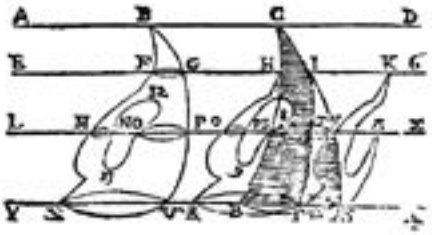
BULLETIN

CSHPM  SCHPM

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WHAT'S INSIDE

Canadian Society for History
and Philosophy of Mathematics

Société canadienne d'histoire et
de philosophie des mathématiques

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ABOUT THE SOCIETY

Founded in 1974, the Canadian Society for the History and Philosophy of Mathematics / Société canadienne d'histoire et de philosophie des mathématiques (CSHPM/SCHPM) promotes research and teaching in the history and philosophy of mathematics. Officers of the Society are:

President: **Alexander Jones**, University of Toronto, Toronto, ON M5S 2E8, CA,
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The Society's Web Page (www.cshpm.org) is maintained by **Michael Molinsky** (see above) The proceedings of the Annual Meeting are edited by **Antonella Cupillari**, School of Science, Penn State Erie, The Behrend College, Erie, PA 16563, USA, axc5@psu.edu

New Members are most cordially welcome; please contact the Secretary.

From the President

For many years, the major event of our Society's year, the annual meeting, was always part of the Canadian Learned Societies Congress (the "Learneds"). Then, about a decade ago, the Canadian Federation for the Humanities and Social Sciences removed their requirement that its member societies must meet at the Learneds. We took advantage of this freedom and gradually developed a more complicated dance, meeting sometimes with the Congress of the Humanities and the Social Sciences (as the Learneds are now officially called), sometimes with the Canadian Mathematical Society, and sometimes with the British Society for the History of Mathematics. In addition to trying to maintain our connections with other organizations having the same or related interests, our choice of meeting venues aims to balance the charms of exotic places with the convenience–especially for our vast hordes of non-Canadian members–of locations in central Canada, within reach of the great transportation hubs. Our 2008 meeting, with the Learneds in Vancouver, would, I suppose, come under the heading of exotic charms (I speak with the authority of an old Vancouverite...).

For many of our members, the Learneds have the special draw that other Canadian societies having philosophical or historical focus meet there, though this is a bit less predictable since the other societies also now sometimes go their own way. We have especially longstanding ties to the Canadian Society for the History and Philosophy of Science (CSHPS/SCHPS), and this relationship has been reflected through joint sessions when it has been possible to hold our meetings on overlapping dates. At the Vancouver meeting we will continue this tradition, and as well we will break new ground through a joint session with the Canadian Society for the History of Medicine (CSHM/SCHM). Our special session on Trigonometry and the keynote May Lecture by Glen Van Brummelen will naturally harmonize with the unofficial theme of mathematics interacting with the sciences set by these joint sessions. We look forward to seeing many of our members and friends at these and the regular sessions.

Alexander Jones

Announcements

The MAA has awarded its Trevor Evans Award to Adrian Rice and Eve Torrence, both of Randolph Macon, for their article, "Lewis Carroll's Condensation Method for Evaluating Determinants," which appeared in the November 2006 issue of *Math Horizons*.

Craig Fraser delivered the public lecture, "Three Centuries of Leonhard Euler," for the Royal Canadian Institute and the Fields Institute for Research in Mathematical Sciences in Toronto on 2 March 2008.

Len Berggren participated in a conference on "Lost and Embedded Manuscripts" at Egypt's Biblioteca Alexandrina, 6-8 May 2008. He expects to report on this meeting for our next issue. His talk was "Lost and Embedded Manuscripts in the Works of Abu Sahl al-Kuhi": A study of the manuscripts of Abu Sahl al-Kuhi (4/10 c.) presents a number of cases of 'lost' and 'embedded' manuscripts. Although Omar Khayyam described him as one of the 'distinguished mathematicians' of Iraq, and some thirty of his works survive, a number of important works have, apparently, vanished. These are all, somehow, related to the work of Archimedes and among them are a major work on centers of gravity, a work on the division of a sphere by planes, another on the pseudo-Archimedean Lemmata, and a fourth on cutting a straight line into segments whose ratios are equal to the ratios of certain areas. Although they are lost, we may obtain clues as to the contents of these works from fragments of them embedded in extant manuscripts. Our talk will discuss these works, their significance, and the ways in which they are embedded in other works.

Birkhäuser has published Israel Kleiner's *A History of Abstract Algebra*. The paperback contains separate chapters on aspects of the development of groups, rings, and fields. There is a special focus on six notable figures: Cayley, Dedekind, Galois, Gauss, Hamilton, and Noether. Kleiner aims to reach mathematics instructors, algebraists, historians of science, and classes in abstract algebra and the history of mathematics. His book description reads in part: "The development of abstract algebra was propelled by the need for new tools to address certain classical problems that appeared unsolvable by classical means. A major theme of the approach in this book is to show how abstract algebra has arisen in attempts to solve some of these classical problems, providing context from which the reader may gain a deeper appreciation of the mathematics involved."

Princeton University Press has published *The Mathematics of Egypt, Mesopotamia, China, India, and Islam: A Sourcebook*, ed. Victor J. Katz. Annette Imhausen, Eleanor Robson, Joseph W. Dauben, Kim Plofker and J. Lennart Berggren served as section authors.

Len Berggren and Nathan Sidoli announce two joint publications: "Aristarchus's On the Sizes and Distances of the Sun and the Moon: Greek and Arabic Texts," *Archive for History of Exact Sciences* 61 (2007), 213 - 254; and "The Arabic Version of Ptolemy's Planisphere or Flattening the Surface of the Sphere: Text, Translation, Commentary," *SCIAMVS* 8 (2007), 37 - 139.

Tom Drucker has learned that Birkhäuser reprinted his *Perspectives on the History of Mathematical Logic* (1991). He wryly comments, "They never bothered to contact me, even though I had plenty of typos to ask them to correct, and the copy on display [at the Joint Mathematics Meetings] in San Diego looked woebegone with all the uncorrected errors. The fact that the book is now called a Birkhuser Modern Classic and is available in paperback does not entirely salve the wound."

WIT Press, a major publisher of engineering research, announces *"Magic is No Magic": The Wonderful World of Simon Stevin*, by J. T. DeVreese (Antwerp and Technical Univ. of Eindhoven) and G. Vanden Berghe (Ghent). The book gives a comprehensive picture of the activities and creative heritage of Stevin, who made outstanding contributions to many fields of science (in particular, physics and mathematics). Stevin also urged the universal use of decimal fractions along with standardization in coinage, measures and weights. The book is aimed at the widest possible readership. A full description may be found at http://www.witpressusa.com under acatalog/9781845640927.html. WIT Press is pleased to offer CSHPM members a 30% discount on orders for the book placed directly with Computational Mechanics, Inc. within two months of the arrival of this May issue in your mailbox. Contact Computational

Mechanics, Inc., by mail (25 Bridge Street, Billerica, MA 01821), phone (978-667-5841), or email (marketingUSA@witpress.com).

Alan Bowen and the Institution for Research in Classical Philosophy and Science, located in Princeton, NJ, announce their publication series entitled *Interpretatio: Sources and Studies in the History and Philosophy of Classical Science*. *Interpretatio* focuses on what was called science from antiquity up to the early modern period in cultures ranging from Spain to India, and from Africa to northern Europe. The aim of this series, which is to be published both online and in print, is to present fundamental texts in the history of science and to make them accessible to the modern reader by means of translations and interpretations that satisfy the requirements of specialists but still address the needs of non-specialists and general readers. The Sources include reprints, editions, and translations of works in the pre-modern sciences and of treatises in which these sciences are subjected to critical examination. These texts are supplied with general introductions and philological or technical commentaries when appropriate, and supplemented by annotated bibliographies and lexica. The Studies present the latest results of historical research and interpretation in analyzing these sciences, their place in their contemporary intellectual culture, and their impact on subsequent philosophical and scientific thinking. They include sustained treatments of single subjects as well as collections of essays on one or more related subjects. The first book in the series is *Alhacen's Theory of Visual Perception: A Critical Edition, with English Translation and Commentary, of the First Three Books of Alhacen's De aspectibus, the Medieval Latin Version of Ibn al-Haytham's Kitab al-Manazir*, by A. Mark Smith. Prospective authors are invited to discuss proposals with the Editors, Alan C. Bowen and Francesca Rochberg by emailing Editors, Interpretatio (ircps@IRCPS.org).

