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

Nº 110 **July 2022**

This and earlier issues of the Newsletter can be downloaded from our website
http://www.clab.edc.uoc.gr/hpm/
These and other news of the HPM group are also available on the website
http://grouphpm.wordpress.com/
(the online and on time version of this newsletter).

NOTE FROM THE CHAIR

Dear friends,
I am sure we all approach the middle of July with a great sense of excitement that we will meet again in person after two years of online meetings only. For this we of course need to thank the ESU organisers: Marta Menghini (La Sapienza Roma University, Italy); Évelyne Barbin (University of Nantes, France); Roberto Capone (University of Salerno, Italy); Michael N. Fried (Ben-Gurion University of the Negev, Israel); Hélder Pinto (University of Aveiro & Piaget Institute, Portugal).

In terms of news, this time we have a couple of news items apart from our regular items: a contribution from the 24th Colloquium inter-IREM by Évelyne Barbin, Nathalie Chevalarias; a contribution by Luis Carlos Arboleda about some HPM activities in Latin America; a contribution by Costas Tzanakis, Renaud Chorlay, and Kathleen M. Clark, on the impending ZDM issue, vol. 54, no7, 2022.

I also report that our annual report has been submitted to the ICMI in which I have asked for help in either hosting our new websites which we spoke about developing, or supporting us financially to establish this ourselves. This new website would combine all our resources, and present one unified portal for all the interested in the history and pedagogy of mathematics. I will of course report on a reply as soon as I get it.

Without much further ado, I will leave you to browse this issue of our Newsletter and very much hope to seeing you in Salerno in a couple of weeks time.

Snezana Lawrence

ESU 9
9th EUROPEAN SUMMER UNIVERSITY ON THE HISTORY AND EPISTEMOLOGY IN MATHEMATICS EDUCATION

18-22 July 2022

University of Salerno
(Department of Mathematics)
Fisciano (SA), Italy

Website: https://esu9.unisa.it

General Activities

A Summer University (SU) on the History and Epistemology in Mathematics Education began as an initiative of the French Mathematics Education community in the early 1980's. From those meetings emerged the organization of a SU on a European scale and became the European Summer University (ESU) on the History and Epistemology in Mathematics Education. The first ESU was organized in Montpellier (France), 1993. The principal aims of the ESU are:

- to provide a forum for presenting research in mathematics education and innovative teaching methods based on a historical, epistemological and cultural approach to mathematics and their teaching, with emphasis on actual implementation;
- to offer an opportunity for mathematics teachers, educators and researchers to share their historical knowledge, their teaching ideas and classroom experience related to this perspective;
- in this way, to motivate further collaboration along these lines, among members of the mathematics education community in Europe and beyond.

Scientific Activities

The ESU is more a collection of intensive courses than a conference for researchers. It is a place where teachers and researchers meet and work together. It is also a place where beginners, more experienced researchers and teachers present their teaching experience to the benefit of the participants and get a constructive feedback from them—and it refers to all levels of education, from primary school to tertiary education, including in-service teachers' training. The programme and activities of ESU-9 are structured around the following main themes:

Theme 1: Theoretical and/or conceptual frameworks for integrating history and epistemology of mathematics in mathematics education;
Theme 2: History and epistemology in students and teachers mathematics education: Curricula, courses, textbooks, and didactical material of all kinds - their design, implementation and evaluation;
Theme 3: Original historical sources in teaching and learning of and about mathematics;
Theme 4: Mathematics and its relation to science, technology, and the arts: Historical issues and socio-cultural aspects in relation to interdisciplinary teaching and learning;
Theme 5: Topics in the history of mathematics education;
Theme 6: History of mathematics in Italy.

Overall Time Schedule (provisional)

