adelaide

1988 ICME-6 (Budapest, Hungary), satellite meeting in Florence (Italy)
1992 ICME-7 (Québec, Canada), satellite meeting in (Toronto, Canada)
1996 ICME-8 (Seville, Spain), satellite meeting in (Braga, Portugal)
2000 ICME-9 (Tokyo-Makuhari, Japan), satellite meeting in (Taipei, Taiwan).
The HPM Satellite conference is a unique occasion to attend lectures, workshops, research reports from all over the world about the use of history in mathematics education, history of mathematics, history of mathematics education. The participants to the HPM meetings are researchers in history, in mathematics education, and teachers who have experimented with the use of history in their teaching.

Books or proceedings published after the previous HPM satellite meetings:
Calinger, R. (editor): 1996, *Vita mathematica*, MAA Notes n.40. (HPM 1992)
Lagarto, M. J., A. Vieira & E. Veloso (editors): 1996, *Proceedings of Second European summer university and satellite meeting of ICME-8* (Braga, Portugal). (HPM 1996)
Katz (editor): 2000, *Using history to teach mathematics: An international perspective*, Mathematical Association of America. (HPM 1996)
Horng, W.-S. & F.-L. Lin (editors): 2000, *Proceedings of the HPM 2000 Conference History in mathematics education. Challenges for a new millennium. A satellite meeting of ICME-9*. (HPM 2000)

About the venue

The city of Uppsala is one of the oldest cities in Sweden. It was once considered the capital of Sweden and it is still the ecclesiastic capital since the residence of the archbishop of Sweden lies in Uppsala.
Uppsala has a famous university, founded 1477, which is the oldest in Scandinavia. The university has had many famous scholars and scientists of which the founder of botany, Carl von Linné is perhaps the most well known.

Also some of Sweden's most prominent mathematicians during the 20th century, foremost among them Arne Beurling and Lennart Carleson, were educated and for a substantial part of their career active in Uppsala.

For further information contact Sten Kaijser <sten@math.uu.se>. There is a web page under
http://www.math.uu.se/hpm

<div align="right">

Fulvia Furinghetti & Sten Kaijser
Italy & Sweden

</div>

Percy Alexander MacMahon's 150th Birthday Celebration

September 23, 2004
Milton Keynes, UK

Speakers: Paul Garcia, (Open University), George Andrews (Penn State University), Keith Lloyd (Southampton University) and David Singmaster (South Bank University)

There will be a display of MacMahon memorabilia.
Organiser: Paul Garcia
Email: paul@marybj.cix.co.uk

First Brazilian Colloquium on the History of Mathematics and the Fourth Luso-Brasilian Meeting on the History of Mathematics

October 24-27, 2004
Natal, Brazil
(First Announcement)

Joint Conference
The First Brazilian Colloquium on the History of Mathematics and the Fourth Luso-Brasilian Meeting on the History of Mathematics will be held jointly in Natal, RN (Brazil), from 24th to the 27th of October 2004. The General Coordinator of the events is Dr. John A. Fossa. A web page with more details is expected to be on line by early next year. For early registration, please contact Prof. Fossa at fosfun@digi.com.br.

BSHM Christmas Meeting 2004

December 11, 2004

This meeting will take place at King Edward's School, Edgbaston Park Road, Birmingham B15 2UA

Further details will be available in due course.

The celestial geometry of John Flamsteed: mapping the heavens from 17th Century Greenwich

February 10, 2005
London, UK

A joint meeting of the BSHM and Gresham College. Admission is free.
5.30pm for 6.00pm, Barnards Inn Hall, Holborn, London EC1N 2HH

Professor Allan Chapman,
During his 46 years as Astronomer Royal, John Flamsteed elevated the mapping of the heavens to an entirely new level. His practical geometry, and his development of mathematical instruments that worked to a new standard of accuracy, meant that his Catalogue remained in use well into the 18th century. Its production, however, plunged Flamsteed into a bitter controversy with Isaac Newton, while his eminence as an astronomical geometer led to his being invited to deliver an influential lecture series at Gresham College in 1684.

Mathematical Textbooks: History, Production and Influence

September 24-25, 2005
Oxford, UK

A joint meeting of the Oxford University Department for Continuing Education and the BSHM
Rewley House Organiser: Raymond Flood
BSHM Organisers: Jackie Stedall, June Barrow-Green (j.e.barrow-green@open.ac.uk)
Further details will be available in due course.