Byron Wall (York) is president of Wall & Emerson, Inc., a Canadian textbook publishing company founded in 1987 and based in Toronto. The house's publication list includes some mathematics and history of science textbooks, monographs, and reprints. See http://www.wallbooks.com. For authors, the history and philosophy of science and technology (including science and society) is a subject area for which undergraduate textbooks that would serve specific, ongoing courses are being sought. Texts in mathematics that offer a unique point of view will also be considered.

The CFHSS budget report for 2008 noted the creation of a new scholarship award as a component of the Canada Graduate Scholarship Program. The budget allocates $25 million over two years to the Vanier Scholarship, which will be made available to Canadian and international PhD candidates studying at an institution in Canada. Each scholarship will be worth $50,000 per year for up to three years. No allocation among disciplines has been indicated for these new scholarships; the government will likely look to the three granting councils to determine the allocations. No additional funding was announced to the existing Canada Graduate Scholarships for Canadians at the masters' and PhD levels. However, current holders of the scholarships will be eligible for a new international study stipend to study at international institutions. This stipend, totalling $3 million over two years, will be worth up to $6,000 to 250 Canada Graduate Scholarship recipients, to complete one semester of studies abroad.

As noted at the 2007 AGM, Jim Tattersall (Providence) has joined Sergio Nobre (Univ. Estadual Paulista - Rio Claro) to organize a history session at the first joint meeting of the AMS and the Sociedade Brasileira de Matemtica in Rio de Janeiro, 4-7 June 2008. Watch for a report in our next issue.

The sixth joint meeting of the BSHS, CSHPS, and HSS will be held at Keble College, Oxford, 4-6 July 2008. History and philosophy of mathematics on the program includes these sessions: Connecting Disciplines: Mathematics, Natural Philosophy, and Reason in the Early Modern Era; Thinking with Experiments, or the Invention of Theoretical Physics, 1850-1914; 19th-century Optics; Quantum Physics at the Crossroads; Prophecy, Time and Optics in 17th-century England; Natural Philosophy and Instruments in the 17th and 18th Centuries; Cosmology and Mechanics from the 4th Century to the Middle Ages; Borders of Physics; The Mathematics of Learned and Practical Men in Victorian Britain; The "Usefulness" of Scientific Instruments in the Early Modern World; Mathematics and Natural Philosophy in the 16th and 17th Centuries; Astronomy and Travel; and

Connecting Disciplines Through Mathematics. See http://www.bshs.org.uk/bshs/conferences for further information.

The MAA's MathFest will be held in Madison, WI, 31 July-2 August 2008. There will be an invited papers session on The History of Mathematics organized by Shawnee MacMurran and Amy Shell-Gellasch and a contributed papers session on Interesting Problems in the History of Mathematics that Enhance the Teaching and Learning of Mathematics organized by Dan Curtin and Amy Shell-Gellasch. Amy has also organized a reception on 31 July at 4:00 p.m. for the unveiling of two new MAA historical posters, "Women in Mathematics" and "Ethnomathematics." Online registration continues through the meeting; visit http://www.maa.org/subpage_4.html and click on MathFest under MAA Meetings.

The Midwest History of Mathematics Conference (MHMC) will take place in the Reinhart Center of Viterbo University, LaCrosse, Wisconsin, 3-4 October 2008. The keynote speaker will be Chris Christensen from Northern Kentucky University, "The Theorem that Won the War," on the work of Polish, British and American mathematicians whose work culminated in the breaking of the Nazi Enigma Code. As the local organizer, Michael Wodzak solicits talk submissions and invites colleagues to attend. The forms for registrations and abstract submissions can be found at http://www.viterbo.edu/mhmc.aspx. The proposal deadline is 15 August 2008. A tentative schedule of the conference is at the same website. Any questions can be directed to Michael Wodzak (mawodzak@viterbo.edu). Viterbo University is easy to reach from I-90, and the area, nestled between the bluffs next to the Mississippi River, is beautiful in the fall. Consider participating and presenting!

The fourth annual Smoky Mountain Undergraduate Conference on the History of Mathematics was held 26 April 2008 at Western Carolina University. The meeting featured student talks on the history of mathematics AND mathematics informed by its history, a poster session, and a keynote address from Dr. Patti Hunter of Westmont College. Like the past three years, a free lunch was served and registration was free. Limited housing was available for folks traveling a long distance. Abstracts and pictures from SMURCHOMs I-III may also be viewed at http://paws.wcu.edu/despeaux/4smurchom.html.

The fall MAA MD-DC-VA section meeting at Anne Arundel Community College in Arnold, MD, held 9-10 November 2007, featured a number of Euler presentations. Victor (UDC) and Phyllis Katz shared a slide show travelogue of the 2007 MAA study tour, "Breathing Euler's Air," during the Friday night banquet. Invited addresses were given by Edward Sandifer (Western Conn.), "Five Pearls of Euler"; William Dunham (Muhlenberg), "An Euler Trifecta"; and Ron Calinger (Catholic), "Leonhard Euler: The Second St. Petersburg Period."

The Frederick V. Pohle Colloquium in the History of Mathematics hosted by the Department of Mathematics & Computer Science at Adelphi University presented the following speakers this past year: Len Berggren (Simon Fraser), "Artistic Problems in Islamic Geometry" on 10 October 2007; Emili Bifet, "Paolo Ruffini and the Beginnings of Group Theory" on 7 November 2007; Lee Stemkoski (Adelphi), "Euler's Notebooks and Unpublished Manuscripts" on 5 December 2007; Larry D'Antonio (Ramapo), "Henry Smith contra Minkowski: A 19th-century Cause Célèbre" on 6 February 2008; Christopher Baltus (SUNY - Oswego), "Euler, Continued Fractions, and the Pell Equation" on 2 April 2008; Jean-Paul Pier (Luxembourg), "Bourbaki, an Epiphenomenon in the History of Mathematics" on 9 April 2008; and George Rosenstein (Franklin and Marshall), "Granville, the Man and the Book" on 7 May 2008. A video archive is maintained at http://www.pohlecolloquium.org.

Since our last issue, the following speakers have been added to the Philadelphia Area Seminar on the History of Mathematics program: Amy Ackerberg-Hastings (UMUC), "'The Acknowledged National Standard': Charles Davies, A. S. Barnes, and Textbooks as Teaching Tools" on 13 March 2008; Patricia Kenschaft (Montclair State), "Minority Mathematicians" on 18 September 2008; and Steven Weintraub (Lehigh), "Cayley Documents in Lehigh's Possession" on 16 October 2008. Each evening begins with a light supper, at a cost of $8.00, at 6:00 pm, with the talk to follow at around 6:30 or 6:40. For more information or directions, please contact Tom Bartlow, thomas.bartlow@villanova.edu or http://www66.homepage.villanova.edu/thomas.bartlow/PASHoM/PASHoM.htm.

MHMC also sponsored sessions at this year's International Congress on Medieval Studies in Kalamazoo, MI, 8-11 May 2008. One session discussed the prehistory of the logarithm; the other dealt with contributions from different faith backgrounds. MHMC hopes to make their participation a permanent fixture of this conference, so any support from CSHPM members would be very welcome. Contact Michael Wodzak (mawodzak@viterbo.edu) if you are interested in helping to organize or participate in future sessions. For more information on the Congress, see http://www.wmich.edu/medieval/congress.