	Monday 18	Tuesday 19	Wednesday 20	Thursday 21	Friday-24
9.00 – 10.00	Registration	**PL6** M. T. Borgato	**PL5** A. M. Gasca	**PL4** M. Roelens	**Special PI** P. Palhares
10.00 – 10.30		Break	Break	Break	Break
10.30 – 11.00		**WS 2** •Borgato, Fiocca, Gavagna •Delire •Rottoli Riva •Gosztony	Panel S. Lawrence J.- M. Delire H. Durnová	**WS 2** •Borgato, Lugaresi, Magrone, Lazzari •Hitchcock •Millan-Gasca •Michel-Pajus	**OP** •Del Sorbo, Capone, Enea •Andreadou, Nikolantonis •Affan •Almeida
11.00 – 11.30	Opening				**OP** •Tortoriello, Veronesi •Dattè Tomasi •Milici, Maschietto •Dandan Sun
11.30 – 12.00	**PL1** Abraham Arcavi				**OP** •Guillemette 2 •Florio, Fenaroli •De Bock •Palladino, Ughi, Paoletti
12.00 – 12.30			Lunch + excursion		**OP** •Louaked •Davidson Azevedo •Vargas-Zambrano, Montiel-Espinosa •Russi, Cantoral
12.30 – 14.00	Lunch	Lunch		Lunch	Lunch
14.00 – 14.30	**WS 2** •Barbin •Bernard – Darley •Clemente-Agudo •Crippa-Milici	OP •Ekici •Kourkoulos, Tzanakis •Pinto, Costa, Malonek •Tomasi, Dattè		**WS 1** •Veredice •Bellé •Romero-Vallhonesta •Tournés •Migliucci – Panichelli	**OP** •Magdalini •Bimonte, Veronesi •Christiansen
14.30 – 15.00		**OP** •Asenova •Guillemette 1 • Maschietto, Lugli •Alexandridou, Thomaidis, Nikolantonakis			**OP** •Canepa •Baltzis •Puig •Scalambro, Luciano
15.00 – 15.30		SOP * SOP **			**PL3** M. R. Massa-Esteve

15.30 – 16.00		Break		Break	
16.00 – 16.30	Break	**PL. 2** Dominique Tournès		**WS 2** •Moyon- Guillet •Petiurenko-Blaszczyk •Guitart •Vicentini	Closing
16.30 – 17.00	**WS 1** •Chorlay •Smestad •Dematté •Guillet-Moureau •Benvenuti	**WS 1** •Magrone-Zannoni •Roelens •Bogaart-Aktenberg •Pasquazi •Soto-Andrade			
17.00 – 17.30					
17.30 – 18.00				Theater show	
18.00 – 18.30	**OP** •Bogaart •Helf, Affan •Martins, Pinto, Gomes, Menezes, •Zhongyu Shen •Vicentini				
	OP •Thomaidis-Tzanakis •Adesso, Capone, Fiore •Weiss •Gropp				
				Conference dinner	

Short Oral Presentations *
Jiang
Garcia Linarez, Gonzalez Astudillo
Miani, Modica, Levrini
De Bortoli, Garbelini Rodrigues
Saadatmand
Prato, Cantoral

Short Oral Presentations **
Munoz-Escolano, Oller-Marcèn, Santagueda
Mutanen
Satanassi/Levrini
Galo Selvin, Cantoral
Mrabet
Peiyao

Poster
Ferrini Attilio

Please note the information about the fees:

Late registration (from 1 March to 31 May 2022): **270 Euro** (220 Euro for students and school teachers). Participants who wish to register later should contact **esu9.sa@gmail.com**

The plenary talks:

THEME 1
ABRAHAM ARCAVI, Weizmann Institute of Science, Israel
"Roles of the history of mathematics in the mathematical knowledge for teaching"

THEME 2
DOMINIQUE TOURNÈS, Université de la Réunion, France
"What history training for future mathematics teachers? Personal experiences and reflections"

THEME 3
MARIA ROSA MASSA-ESTEVE, Universitat Politècnica de Catalunya – Barcelona Tech (Spain)
"The Use of Original Sources in the Classroom for Learning Mathematics"

THEME 4
MICHEL ROELENS, UCLL Hogeschool, Campus Diepenbeek, Belgium
"Algorithms before computers"

THEME 5
ANA MILAN GASCA, Università di Roma 3, Italy
"A hidden thread: ideas and proposals on children's mathematics education in history"

THEME 6
MARIA TERESA BORGATO, Università degli Studi di Ferrara, Italy
"The History of Mathematics in Italy through the ages: sources, correspondences, and editions".

THEME 7
Special lecture
PEDRO MANUEL BAPTISTA PALHARES,
University of Minho, Portugal
Ethno + mathema + tics: The legacy of Ubiratan D'Ambrosio

The official languages of ESU-9 are English, French and Italian.

1) *Workshops* consist in studying a specific subject and having a follow-up discussion. The workshop organizer prepares, presents and distributes the historical/epistemological or pedagogical/didactical material, which motivates and orients the exchange of ideas and the discussion among the participants. Participants read and work on the basis of this material (e.g. original historical texts, didactical material, students' worksheets etc). Workshops will be scheduled in parallel sessions and will vary in duration (*1.5 hours for workshops based on didactical – pedagogical material; 2 hours for workshops based on historical and/or epistemological material*). It is preferable to organize Workshops in English. Nevertheless, workshop organizers who intend to organize their workshop in another official language are advised and encouraged to prepare copies in English of the material to be distributed to the participants (e.g. slides, worksheets etc).