The 22nd International Congress of History of Science
24-30 July 2005
Beijing, China

The general theme is "Globalization and Diversity". Discussions will focus on the diffusion of science and technology between different cultures in the past, and its impact on the world today, as well as its prospects for the future advance of human civilisation.

The First Circular is available from the Congress Website:
http://2005bj.ihns.ac.cn .
For further information, please contact to the Congress Secretariat.

Secretariat of the 22nd ICHS
Institute for History of Natural Science
Chinese Academy of Sciences
137 Chao Nei Street
Beijing 100010
CHINA

e-mail: 2005bj@ihns.ac.cn

6th International Symposium on the History of Mathematics and Mathematical Education using Chinese Characters (ISHME)
August 4-7, 2005
Tokyo, Japan

The 6th ISHME will call its participants to discuss general issues related to the history of mathematics and mathematical education in East Asia. In addition to these topics, the Symposium will make the mathematics in East Asia from the 16th through the 19th centuries in global network a special subject of discussion.
The First Circular is available from the Secretariat of the ISHME6.
For further information, please contact to the Congress Secretariat.

Secretariat of the ISHME6
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Maebashi Institute of Technology
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JAPAN

e-mail: koba@maebashi-it.ac.jp

ICME-11
July 6-13, 2008
Monterrey, Mexico

ICME-11 will take place in Monterrey (Mexico), at the "CINTERMEX", the convention centre of the city. There is the tradition to organize the Satellite meeting of HPM in sites 'close' to the venue of ICME: for example, in 1992 ICME was in Quebec city and the Satellite meeting was in Toronto (both in Canada), in 1996 ICME was in Sevilla (Spain) and the Satellite meeting in Braga (Portugal), in 2000 ICME was in Tokyo/Makuhari (Japan) and the Satellite meeting in Taipei (Taiwan), in 2004 ICME is in Copenhagen (Denmark) and the Satellite meeting in Uppsala (Sweden). We encourage the members of HPM to submit proposals for the organization of the Satellite meeting of ICME-11.

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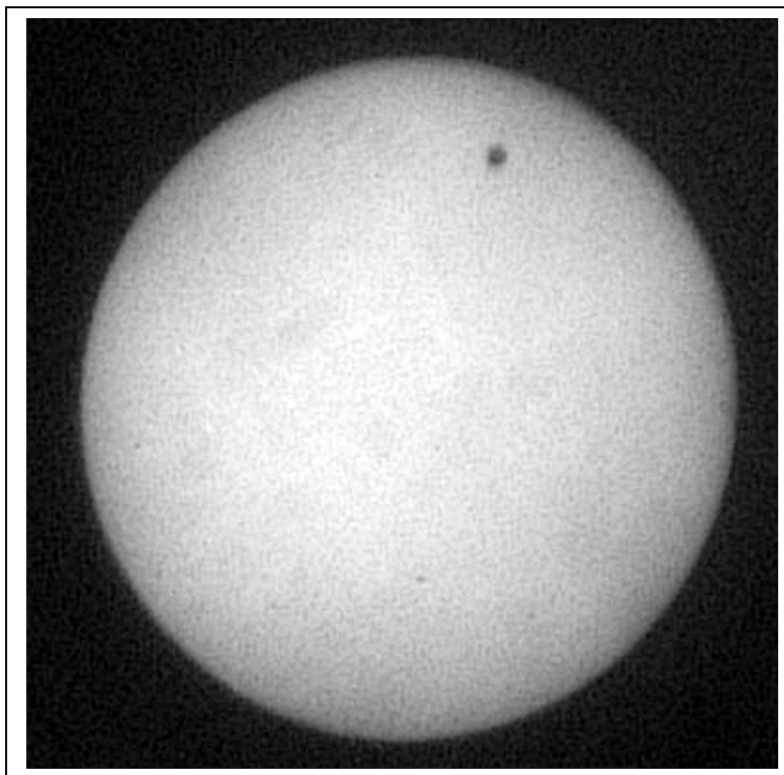
This picture of the transit of Venus was taken on June 8, 2004 at Romsey, UK