Danny Otero (Xavier), with David Pengelley (New Mexico State) are organizing a Summer Short Course for the MAA Ohio Section, entitled "Study the Masters: Using Primary, Historical Sources in Teaching and Research." The three-day workshop will be held 18-20 June 2008 at Xavier University in Cincinnati, Ohio. Participants in this three-day workshop will learn about teaching with primary historical sources in mathematics, and will be given the opportunity to prepare some primary sources of their own choosing to use in their own classrooms. They will also see how reading, studying, and teaching with primary sources can lead to scholarship in history of mathematics. There is a limit of 25 participants and a registration deadline of 19 May 2008. To register, send $50.00 deposit (US funds, payable to Xavier University) to Daniel E. Otero, Department of Mathematics & Computer Science, Xavier University, Cincinnati, OH 45207-4441. Total registration cost is $175.00. Additional information is available at http://www.cs.xu.edu/otero/2008ShortCourse.

Nexus 2008: Relationships between Architecture and Mathematics will be held at Point Loma Nazarene University in San Diego, CA, 23-26 June 2008. The Nexus conferences are international conferences dedicated to explorations of the relationships between architecture and mathematics, through a broad panorama of topics, many of them historical. In the past, these topics have included: symmetry in architecture, projective and descriptive geometry, soap bubbles and minimum surfaces, systems of proportions, geometry and urban design, the development of structural forms, the use of arithmetical, geometrical, and harmonic means, calculations of domes and arches, linear algebra and geometric forms, music theory and architecture, fractals in architecture, etc. Presentations have also included discussions of the work of individual architects, such as Alberti, Palladio, Frank Lloyd Wright; historical periods, such as Roman, Incan and Renaissance; the application of particular branches of mathematics to architectural design, such as geometry and algebra. Visit http://www.nexusjournal.com/2008 for information on this meeting; the registration deadline is 13 June 2008. The contact person is Maria Zack (MariaZack@POINTLOMA.EDU). There will be a poster session as well as paper presentations.

The Society for the History of Technology (SHOT) Special Interest Group Women in Technological History (WITH) announces its travel grant for 2008, a call for "new voices" to participate in SHOT's annual meeting in Lisbon, Portugal, 11-14 October 2008. Graduate students, scholars new to SHOT, scholars researching topics or perspectives underrepresented in SHOT, and scholars from underrepresented constituencies, geographic and cultural, are particularly encouraged to apply. Seeking to foster exchange of ideas among cultures and to help broaden the intellectual scope of our field, the WITH Travel Award will support papers that especially consider questions of ethnicity, gender, and modes of difference in the history of technology, and scholars who come from non-US and non-Western venues.The award will include registration for the Lisbon meeting, a year's membership to SHOT and WITH, the WITH breakfast or lunch, the graduate student breakfast (if appropriate), and the awards banquet; the balance of funds will be allocated to travel expenses. See http://www.historyoftechnology.org (annualmtg.html) for details on the meeting; paper proposals were due 14 March 2008. The WITH homepage can be found at http://www.geography.wisc.edu under WITH. The application deadline for the WITH Travel Award is 15 June 2008.

The MAA's online Basic Library List (BLL), begun in 1992, has been revived. Paul Schuette (schuette@meredith.edu), chair of the BLL committee, solicits ideas for scholarly and student resources to add to the current list of 445 books. The history recommendations from 1992 may be viewed at http://www.maa.org/bll2/history.htm. Schuette is especially interested in works that escaped the notice

of MAA reviewers.

Exchanges on the HOMSIGMAA email list have also made it clear that many novice math history instructors and enthusiasts are fumbling around in isolation. Amy Shell-Gellasch has thus provided an outreach opportunity for providing our guidance and expertise. She is seeking suggestions for the HOMSIGMAA website in the following areas: 1) books for new history of math instructors; 2) the name, link, and one-line description for great math history websites; 3) syllabi or course materials for math history courses; 4) good movies or documentaries; 5) journal articles that are accessible to students. Please send separate emails for each type of material to Amy (shellgae@PLU.EDU).

Proceedings Sale

Our fearless Secretary and mailings maven, Patricia Allaire, is clearing excess copies of old Proceedings from her office in anticipation of retirement. These back issues are now available to you at more than half off their original price!

Copies are $8 for the first volume, $7 for each additional volume. Price is the same for $US or $Can. These bargain basement prices include postage. Pat will reserve copies in response to email requests (pallaire@qcc.cuny.edu). Please follow up as soon as possible with a check, postal mailed to Patricia Allaire, 148-18 60 Ave., Flushing, NY 11355, USA.

Availability is as follows: Volume 11 (Ottawa, 1998), 1 copy; Volume 14 (Laval, 2001), 2 copies; Volume 15 (Toronto, 2002), 1 copy; Volume 16 (Halifax, 2003), 7 copies; Volume 17 (Cambridge, 2004), 3 copies; Volume 18 (Waterloo, 2005), 3 copies. Volume 19 (York, 2006), 2 copies. Tables of contents for each volume of the Proceedings may be viewed at http://www.csphm.org.

Socrates on Trial 2008

Socrates on Trial 2008, starring Paul Toolin, will be staged at the Telus Studio Theatre, a modern facility with streamlined architecture located within the University of British Columbia Chan Centre for the Performing Arts, from May 31 to June 3 (curtain at 6:30 pm), and from June 5 to June 7 (curtain at 8:00 pm).

The play, published by the University of Toronto Press, is a modern adaptation of Aristophanes' slapstick comedy *The Clouds* and several of Plato's dramatic dialogues. It tells the story of the trial and death of Socrates, but in a contemporary context, asking whether the famous philosopher deserved to be executed. Note that this production

Figure 1: Poster advertising "Socrates on Trial"

coincides both with the CFHSS Congress and with UBC's centennial. This will be an excellent way to spend an evening during our own annual meeting. Tickets are $18 ($15 for students) and may be purchased in advance by visiting the Chan Centre Ticket Office at 6265 Crescent Road on campus or by contacting Ticketmaster (service charges apply), http://www.ticketmaster.ca or 604-280-3311. For additional information, please email or phone Andrew Irvine, a.irvine@ubc.ca or 604-822-5448.

Andrew Irvine

Philosophia Mathematica

Philosophia Mathematica (*PM*) is the only journal in the world devoted specifically to philosophy of mathematics.

PM publishes peer-reviewed new work in philosophy of mathematics, the application of mathematics, and computing. In addition to main articles, sometimes grouped on a single theme, there are shorter discussion notes, letters, and book reviews.

Are you curious about the journal, or have you considered subscribing? Courtesy of Oxford Journals, **take out a free online trial subscription to PM until 18 August 2008**. You will have access to all online articles, from past issues to current. Follow the 3-step process below to register:

1. Visit the Oxford Journals 'My Account' registration page at http://www.oxfordjournals.org/register and follow the instructions to register your own username and password.
2. Once you are logged in to 'My Account', click on 'Manage your subscriptions'.
3. Enter trial code A2386265 into the 'Subscriber number' box and click on 'Submit'.

You will then have free online access to the journal until 18 August 2008 and can access the journal content using your 'My Account' username and password.

Take advantage of other free online services to enhance your experience with the journal both during and after your free online trial:

- View free sample issues of over 200 other Oxford Journals.
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- Browse through the Advance Access articles (articles available online before the print versions).