2) *Oral presentations* will be allocated a 30-minute time slot each (25 minutes for presentation and 5 minutes for discussion), scheduled in parallel sessions. It is an activity in the spirit of a conventional research conference. Oral presentations can be delivered in any of the official languages. However, for presentations not in English, presenters will be asked to use two sets of slides; one set in the language they are going to give their presentation, and one set in English.

Further information:
About the venue:
The *Campus of Fisciano* is located in the periphery of Salerno (https://web.unisa.it/vivere-il-campus/unisa-experience/campus-map).

Accommodation is possible near the Campus or in the centre of Salerno (in this case a shuttle service will be available). You find Hotel information on the web site.

The area includes several UNESCO heritages, such as the *Amalfi coast* and *Paestum*, which will be destinations for excursions (https://web.unisa.it/en/campus-life/surroundings).

Report on some HPM activities in Latin America

Some events in History and Epistemology of Mathematics in the XII Symposium on Mathematics and Mathematics Education

The XII Symposium on Mathematics and Mathematics Education was held on February 18-19, 2022 (MEM Symposium 2022), in association with the XI International Congress on Computer Aided Mathematics, and the II Symposium on Mathematical Competitions. The organizers were the Doctoral and Master's Programs in Mathematics Education of the Universidad Antonio Nariño and 23 Colombian Universities.

Seventy-three guests from different areas of Mathematics Education participated as lecturers and professors, among them: Abraham Arcavi, Alan H. Schoenfeld, Ferdinando Arzarello, Juan Díaz Godino, Luis Carlos Arboleda, Luis Enrique Moreno Armella, Mogens Niss, Clara Helena Sánchez Botero, Gabriele Kaiser and Michèle Artigue. The Symposium was attended by researchers, students and professors from several countries in the Americas, Europe, Africa and Australia.

The Symposium regularly includes workshops and lectures on various topics in the History of Mathematics and Mathematics Education. The short course on History of Mathematics was given by Professor Luis Carlos Arboleda of the Universidad del Valle, Colombia, on "The

didactic and philosophical problem of the 'desaxiomatization' of mathematics according to Fréchet". The lecture "The game of the needle" on certain issues in the history of mathematics in Colombia was given by Clara Helena Sanchez of the National University of Colombia, Colombia.

One of the nine Thematic Study Groups (TSG) was dedicated to Mathematical Thought and the History of Mathematics. Among the papers of this TSG was "An introduction to the Social History of Mathematics Education", by Professor Fredy Enrique González, an outstanding researcher in this area. The TSG on the History of Mathematics is consolidated in each edition of the MEM Symposium with wide participation of graduate students, professors and researchers from different Latin American countries.

For more information, please contact Professor Osvaldo M Rojas, Programa de Doctorado y Maestría en Educación Matemática, Universidad Antonio Nariño, Bogotá, Colombia: orojasv69@uan.edu.co

Recent events on History of Mathematics Education in Latin America

The 6th Ibero-American Congress on the History of Mathematics Education (July 24-26, 2021), held virtually in Venezuela, shows the progressive consolidation of this field of studies, with the presentation of research by mathematics educators from several countries in the region.

Another important event in the same direction was the 1st Ibero-American Meeting of Graduate Programs in Mathematics Education, held in virtual format (December 1-2, 2021) under the coordination of the Ibero-American Network of Researchers in Mathematics Education and sponsored by the Federal University of Rio Grande do Norte (Brazil). The opening table of the meeting was dedicated to the "History of Graduate Studies in Mathematics Education in Ibero-America".

The speakers were Maria Aparecida Viggiani Bicudo (UNESP-Rio Claro; Brazil) who gave a lecture on "The origin of graduate studies stricto-sensu in Mathematics Education in Brazil"; Dario Fiorentini (UNICAMP, Brazil), who developed the theme "Graduate Studies and the development of Mathematics Education as a professional and scientific field"; Luis Carlos Arboleda (Universidad del Valle, Colombia) whose presentation was on "Graduate Studies and the Constitution of the field of Mathematics Education in Colombia". The opening of the event was closed by Walter Beyer (Universidad Nacional Abierta, Venezuela) who spoke on the "History of Graduate Studies in Mathematics Education in Venezuela".