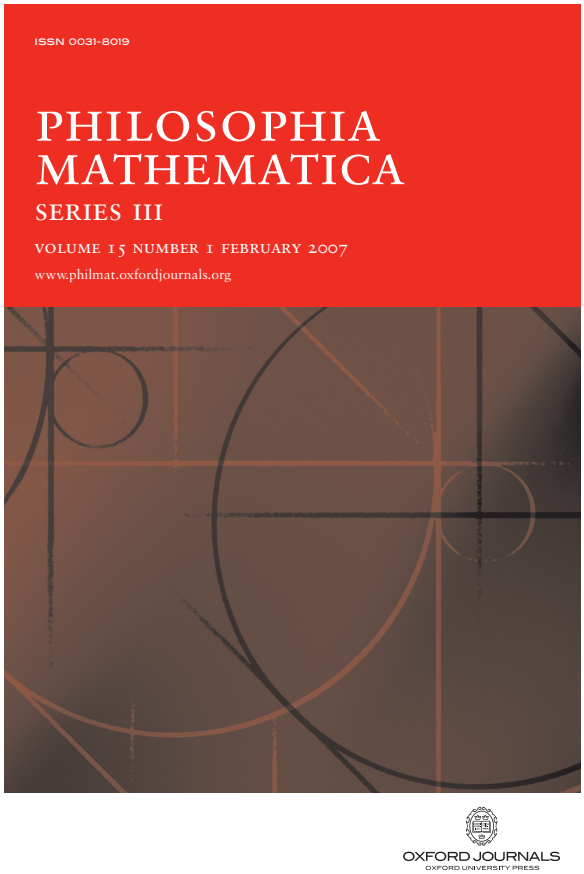

Figure 2: The cover of *PM*

- Save your favorite searches and articles for future reference.

Your online trial subscription to the journal is absolutely FREE, but if you would like information on purchasing a personal subscription to the journal at a discounted price, please visit the Canadian Society for History and Philosophy of Mathematics website at http://www.cshpm.org. (In other words, *PM* is one of the outstanding benefits of CSHPM membership.)

For more information about *PM*, visit its website http://www.philmat.oxfordjournals.org.

Michelle Rawling

Historia Mathematica

Since some members may not be aware that *Historia Mathematica* is an official journal of the CSHPM, we thought we should publicize the fact and encour-

age members both to submit articles to the journal and to subscribe to it. If you are not familiar with the journal, do look at the website, http://www.elsevier.com/wps/locate/hm. There, you

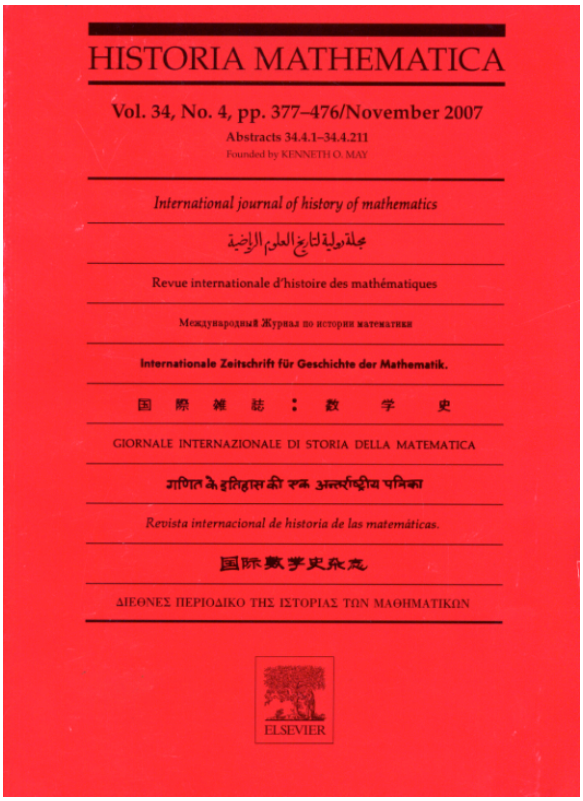

Figure 3: The cover of *HM*

will find information about the publication, including a sample copy and a 'Guide for Authors', which contains information about how to submit an article. As well as research articles on history of mathematics, *HM* publishes essay reviews, book reviews, and abstracts of the current literature in the history of mathematics. If you have any questions about *HM*, please email either of the editors, June Barrow-Green (J.E.Barrow-Green@open.ac.uk) or Benno van Dalen (B.vanDalen@lrz.uni-muenchen.de).

June Barrow-Green and Benno van Dalen

ISAW Established

The Institute for the Study of the Ancient World (ISAW) is a new research and graduate institute at New York University devoted to the investigation of Old World history and culture from the western Mediterranean to China, and between about 3000 B.C. and A.D. 600. It is currently building up a faculty of about eight scholars, across disciplines and cultures. The first regular faculty appointment is Alexander Jones, who will leave the University of Toronto for ISAW this summer. As Professor of the History of the Exact Sciences in Antiquity (with a courtesy appointment to the Courant Institute) he has hopes of building ISAW into a centre where the study of the ancient mathematical sciences and their transmission will flourish.

ISAW's home is a six-storey townhouse in Manhattan's Upper East Side, a stone's throw from the Metropolitan Museum. A visiting scholar program is already active, and the doctoral program is likely to open in the fall of 2009. Information about ISAW and its programs is at http://www.nyu.edu/isaw/.

Alexander Jones

Quotations in Context

Mathematics is written for
mathematicians.–Copernicus

In his preface to *De revolutionibus orbium coelestium* (On the revolutions of the heavenly spheres), Copernicus describes his reasons for hesitating to publish his work. He admits to fearing the ridicule of others, but he concludes that those most likely to heap scorn upon his work are those who are least qualified to judge it. It is at this point in the preface that the phrase "Mathemata mathematicis scribuntur" appears. Unfortunately, as the infamous St. Augustine quotation demonstrates (see the inaugural column in this series in the May 2006 no.38 issue), the Latin here could be translated as referring to subjects no longer included in mathematics, such as astrology.

Charles Glenn Wallis, whose translation of *De revolutionibus* appears in Volume 16 of the "Great Books of the Western World" series, consistently interprets the Latin in terms of mathematics wherever it appears in the preface:

> But if perchance there are certain "idle talkers" who take it upon themselves to pronounce judgment, although wholly ignorant of math-

> ematics, and if by shamelessly distorting the sense of some passage in Holy Writ to suit their purpose, they dare to reprehend and to attack my work; they worry me so little that I shall even scorn their judgments as foolhardy. (...) And so the studious need not be surprised if people like that laugh at us. Mathematics is written for mathematicians.

On the other hand, a more recent translation by Edward Rosen (which is partially available as part of the "Calendars of the Ages" WebExhibits site at http://webexhibits.org/calendars/) consistently interprets the Latin in terms of astronomy instead:

> Perhaps there will be babblers who claim to be judges of astronomy although completely ignorant of the subject and, badly distorting some passage of Scripture to their purpose, will dare to find fault with my undertaking and censure it. I disregard them even to the extent of despising their criticism as unfounded. (...) Hence scholars need not be surprised if any such persons will likewise ridicule me. Astronomy is written for astronomers.

Which of these translations interprets "Mathemata mathematicis scribuntur" correctly? That very issue appears to be resolved in the introduction of Book I. Copernicus begins by arguing that, of all things that can be studied, nothing is more important than the study of the heavens and the movements of the stars. Although their translations differ in phrasing, both Wallis and Rosen agree that Copernicus explicitly recognizes the ambiguity of how this study has been named. For example, from Wallis' translation:

> This art–which some call astronomy, others astrology, and many of the ancients the consummation of mathematics–would be by far the most outstanding. This art which is as it were the head of all the liberal arts and the one most worthy of a free man leans upon nearly all the other branches of mathematics. Arithmetic, geometry, optics, geodesy, mechanics, and whatever others, all offer themselves in its service.

If the study of the stars is viewed as the "consummation of mathematics," arguing about the distinction between "Mathematics is written for mathematicians" and "Astronomy is written for astronomers" appears somewhat unimportant.