It should be noted that the recent monographic edition of Revista Paradigma (http://revistaparadigma.online/ojs/index.php/paradigma/issue/view/81) includes an article on the historical process of the development of Didactics of mathematics in the region, from its beginnings to its constitution as a theoretical corpus (https://doi.org/10.37618/PARADIGMA.1011-2251.2022.p178-204.id1223)

This same topic of the genesis of regional studies in HEM will be addressed at the 35th Latin American Meeting of Educational Mathematics (RELME) to be held from July 3 to 8, 2022 in the Dominican Republic. Professor Fredy Enrique González, Venezuelan mathematics educator, will deliver a lecture entitled "Mathematics Education in Latin America: In Search of its Own Identity". It will deal with the historical reconstruction of the process of constitution of Mathematics Education as a disciplinary field in Latin America, covering the period from 1961 (I CIAEM in Bogota, Colombia) to the present (2022).

For more information, please contact Professor Fredy González, Núcleo de Investigación en Educación Matemática Dr. Emilio Medina, Universidad Pedagógica Experimental Libertador, Maracay, Venezuela: fredygonzalez@hotmail.com

The Historical Epistemological Analysis in Mathematics Education Discussion Group (AHEMatEdu).

The group is coordinated since 2017 by Gerardo Cruz-Márquez (Cinvestav, IPN, México), and Fabián W. Romero Fonseca (University of Costa Rica). It is a Latin American collective of students, teachers and researchers in Educational Mathematics and related areas, interested in reflecting on the foundations, methods and results of historical-epistemological studies. It has a list of participants of more than 100 professors, researchers and students from different countries and universities in Latin America.

The most significant activity up to now has been the participation in regional events. These include the Latin American Meeting of Educational Mathematics (Relme) and the Winter School in Educational Mathematics (EIME). The working modalities of the group and some of its products can be consulted at: Cruz-Márquez, Emmanuele, Romero y Lemus-Cortez, 2020; Cruz-Márquez, Romero y Gavarrete, 2019

See also the Round Table on Historical Research, coordinated by the group, in the framework of the VI Ibero-American Congress on the History of Mathematics Education (CIHEM) held recently: https://www.researchgate.net/publication/358421598_La_investigacion_historica_enfoques_para_la_ensenanza_y_aprendizaje_de_la_matematica_en_Mexico

For more information, please contact Gerardo Cruz-Márquez, Matemática Educativa, Cinvestav-IPN, México: Gerardo.

Luis Carlos Arboleda

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24th Colloquium inter-IREM Epistemology and History of Mathematics:

« Mathematics and sciences »

Toulouse, 20-21 May 2022

The 24th colloquium of inter-IREM Committee « Epistemology and history of mathematics » of the IREMs (Institutes of Research on Mathematical Teaching) took place in the University Toulouse III Paul Sabatier on 20th and 21th May 2022. The theme was "Mathematics and Sciences". The aim of the colloquium was to put into historical perspective the relations between mathematics and the other sciences, both experimental and human, present in school education. What has been the role of scientific problems in the construction of mathematical knowledge? How have they been integrated and modified in scientific practices and theories? In what epistemological terms have the interactions between mathematics and science been thought of? What is the history of their relationship as school disciplines, in France and elsewhere? How can we construct, from authentic historical sources or epistemological analyses, interdisciplinary situations relevant to today's teaching, from secondary schools to higher education - for example, in the context of science teaching in high school?

The colloquium brought together about 80 participants, teachers from secondary schools and universities, teacher trainers, researchers in history of mathematics and sciences and researchers in mathematics. Two plenary lectures were offered to participants : "Can we talk about mathematical instruments? " by Loïc Petitgirard and "On a possible mathematical consequence of the transition from chord to sinus in practice of the astronoms" by Guillaume Loizelet. They were supplemented by a public lecture " 'Walled-up women' from XVIIIth to XXth century : what contributions to mathematical sciences?" by Isabelle Lemonon.

The programme included 10 two-hours and half workshops and 10 one-hour oral presentations. They proposed to study links between mathematics and different sciences like physics ("The invention of a geometric-physical notion: curvature in Descartes, Huygens, Newton and d'Alembert"), astronomy ("Explain the movements of the planets"), biology ("Mathematical models and theories of the evolution of the living") or economy ("What happens to compound interests if they are recalculated at each moment? Jacques Bernoulli's answer") They all allowed to highlight the role of scientific problems in the building of mathematical knowlegdes and how these knowledges had been integrated in scientific practices and theories.

Several speakers gave examples of interdisciplinary situations in class, with historical sources, for secondary and higher teaching, as "History of Logarithms in class : diversity of points of view" or "The question of the form of the Earth, in secondary teaching".