Mike Molinsky

Mathematical History Text Survey

During the 2007 fall semester, I was asked by my department to identify which texts in the history of mathematics were most used by courses at other institutions that corresponded to that taught at the University of Wisconsin–Whitewater. I posted my inquiry to the HOMSIGMAA list and am grateful to the thirty-eight individuals who responded. I gave a brief summary of the results to that list and it was suggested that some version might be of interest here.

There are a couple of caveats about the list below. First, the course here is intended for students who may not have had calculus. This can have a limiting effect both on topics covered and level of coverage. It may strike the reader that some of those who offered suggestions of their book of choice either ignored that initial limiting factor or simply did not have a course that corresponded to it. On the other hand, those who might have had preferences that were not directly aimed at the kind of audience that Whitewater provides may not have responded.

At any rate, the most popular text as measured by number of suggestions was Gouvea and Berlinghoff. It was followed by Victor Katz's (either the long or the short version) and David Burton's volumes. These were the only titles suggested that had more than five votaries. The others receiving more than one vote were Eves and Dunham (three each) and Boyer and Suzuki (two each). The Dunham title in question was *Journey through Genius*, and it was frequently mentioned by other respondents as an auxiliary text. Other authors mentioned were Sanderson Smith, Swetz, Stillwell, Pengelley, Fauvel and Gray, Calinger, and Mankiewicz.

Our department still has not made a decision about which text to adopt, committees being the kind of animals that they are. Finding texts that students

will read is not an easy task, as the reading tastes of the instructor probably should not have much to do with it. On the other hand, it may be a while before *History of Mathematics for Dummies* hits the shelves.

Tom Drucker

An Excess of Exponentials

Various mathematical terms are used in everyday discourse, often inaccurately or vaguely from a mathematical point of view. By convention, the phrase "a fraction" in ordinary English is often used to mean a small portion. The intended meaning is clear, but I often mentally ask the author something like, "Isn't seven-eighths just as valid a fraction as one-eighth?"

More bothersome is when a term is employed in a pseudo-mathematical way, perhaps intentionally to mislead or impress, or because the author doesn't really understand the word and is just following a fashion. In recent years I've noticed the word 'exponentially' tossed around in many news articles, somewhat like a condiment used to provide a more 'scientific' flavor, and actually being used as a trendy synonym for "really, really fast".

Fast-growing processes are always "exponential" in these articles, not, for instance, "rapidly increasing" or "showing huge jumps". Of course, there are problems with such vague terms: how rapid is "rapid"? And what is huge to me may be no big deal to you. But using a pseudo-precise description presents its own problems.

Many growth rates we would consider quite fast are still not exponential, such as quadratic, which is proportional to the square of the input. This fact is actually recognized when financial analysts speak of a stock chart going 'parabolic' to denote a steep increase in a stock's price. Even a process increasing as, say, the tenth power of the input does not grow as fast as an exponential one in the long run. Conversely, at an early stage, a tenth-power function may be growing faster than some exponential functions. Then there are functions, such as factorial, that increase even more steeply than exponentially!

Even when a process can be accurately described as exponential, we need more information for understanding. Is something doubling every week? Tripling every year? That is, what is the base and what is the time unit? Also, as the classic story of the wheat grains on a chessboard illustrates, it seems that in the material world exponential processes cannot be sustained indefinitely.

Finally, when it comes to describing extremely slow processes, the usual term is a geological metaphor: glacial. 'Logarithmic' has not caught on among the public; the only time I've seen it used in a general article was in error instead of 'exponential'! The columnist gracefully acknowledged the correction I sent, which had concluded with: But still, it's sort of nice to see the word 'logarithmic' used at all.

Dan Sonnenschein

Web Review: UM Historical Mathematics Collection

The University of Michigan Historical Mathematics Collection (http://quod.lib.umich.edu/u/umhistmath/) is a digital collection of nearly one thousand mathematics books published in either the nineteenth or early twentieth centuries (many presumably acquired by Louis Karpinski). It also, in an interesting overlap with the previous Web Review column, contains one piece of music: a studio version of "Lobachevsky" by Tom Lehrer.

The works in the collection may be viewed in three formats: text, image, or PDF. The plain text is the output of character recognition software, which means that although words and sentences are generally correct, mathematical equations and symbols usually are translated into random strings. The plain text version is provided mainly for the purpose of searching the entire collection or individual works for keywords. The plain text version is the only option that allows you to view the entire work at once; the image option allows you to view one page at a time, while the PDF files each contain 20 or fewer pages from the work in question.

In addition to the digital versions, books from the

collection can be obtained in print format. For most works, links are provided either to Amazon.com (for currently available paperback editions from the Michigan Historical Reprint Series) or to the Scholarly Publishing Office at the University of Michigan.

Here is a short sampling of works available in the collection:

- *A short account of the history of mathematics* and *An essay on Newton's "Principia"* by W. W. Rouse Ball
- *The science absolute of space* by János Bolyai
- *The theory of equations: with an introduction to the theory of binary algebraic forms* by William Burnside and Arthur Panton
- *Vorlesungen über Geschichte der Mathematik* by Moritz Cantor
- *An elementary treatise on determinants* by Charles Dodgson
- *Trigonometry and double algebra* and *On the study and difficulties of mathematics* by Augustus De Morgan
- *A double discovery: The square of the circle* by Rufus Fuller
- *The foundations of geometry* by David Hilbert
- *Mécanique analytique* by Joseph-Louis Lagrange
- *Enumeration of lines of the third order* by Isaac Newton
- *Principia mathematica* by Alfred North Whitehead. and Bertrand Russell

The collection also contains books by Abel, Poincaré, Riemann, Weierstrass, Leibniz, Cayley, Sylvester, Hermite, Galois, Fermat, and many others.

Mike Molinsky

CSHPM Meeting Programme

Please note that abstracts for all of the talks are available on the Society's website (http://www.cshpm.org). Presentations are 20 minutes, with 5 minutes for discussion and 5 minutes of set-up before the next talk. Joint sessions will be held with the Canadian Society for the History of Medicine (CSHM) and the Canadian Society for the History and Philosophy of Science (CSHPS).

Sunday, June 1

9:00 VICE-PRESIDENT'S WELCOME

GENERAL/JOINT (with CSHM) SESSION I

9:30 Duncan Melville (St. Lawrence): "Mathematics at Nippur"
10:00 Liz Burns (Toronto): "Frames of Reference: Ptolemy's *Almagest* and Planetary Hypotheses"
10:30 Ed Cohen (Ottawa): "Chinese and Japanese Calendars"
11:00 Tabitha Marshall (Memorial Univ. of Newfoundland): "Debating Smallpox Inoculation in the Revolutionary Period"
11:30 Roger Stanev (UBC): "HIV/AIDS Activism and the Challenges in Designing and Monitoring Clinically Relevant Trials"

12:00 LUNCH BREAK & CSHPM EXECUTIVE COUNCIL MEETING

GENERAL SESSION IIA

2:00 Lisa Mullins (Cambridge): "Mathematics of God, King and Country: Fontenelle's Eloges at the Academie Royale des Sciences"
2:30 Roger Godard (Royal Military College): "Early Examples of Duality and Applications to Mathematical Programming"
3:00 David Bellhouse (Western Ontario): "De Moivre's Knowledge Community: An Analysis of the Subscription List to the *Miscellanea Analytica*"
3:30 Chris Baltus (SUNY Oswego): "Euler: Continued Fractions, Functions, and Divergent Series"
4:00 Larry D'Antonio (Ramapo): "Carl Jacobi and the Sums of Squares Problem"

GENERAL SESSION IIB

2:00 Audrey Yap (Victoria): "Dedekind's Conception of Set"

2:30 Greg Lavers (Concordia): "Mathematical Ontology"

3:00 Elaine Landry (California - Irvine): "Reconstructing Hilbert to Construct Category-Theoretic Algebraic Structuralism"

3:30 Emerson Doyle (Western Ontario): "An Objection to Intuitionistic Mathematics"

4:00 Nicholas Fillion (Western Ontario): "The Kolmogorov-Gödel Translation of Classical Arithmetic into Intuitionistic Arithmetic"

6:30 "SOCRATES ON TRIAL 2008" (purchase tickets separately)

Monday, June 2

GENERAL SESSION IIIA

9:00 Robert Bradley (Adelphi): "Cauchy's Analysis: A Break with the Past?"