The above examples are not exhaustive and all the proposals are accessible (in French) at https://ciiehm-toulouse.sciencesconf.org/data/Livret_des_resumes.pdf .

Évelyne Barbin,

Nathalie Chevalarias

MAA CONVERGENCE Teaching Mathematics through Its History with Convergence

Now in its 19th year, MAA Convergence is both an online journal on the history of mathematics and its use in teaching and an ever-expanding collection of online resources to help readers teach mathematics using its history. We highlight here some of our newest articles providing resources for use in your classroom and reflecting on the value history provides to the teaching of mathematics. The following items and more are accessible through finding aids such as those described below as well as from our homepage:

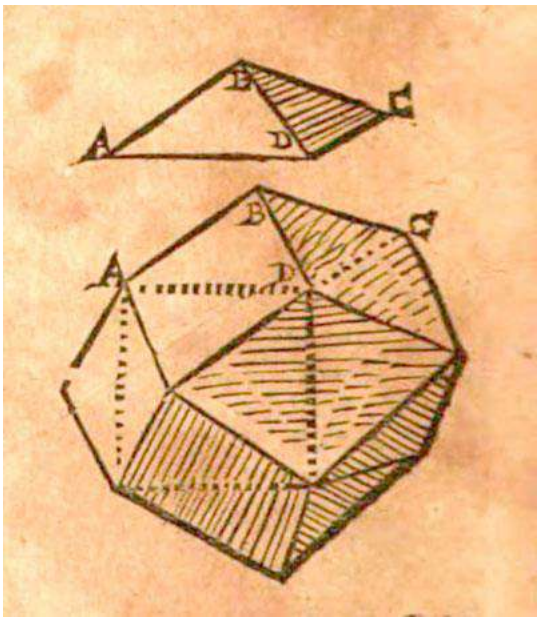
http://www.maa.org/press/periodicals/convergence

Two articles offer images of ancient numeral systems that can be used by the instructors of preservice teachers in the development of understandings of the structures and operations of arithmetic. In "An Ancient Egyptian Mathematical Photo Album – Hieroglyph Numerals and More", Cynthia J. Huffman shares photographs of hieroglyphs from an MAA study trip to Egypt and suggests classroom applications. In addition to examples of rod numerals and other classroom suggestions, Frank Swetz's "Reflections on Chinese Numeration Systems" contains musings about historians' hypotheses regarding the influences ancient Chinese numeration may have exerted on other cultures.

1,333,330 in Egyptian hieroglyphs from the Edfu Temple (237–57 BCE)

"Kepler and the Rhombic Dodecahedron," by Roberto Cardil, considers Johannes Kepler's writings on this polyhedron and develops the ideas into activities suitable for secondary school students that connect to three other areas of interest appealing to that audience:

- Nature (the construction of honeycomb cells);
- Technology (the packing of cannonballs);
- Art (connections with drawings by great Renaissance artists).



Drawing of a rhombic dodecahedron from Kepler's Epitome astronomiae copernicanae (1618–1621)

Convergence has also added contributions to several of its ongoing series. Its latest two reprints from NCTM's Mathematics Teacher examine rationales for using the history of mathematics in the teaching of mathematics:

- "Do Teachers Need to Incorporate the History of Mathematics in Their Teaching?" by Po-Hung Liu;

- "The High School Mathematics Curriculum—What Can We Learn from History?" by Robert Reys and Barbara Reys.

The papers by the two winners of the 2022 edition of HOM SIGMAA's Student Paper Contest are also available for download: "The Assumptive Attitudes of Western Scholars Regarding the Contributions of Mathematics from India: Assessing yukti-s from the Yuktibhāṣā of Jyeṣṭhadeva" by Rye Ledford (first prize) and "Estimations of π: The Kerala School of Astronomy and Mathematics, The Gregory-Leibniz Series, and the Eurocentrism of Math History" by Sarah Szafranski (second prize). Explore other entries in these series with Convergence's Series Index.

François-Hubert Drouais's 1753 portrait of Georges-Louis Leclerc, Comte de Buffon. Wikimedia Commons

Meanwhile, the collection of mini-Primary Source Projects from the TRIUMPHS team, "A Series of Mini-projects from TRansforming Instruction in Undergraduate Mathematics via Primary Historical Sources," offers one new entry:

- "How to Calculate π: Buffon's Needle – A Mini-Primary Source Project on Geometric Probability for Calculus 2 Students, Pre-service Teachers and Others," by Dominic Klyve

Last but not least, co-editor Janet Heine Barnett has made it considerably easier to find existing classroom-ready resources, teaching suggestions, and informative background articles. Articles from throughout *Convergence*'s publication history are now organized by course and educational level in our new Classroom Resource Index.