9:30 Josipa Petrunic (Edinburgh): "Textbook or Manifesto? W. K. Clifford's *Elements of Dynamics* (1878) as an Atheistic Refurbishing of P. G. Tait's 'Science of Energy'"

10:00 Dirk Schlimm (McGill): "An Empiricist Approach to Modern Mathematics: Moritz Pasch's Lectures on Projective Geometry"

10:30 Tom Archibald (Simon Fraser): "Research Programmes in Integral Equations 1900-1910: Local and Universal Knowledge in Mathematics"

GENERAL SESSION IIIB

9:00 Robert Thomas (Manitoba): "Doing Mathematics is Not Playing a Game"

9:30 Corey Mulvihill (Waterloo): "Logical Necessity and Constructive Semantics in Wittgenstein's *Tractatus*"

10:00 James Overton (Western Ontario): "Higher Isomorphism: Philosophical Issues in the Definition of Weak n-Categories"

10:30 Jonathan Seldin (Lethbridge): "Curry's Opinion of Karl Popper"

11:00 CSHPM ANNUAL GENERAL MEETING

12:00 LUNCH BREAK

SPECIAL SESSION ON TRIGONOMETRY AND ITS APPLICATIONS

2:00 THE KENNETH O. MAY LECTURE, by Glen Van Brummelen (Quest): "In Search of Vanishing Subjects: The Study of Trigonometry Before 'Trigonometry'"

3:00 Janet Beery (Redlands): "'Ad Calculum Sinuum': Thomas Harriot's Sine Table Interpolation Formulas"

3:30 Joel Silverberg (Roger Williams): "Napier's Rules of Circular Parts"

4:00 Bruce Burdick (Roger Williams): "Spherical Trigonometry in 17th Century Mexico: Enrico Martinez and Carlos de Siguenza y Gongoru"

5:00-7:00 CFHSS PRESIDENT'S RECEPTION

6:30 "SOCRATES ON TRIAL 2008" (purchase tickets separately)

Tuesday, June 3

GENERAL/JOINT (with CSHPS, on Infinitesimals) SESSION IV

9:00 David Orenstein (Toronto District School Board): "An 18th Century Conics Course Manuscript From the Seminaire de Quebec"

9:30 Andrew Perry (Springfield): "The Explosion of American Mathematics Textbooks, 1830-1850"

10:00 Amy Shell-Gellasch (Pacific Lutheran): "Pierre Fermat's Integration Techniques"

10:30 Richard Arthur (McMaster): "Leibniz's Archimedean Infinitesimals"

11:00 Tom Drucker (Wisconsin - Whitewater): "Finding Room for Infinitesimals"

11:30 John Bell (Western Ontario): "Infinitesimals in Synthetic Differential Geometry"

12:00 LUNCH BREAK

GENERAL SESSION V

2:00 Janet Martin-Neilsen (Toronto): "The Mathematization of Natural Language Syntax: 1957-1968"

2:30 Miriam Lipschutz-Yevick (Rutgers): "Dwight Bollinger's Take on Speech Intonation: Syntax vs. Affect"

3:00 Marina Vulis (New Haven): "Luca Pacioli's Contributions to Accounting"

3:30 Lane Olson (Alberta - Camrose): "Personal Background to the Riemann Hypothesis"

6:30 "SOCRATES ON TRIAL 2008" (purchase tickets separately)

Book Reviews

A Warning to the Curious

The stream of textbooks in the history of mathematics has not become a flood, and so many interested in the subject may be inclined to purchase anything that comes out with that title. That is especially true when a volume comes out with the warm endorsement of Fernando Gouvea, editor of the MAA's newsmagazine, *Focus*. However, it is probably worth exercising a little caution in approaching a volume published this year (2008) with the title *History of Mathematics: A Supplement*.

The author of the book is Craig Smorynski, and he has made contributions to logic, and to the history and philosophy of mathematics over the decades. More than thirty years after the book's appearance, reference may still profitably be made to his article on the incompleteness theorems in the *Handbook of Mathematical Logic*. He has an article on "The Development of Self-Reference" in my volume *Perspectives on the History of Mathematical Logic*. He was one of the translators of the English-language version of a major biography of Gerhard Gentzen by Menzler-Trott.

The publisher of the book is Springer Verlag, whose contributions to many branches of the history of mathematics are legion and illuminating. Readers of this newsletter may be especially familiar with *Mathematics and the Historian's Craft*, since that is a collection of Kenneth O. May lectures given to the CSHPM in years past.

Smorynski's book arises out of his experiences in teaching history of mathematics, and there is plenty of lively discussion of topics often overlooked or neglected in the standard syllabus. The work overall, however, is so idiosyncratic that the subtitle perhaps deserves to be built into the title. The author is happy to take issue with standard sources on the subjects he discusses, and it is salutary to point out to the student that there should be a limit to the reliance placed on some published sources. Still, one can argue that there may be a little more substance to some of those sources than Smorynski is willing to grant.

If students can be encouraged to read something else in the history of mathematics by virtue of Smorynski's text, that would be part of its mission. With the title given the book by the publisher, a reader might expect something cautious and judicious. That is not Smorynski's style elsewhere, and it is not his approach here. Some may remember that the title of the editors' contribution to *History and Philosophy of Modern Mathematics* (edited by William Aspray and Philip Kitcher and published in 1988) is "An Opinionated Introduction." If that same adjective had been built into the title of Smorynski's book, it would perhaps have given prospective readers and purchasers more guidance.

Tom Drucker

A Biography of Maria Agnesi

Antonella Cupillari, ed., *A Biography of Maria Gaetana Agnesi, an Eighteenth-Century Woman Mathematician: With Translations of Some of Her Work from Italian into English*. Lewiston, NY: The Edwin Mellen Press, 2007. vii + 322 pp. $119.95.

When I teach the history of science, I work women and minorities into the overall narrative as much as possible. I still end up stopping during the Scientific Revolution and Enlightenment unit to discuss with students the reality that, until the late twentieth century, the presence of women in the history

of science was "exception"al. Not only were women participants whose names have endured few and far between, but those women who produced novel ideas in science and mathematics generally had to be more proficient than their male contemporaries in order to be taken halfway seriously.

Even in this framework, Maria Agnesi (1718-1799) is difficult to analyze. The general outlines of her life story are well-known for their unique trajectory: her father educated her so that her performances would pave his way into Milan society; she prepared a textbook, *Instituzioni Analitiche* (1748), that compiled and elucidated the current state of knowledge of infinitesimal calculus; she refused public recognition in order to serve the poor and downtrodden. Specific details, on the other hand, have been far more difficult to ascertain, and the woman behind the myth remains a mystery.

Cupillari, a native Italian speaker and editor of the CSHPM *Proceedings*, has therefore done English readers a great service with this volume. She has translated the earliest biography of Agnesi, Antonio Frisi's 1799 "Elogio Storico di Donna Maria Gaetana Agnesi." Since she worked from the 1965 revised (but privately distributed) edition by Arnaldo and Giuseppina Masotti, she has also provided the Masottis' end notes. Additionally, she has written 60 pages of her own annotations, going beyond the Masottis' lists of further reading and archival material to explain Agnesi's familial and cultural context. Finally, Cupillari has newly translated the introductory material and a few key sections of *Instituzioni*. These selections indicate that John Colson's 1801 translation of the full work, which may be downloaded from Googlebooks, omits considerable portions of Agnesi's prose.