Have you used a primary source project or other classroom materials informed by the history of mathematics with your own students? ***Convergence*** **publishes classroom testimonials** describing instructors' experiences using a particular teaching aid, article, book, or website in the classroom. Testimonials may range from informal to formal evaluation, and the outcome may be adoption, adaptation, or rejection. Visit our Guidelines for Authors for more details on Convergence's submission and refereeing process.

Convergence also publishes expository articles on the history of topics in the grades 8–16 mathematics curriculum; translations of primary sources suitable for classroom use; classroom activities, projects, or modules for using history to teach mathematics; and classroom testimonials after applications of such activities, projects, or modules.

Interested in contributing or need help getting your ideas ready for submission? We'd love to hear from you at convergence@maa.org!

Amy Ackerberg-Hastings,
Independent Scholar, USA

Janet Barnett,
Colorado State University – Pueblo, USA
Editors, *MAA Convergence*

Have you read these?

Anglade, M. & Briend, J-Y. (2022). *Nombrils, bruslans, autrement foyerz*: la géométrie projective en action dans le *Brouillon Project* de Girard Desargues. *Archive for History of Exact Sciences*, *76*(2), 173–206.

Bingham, N. & Krzanowski, W. (2021). Linear algebra and multivariate analysis in statistics: development and interconnections in the twentieth century. *British Journal for the History of Mathematics*, *37*(1), 43-63.

Birkland, L. & Nossum, R. (2022). A letter from Malevich to Semevsky about Kovalevskaya. *Historia Mathematica*, *58*, 92–119.

Bistafa, S. (2022). Euler first theory of resonance. *Archive for History of Exact Sciences*, *76*(3), 207–221.

Bullock, J., Warwar, R. & Hawley, B. (2021). Why was Leonhard Euler blind? *British Journal for the History of Mathematics*, *37*(1), 24-42.

Carman, C. (2022). François Viète's method for calculating the eccentricity in a bisected model and its possible application to Kepler's Vicarious Hypothesis. *Historia Mathematica*, *58*, 71–91.

Chambris, C. & Visnovska, J. (2022). On the history of units in French elementary

school arithmetic: The case of proportionality. *Historia Mathematica, 59*, 99–118.

Ciocci, A. (2022). Federico Commandino and the Latin edition of Pappus' *Collection*. *Archive for History of Exact Sciences*, *76*(2), 129–151.

Enflo, P., Moslehian, M. & Seoane-Sepúlveda, J. (2021). A history of solving some famous problems in mathematical analysis. *British Journal for the History of Mathematics*, *37*(1), 64-80.

Ferreira, D. & Schubring, G. (2022). "Complex numbers" and the problem of multiplication between quantities. *Historia Mathematica, 59*, 119–145.

Fiette, B. (2022). Measuring crops with the *šukunnûm*-number. *Historia Mathematica, 59*, 71–98.

Ji, L. & Wang, C. (2022). Poincaré's works leading to the Poincaré conjecture. *Archive for History of Exact Sciences*, *76*(3), 223–260.

Karpińska, K. (2022). "Denominate numbers" in mathematics school textbooks by Stefan Banach. *Historia Mathematica, 59*, 164–196.

Keyser, P. (2022). The Archimedean 'sambukē' of Damis in Biton. *Archive for History of Exact Sciences*, *76*(2), 153–172.

Ma, M. & Pietarinen, A-V. (2022). Peirce's Dragon-Head Logic (R 501, 1901). *Archive for History of Exact Sciences*, *76*(3), 261–317.

Morrison, A. & Falconer, I. (2021). Women's participation in mathematics in Scotland, 1730–1850. *British Journal for the History of Mathematics*, *37*(1), 2-23

Proust, C. (2022). The sexagesimal place-value notation and abstract numbers in mathematical cuneiform texts. *Historia Mathematica, 59*, 54–70.

Scott, P. (2022). Ubiratan D'Ambrosio (1932–2021). *Historia Mathematica, 58*, 3–6.

Siegmund-Schultze, R. (2022). From lattices via social history to theories of modernity in mathematics: A biographical essay for Herbert Mehrtens (1946-2021). *Historia Mathematica*, *58*, 17–34.

Valério, M. & Ferrara, S. (2022). Numeracy at the dawn of writing: Mesopotamia and beyond. *Historia Mathematica*, *59*, 35–53.