I learned many things from these materials, such as the existence of 25 volumes of Agnesi manuscripts, including several courses in natural philosophy, which are housed in the Biblioteca Ambrosiana in Milan. The book describes Agnesi's interactions with a variety of Italian mathematicians who are omitted by most history of mathematics textbooks but whose names appear frequently in my own research into British mathematical reviewers. Cupillari gently but firmly corrects Frisi's tendency to elevate Agnesi's achievements beyond the factual record. For instance, she distinguishes between the noble congratulators who actually read Instituzioni and those who acknowledged receipt of the text as a courtesy.

I would have enjoyed the accounts even further had the volume been more user-friendly. Despite the high sales price, Mellen does not provide professional copyediting. There are numerous typographical errors, mainly words undetected by word processing spellcheckers that sometimes obscure the translations. The two sets of end notes are printed separately, requiring multiple bookmarks and very attentive reading. Some of Cupillari's notes refer to Frisi's eloge, some to the Masottis' comments, and some to both works. It is almost easier to dip into portions of the book than to read the entire volume at once.

This book is a useful guide for professional scholars and upper-level students who are undertaking research on the history of women in mathematics. It also nicely complements the recent biography by Massimo Mazzotti, *The World of Maria Gaetana Agnesi, Mathematician of God* (Baltimore: The Johns Hopkins University Press, 2007; ix-xx + 217 pp.; $49.95). Mazzotti's methodological statement is convoluted, but he settles down to deconstruct the complex interplay between Church, natural philosophy, and gender during the rise and fall of the Catholic Enlightenment. We are fortunate indeed to have these two Italians skilled in the English language unearthing the ascertainable facts of Agnesi's life and work.

Amy Ackerberg-Hastings

2007 Financial Statements

The following financial statements cover the period 1/1/2007 through 12/31/2007.

	$ Can.
Income	
dues/subscr.	7088.49
Meeting Fees	4435.02
SSHRC travel grant	3863.00
TOTAL	15386.51
Expenses	
CFHSS dues (2006/7)	3880.00
Philosophia Mathematica	1381.68
Historia Mathematica	2080.01
Bulletin/Proc.	1315.95
BSHM dues	650.72
Postage etc.	69.41
Meeting expenses	3319.33
May speaker	1145.40
Travel claims	3266.01
Bank charges	55.17
CUMC meeting grant	300.00
TOTAL	17463.68
NET	(2077.17)
Balance	27430.90
TD Mortgage Corp.	3743.32
TOTAL	31174.22

Comments:

Because the Society has 2 accounts, one in US dollars, we keep two different accounting systems. At the request of the editors, we have combined the numbers for these accounts. The numbers given are in Canadian dollars. A conversion factor of 1.01 has been used to convert American dollars into Canadian ones.

There was an overall deficit this year for the first time since 2002. Several factors contributed to this. In 2007, we paid our society dues to CFHSS for both 2006 and 2007–which accounts for most of the deficit by itself. The costs for organizing the joint meeting with BSHM at Concordia slightly exceeded registration receipts. Although the SSHRC travel grant was reduced by $271.00 in 2007, travel claims were $1054.33 less than in 2006. Reciprocal membership fees were paid to BSHM in 2007, but there is no record that such a payment was made in 2006. The costs of printing our Proceedings and Bulletin were $371.68 higher in 2007 than in 2006. On the income side, no royalties were received from Springer for the May Lectures book in 2007.

Amounts for member dues and subscriptions and for meeting fees are approximations, as records were not retained for distinguishing between monies paid at the AGM in Concordia for membership renewals and monies paid in Concordia for meeting registration. It should also be noted that we do not usually have meeting fees listed in our financial statements, as the CFHSS Congress and CMS handle meeting arrangements when we meet under their umbrellas. It is only when we meet with the BSHM that we must do all of the planning and collect the associated costs.

The assets section reflects that, as directed by the Executive Council, $8000 in Canadian funds was transferred to the US bank account (net 7479.43 in $US, given exchange rates of last year). (See the November 2007, no. 41 Bulletin.)

Nathan Sidoli

CMS Winter Meeting

The CMS winter meeting in London, Ontario, included a joint History and Philosophy of Mathematics session organized by CSHPM's Tom Archibald and Deborah Kent. Eleven speakers from Canada and the U.S. delivered talks on topics ranging from ancient exact sciences, to nineteenth century ontology, to mathematical pluralism. Despite the awkward location in a hotel dining room, the sessions generated good discussion and participants enjoyed lively collegiality.

John Bell (Western) opened the first session with "On the Indecomposibility of the Continuum," tracing the development of this idea forward from Aristotle's work. In "Greek Geometers on Geometry," Zoë Misiewicz (Toronto) presented thesis work exploring the motivations, attitudes, and self-understanding of Greek mathematicians as expressed in the introductions to their mathematical texts. Alexander Jones (Toronto) spoke about "The Crime of Vettius Valens," investigating the role of mathematical methods in Greek astrology and commenting on the manipulation of data to ensure its agreement with existing theories. With "Ptolemy's Mathematical Realism," Jackie Feke (Toronto) explored Ptolemy's math-

ematical correlation between music, human souls, and heavenly bodies as proof that Ptolemy believed mathematical entities really do exist. Glen van Brummelen (Quest) concluded the morning session with "A Different Sort of Sacred Geometry: The Medieval Analemma for Finding the Direction of Mecca," focusing on the analemma technique of reducing a problem from three dimensions to two by a sequence of coordinate transformations on the celestial sphere.

The afternoon session began with "Mathematicians in Search of War Work, 1917-1918." Deborah Kent (Hillsdale) discussed ways the mobilization to enter World War I impacted the mathematical community in the United States. Then, in "Formulas, Concepts, and the 'Jacobi Limit' in the 19th Century," Tom Archibald (Simon Fraser) considered the distinctions between formulas and concepts in the context of differing views about the ontological status of mathematical objects.

The second morning, James Brown (Toronto) started with "Mathematical Explanation," arguing that mathematics, in some sense, explains nothing in the natural world, although mathematics is often essential for the kind of explanation that leads to understanding. David DeVidi (Waterloo) followed with "Pluralisms, Mathematical and Logical," in which he described the most plausible approaches to workable mathematical pluralism. In "Your Name Here: The Scandalous Evolution of Bryce's Commercial Arithmetic," Robert Dawson (St. Mary's) examined the checkered publication history of Canada's first business mathematics textbook and highlighted difficulties intrinsic to studying the history of a book. David Bellhouse (Western) closed the session with "Eighteenth Century English Life Annuities: Calculations and Applications."

These sessions are planned to continue each year at the Winter CMS meeting; contributed papers with a genuine research component are certainly welcome, as is graduate student work. Next year's meeting is in Ottawa. Please contact Tom Archibald (tarchi@sfu.ca) if you are interested. Note that available slots are limited.

Deborah Kent

AMS/NZMS Joint Meeting

Several Society members helped show the flag of North American history of mathematics at a conference in beautiful Wellington, New Zealand, 12-15 December 2007. The occasion was the first-ever joint meeting of the American Mathematical Society and its Kiwi counterpart; the history session was co-organized by the indefatigable Jim Tattersall, a former President of the CSHPM.

Society members who gave talks included the following: Bruce Burdick, "Mathematical Problems from the *Maine Farmer's Almanac*"; Larry D'Antonio, "Leonard Euler and the dastardly John Robison"; Hardy Grant, "Episodes from the career of the Riemann Hypothesis"; John Hannah, "Limits of solvability: unsolvable problems in Fibonacci's *Liber Abbaci*"; Kim Plofker, "Mathematics and observation in Indian astronomical parameters"; Jim Tattersall, "Mathematical Contributions to *The Educational Times* from Australia and New Zealand"; and Paul Wolfson, "Algebraic invariant theory and characteristic classes".