Vandendriessche, E. (2022). The concrete numbers of "primitive" societies: A historiographical approach. *Historia Mathematica*, *59*, 12–34.

de Varent, C. (2022). Small numerical variations in a set of similar problems from Nippur on the area of the square. *Historia Mathematica, 58*, 35–70.

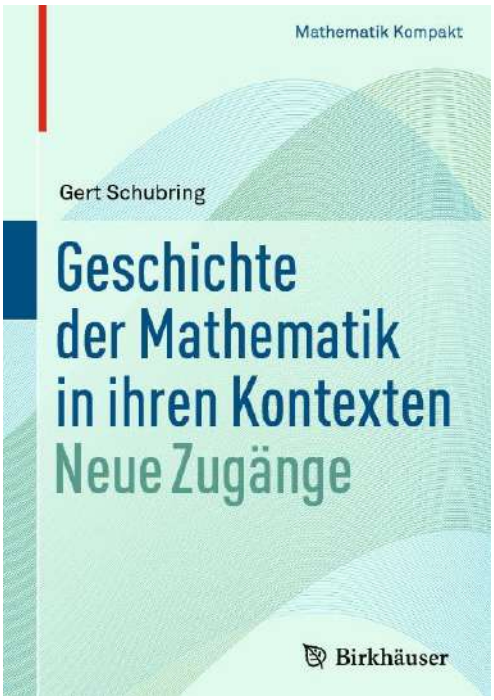
Wang, X. (2022). How Jean-Baptiste Delambre read ancient Greek arithmetic on the basis of the arithmetic of "complex numbers" at the turn of the 19th century. *Historia Mathematica, 59*, 146–163.

Zepeda, H., van Dalen, B. & Folkerts, M. (2022). In memoriam: Richard P. Lorch (1942–2021). *Historia Mathematica*, *58*, 7–16.

Geschichte der Mathematik in ihren Kontexten - neue Zugänge.

Basel: Birkhäuser 2021.
https://link.springer.com/book/10.1007/978-3-030-69483-8

A concise (published in the series: Mathematics compact) history of mathematics, emphasizing its contextualization, written for prospective mathematics teachers.



Gert Schubring

ZDM
MATHEMATICS EDUCATION
Vol. 54, no7, 2022

EXPLORING THE SIGNIFICANCE OF THE HISTORY OF MATHEMATICS IN MATHEMATICS EDUCATION

Guest Editors
Renaud Chorlay, INSPE de Paris (Sorbonne Université), Paris, France
Kathleen M. Clark, School of Teacher Education, Florida State University, Tallahassee FL, USA
ConstantinosTzanakis, Department of Education, University of Crete, Rethymnon, Greece

Having in mind the interesting research activity in the HPM domain over the last several years, (in particular as it appeared in important international meetings like ICME-13, HPM 2016, ESU-8, CERME 10, CERME 11, CERME 12, the forthcoming ESU-9, and the proceedings and monograph series to which these meetings have led), this special issue of a top-ranked journal like *ZDM – Mathematics Education*, aims to give the opportunity to communicate to a wide international readership recent research on the multifaceted role the history of mathematics can play in mathematics education at all levels of instruction, including teachers' training.

Specifically, this issue attempts to report on recent developments in this area, by including research reports both on empirical investigations and on theoretical

issues related to the history of mathematics in mathematics education. The invited peer-reviewed papers that have been submitted are related to one or more of the following interconnected main themes:

1. Theoretical and/or conceptual frameworks for integrating history in mathematics education; exploring how reflecting on the history of mathematics could enrich didactical research.

2. History and epistemology of mathematics in students' and teachers' mathematics education at all levels of instruction: Design and/or assessment of classroom experiments and teaching/learning materials (preferably based on empirical data), considered from various perspectives; e.g., cognitive, didactical, pedagogical, affective, etc.

3. Original historical sources and their educational effects: classroom implementations; enhancing and deepening reflections on the teaching and learning of mathematics.

4. Surveys on the existing uses of history or epistemology in curricula, textbooks, and/or classrooms in primary, secondary or tertiary levels, and in teacher training.

5. History and epistemology of mathematics as a tool for an interdisciplinary approach in the teaching and learning of mathematics by unfolding its productive interrelations with science, technology, and the arts.

The submitted research papers report on empirical investigations, surveys, and reflective and critical studies on the above themes. Some of these papers have already been accepted and published online (accessible at https://www.springer.com/journal/11858), while others are expected to appear in the next few months. The completed issue will be the last one of 2022 and is expected to be ready by the end of the year. For more details, see the *ZDM – Mathematics Education* official website at https://www.springer.com/journal/11858/updates

HPM Book Reviews

Compiled by Gail FitzSimons

Please send references to gfi@unimelb.edu.au

British Journal for the History of Mathematics, Volume 37, Issue 1, April 2022

Biggs, N. (2022). William Morgan. Eighteenth-century actuary, mathematician and radical. *British Journal for the History of Mathematics*, *37*(1), 81-82. doi:10.1080/26375451.2021.2009720

Wess, J. (2022). Symbols and things: Mathematics in the age of steam. *British Journal for the History of Mathematics*, *37*(1), 82-85. doi:10.1080/26375451.2022.2036410

Announcements of Events

ICHME 7
Seventh International Conference on the History of Mathematics Education

19-23 September 2022
Mainz, Germany

The main thematic issues of the Conference will be:
1 - to compare recent research on the history of mathematics education at the international level;
2 - to highlight and analyse the interrelations between the history of mathematics and the history of mathematics education;
3 - to explore new methods of research, interpretation, and evaluation of sources;
4 - to enrich the history of education with a comparative approach to the mathematical
contents taught;
5 - to take into account the sociological context to analyse the educational and professional scope of mathematics education;
6 - to analyse the dissemination of conceptions and reforms in mathematical education internationally.
The history of mathematics education is now a well-established area of research. The major moment in its modern development was the creation and work of TSG 29, the history of mathematics teaching and learning, at ICME 10 in 2004, in Copenhagen. Since then, it has been a subject of interest in various international meetings, e.g., at the ICME, HPM, CERME, and ESU conferences and an object of many studies and publications.
The first specialized research conference, entitled "Ongoing Research in the History of Mathematics Education", held in Garðabær near Reykjavík (Iceland) in 2009, led to a series of such specialized conferences. This will be the seventh international conference, this time held in Mainz, Germany. It will be the continuation of the successful work of the first six conferences, in Iceland (2009), Portugal (2011), Sweden (2013), Italy (2015), The Netherlands (2017) and France (2019).

To register to ICHME7 send an Email to Natalia Poleacova (npoleaco(at)uni-mainz.de) with the subject "ICHME7_registration_Name" and the completed form, which can be found on the homepage:
https://ichme7.uni-mainz.de/fb-08-ichme7/registration/

A publication of the Proceedings is planned. Submissions will be peer-reviewed.

Jörg Zender and Ysette Weiss

(local chairs)

Forthcoming BSHM Meetings

The British Society for the
History of Mathematics

http://www.bshm.ac.uk/events

1. Reappraising the 'Art of Counting'. An international symposium to celebrate 500 years of Cuthbert Tunstall's De arte supputandi libri quattuor

9 September, 2022
Durham, UK

The British Society for the History of Mathematics and the Department of Mathematical Sciences at Durham University are currently organizing a two-day symposium aimed at exploring and re-assessing the significance of Cuthbert Tunstall's *De arte supputandi libri quattuor*, a tract on arithmetic that was widely received across Europe in its day and that holds the honour of being the first work devoted exclusively to mathematics to have been printed in England.

Speakers include:

- Travis Williams (Rhode Island)
- Daniel Antonio Di Liscia (Munich)
- Stefano Gulizia (Milan)
- Thomas Henderson (Durham)
- Harald Gropp (Heidelberg)
- Deborah Kent (St Andrews)
- Satyanad Kichenassamy (Reims)
- Fenny Smith (Independent)

2. Women in Astronomy

16 September, 2022
London and online, UK

A joint meeting with the London Mathematical Society and the Institute for Mathematics and its Applications.

The meeting is a celebration of Women in Astronomy, which includes the celebration of the bequest to the LMS of of a rare book of astronomical tables, Urania Propitia, by Maria Cunitz from BSHM and LMS Member AEL Davies. Urania Propitia was published in 1650 and fewer than 25 physical copies are known to exist.

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http://www.clab.edc.uoc.gr/hpm/
These and other news of the HPM group are also available on the website
http://grouphpm.wordpress.com
(the online and on time version of this newsletter).

Items for the Newsletter should be sent to the editors, preferably by email (see addresses below).
The Newsletter appears three times a year with the following deadlines for next year.

No.	Deadline for material	Sent to distributors
111	**12 October 2022**	**November 2022**
112	12 February 2023	March 2023
113	12 June 2023	July 2023

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A note from the Editors

The Newsletter of HPM is primarily a tool for passing along information about forthcoming events, recent activities and publications, and current work and research in the broad field of history and pedagogy of mathematics. The Newsletter also publishes brief articles which they think may be of interest. Contributions from readers are welcome on the understanding that they may be shortened and edited to suit the compass of this publication.