The visitors from above the equator enjoyed greatly the charms of Wellington (whose hills reminded people of San Francisco) and the gracious hospitality of New Zealand's math-history community. One highlight of sightseeing was a nature sanctuary just ten minutes by car from downtown; the distinguishing feature is a fence built round its entire perimeter (about 8.5 kilometres) in order to keep out all mammals, which would prey disastrously on the bird species–which, in former centuries and in the absence of mammals, lost the ability to fly.

Hardy Grant

AGM of CFHSS

The Annual General Meeting of the Canadian Federation of Humanities and the Social Sciences took place in Ottawa on 24-25 November 2007. Members of CSHPM might be interested in the following:

- **Electronic Journals.** There were several discussions of this topic. On November 24, Frits Pan-

nekoek, president of Athabasca University in Alberta ("Canada's Open University") gave an address that focused on books. He stated that publishing companies were being attracted. As for papers, they are being peer-reviewed and there is a company that will save them for later generations. There is a problem with different nations (mainly the USA) passing different copyright laws. On November 25, a panel was held. There are several universities working together (called SYNERGY); at present there are 88 electronic journals. As libraries try to cope with rising costs, this seems to be the way out. The software in Canada is called "Open Journal System" (OJS), and you may hear more about it.

- **Upcoming Meetings.** In 2008, CFHSS will meet at the University of British Columbia in Vancouver; in 2009, at Carleton University in Ottawa; in 2010, at Concordia University in Montréal; in 2011, at New Brunswick University in St. Thomas-Fredericton; in 2012, at the University of Waterloo and Laurier University.

- **Time Shift.** After 2008, the AGM of the CFHSS will probably be held in March.

Ed also enjoyed a conversation with Richard Arthur (McMaster University), president of the CSHPS. Arthur is interested in continuing the relationship we have been developing over the past several years as well as in reciprocities with the Canadian Science and Technology Historical Association and the Canadian Society for the History of Medicine. (See our 2008 Programme in this issue for fruits of this cooperation.) It is still not clear why so many more CSHPM members join CSHPS than CSHPS members join CSHPM. Ed suggested that CSHPS could provide additional tangible benefits for cross-membership. Nonetheless, several of "our" folks serve on CSHPS's advisory board and committees. (See http://www.yorku.ca/cshps1/.)

Ed Cohen

Mathematical Logic and Geographical Identifiers

Ian Chiswell and Wilfrid Hodges published *Mathematical Logic*, a volume in the series of *Oxford Texts in Logic*, in 2007. In the course of the book, they supplied pictures, names, geographical locations, and dates for a number of the individuals who contributed to that field. (Each picture is also accompanied by a sentence describing the individual's work.) Here is a list, sorted into chronological order:

Name	Location	Dates
Euclid	Egypt	c. 300 B.C.
Al-Khwarizmi	Baghdad	c. 780-850
Antoine Arnauld	France	1612-1694
G. W. Leibniz	Germany	1646-1716
Bernard Bolzano	Bohemia	1781-1848
George Peacock	England	1791-1858
Augustus De Morgan	London	1806-1871
Leopold Kronecker	Germany	1823-1891
Richard Dedekind	Germany	1831-1916
Charles S. Peirce	USA	1839-1914
Georg Cantor	Germany	1845-1918
Gottlob Frege	Germany	1848-1925
Giuseppe Peano	Italy	1858-1932
David Hilbert	Germany	1862-1943
Bertrand Russell	England	1872-1970
Jan Lukasiewicz	Poland	1878-1956
Emil Post	Poland	1897-1954
Alfred Tarski	Poland/USA	1901-1983
Alonzo Church	USA	1903-1995
Kurt Gödel	Austria/USA	1906-1978
Gerhard Gentzen	Germany	1909-1945
Antolii Mal'tsev	Russia	1909-1967
Helena Rasiowa	Poland	1917-1994
Jaakko Hintikka	Finland/USA	living
Yuri Mativasevich	Russia	living

What struck me about the list (which is certainly not a problem exclusive to this text) is the extent to which the geographic identifier is an approximation for the history of the individual's life. The birth and death dates supply something by way of points between which they worked, but many of the geographical identifiers used here were not in existence

as political entities during the years concerned. The use of 'Bohemia' for Bolzano seemed to contrast with 'Austria and USA' for Gödel, who was born in Brno.

In response to a query, Prof. Hodges wrote, 'The places named were my best guesses about where the people themselves would have said they belonged... In the case of Post, whose family moved to the USA when he was young, there is anecdotal evidence that he boasted to Tarski that he was born in Bialystok– but he certainly didn't work there.

'For parts of the old Holy Roman Empire the answers might be quite complicated... Also I can imagine that in his later years Cantor might have preferred to describe himself as a member of the international community of mathematicians.'

It is an interesting question whether there is a particularly useful way to provide a geographical determiner for mathematicians of the past and present. Avoiding presentism is difficult, especially when writing for current students. It is reassuring to see that mathematics can be presented in such a way that the results are given a local habitation and a name, even if there can be arguments over both.

Tom Drucker

New Members

Congratulations to the following new members who have joined the Society since our last Bulletin. We look forward to your contributions.

Timothy Biehler
Finger Lakes Community College
Canandaigua, NY
USA

John Bukowski
Juniata College
Huntingdon, PA
USA

Emerson Doyle
University of Western Ontario
London, ON
Canada

Brian Hepburn
Vancouver, BC
Canada

Lisa Mullins
Cambridge
UK

Laura Turner
Denmark

From the Editor

"Producers" and "consumers" is another theme I find useful in reflecting on the roles women have played in the history of mathematics and science. This also became a motif that ran through the preparation of this issue. Several of you will produce new knowledge in Vancouver, where you can also enjoy the production of a new drama. Our official journals both remind you that they need you to produce and consume articles to continue. Please take an active role in the Society by voting for Councillors as instructed on the insert. You produced items in abundance for this issue, for which I am grateful. Our layout editor, Eisso Atzema, will have well earned a stiff drink by the time you have this in your hands.

It is a pleasure to organize such a volume and variety of contributions, but you can assist in my efforts to ensure that the size of the *Bulletin* is sustainable and that the quality of this publication continues to improve. Please keep in mind that we are a society for history and philosophy of mathematics, so provide the historical or philosophical context for your material. As I tell my students, even short essays ought to have a beginning, middle, and end. Where appropriate, suggest an action point. (Andy Rooney of "60 Minutes" has the market cornered on general curmudgeonliness.) Reports need to be as close to technically perfect and ready for distribution to the full membership as possible. I am not the Society's auditor.

I would prefer to maintain our current "just in time" production philosophy, which is designed to maximize convenience for contributors. However, changes in my personal responsibilities may make it necessary to move up future submission deadlines by at

least two weeks (i.e., another production project that I hope to have completed successfully by our next issue). Please continue to send news of publications, professional and personal milestones, meetings, and the like. As you can see in the archives available at http://www.cshpm.org, we have also traditionally run short research articles, feature pieces, and ongoing columns. Photos and illustrations are welcome. Materials should be sent as soon as possible, but no later than 1 October 2008.

Many thanks to those of you who are already keeping the *Bulletin* in mind throughout the year. Thanks also to Pat Allaire for again coordinating the production and mailing of this issue, despite her own impending professional transition.

Amy Ackerberg-Hastings

About the Bulletin

The *Bulletin* is published each May and November, and is co-edited by Amy Ackerberg-Hastings (aackerbe@verizon.net) and Eisso Atzema (atzema@math.umaine.edu). Material without a byline or other attribution has been written by the editors. Les pages sont chaleureusement ouvertes aux textes soumis en français. Comment and suggestions are welcome, and can be directed to either of the editors; submissions should be sent to Amy Ackerberg-Hastings and Eisso Atzema at the above e-mail address, or by snail mail to Amy Ackerberg-Hastings, 5908 Halsey Road, Rockville, MD 20851.