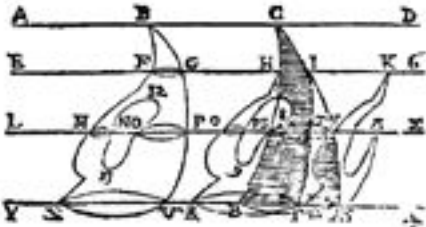


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Canadian Society for History
and Philosophy of Mathematics

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: **Robert Bradley**, Adelphi University, Garden City, NY 11530, USA, bradley@adelphi.edu

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The Society's Web Page (www.chspm.org) is maintained by **Robert Bradley**, Adelphi University, Garden City, NY 11530, USA

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@iusb.edu

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

Address From the President at Annual Meeting

It is my great pleasure to welcome you to the 2005 Annual Meeting of the Canadian Society for History and Philosophy of Science (CSHPM), graciously hosted by the University of Waterloo.

As you may know, this is our second joint meeting with the Canadian Mathematical Society (CMS), following the very successful Math 2000 meeting, held five years ago at McMaster University. The CSHPM looks forward to participating in what we hope will be a continuing sequence of joint meetings with other Canadian mathematical societies, to take place on a regular basis for the foreseeable future. The CSHPM is particularly grateful to Len Berggren and Tom Archibald, both past presidents of the Society, for fostering close and collegial ties between the CSHPM and the CMS.

This is the thirty-second annual meeting of the CSHPM. The Society was founded in 1973, largely through the efforts of the late Kenneth O. May, and held its first annual meeting in Toronto at the 1974 gathering of the Learned Societies. Following Ken's death in 1977, the Society established an annual invited lecture in his honor, delivered at the annual meeting as part of the Special Session. It is with great pleasure then, that the Society celebrates the publication of *Mathematics and the Historian's Craft: The Kenneth O. May Lectures*, published by Springer and edited by Michael Kinyon, former editor of the CSHPM Proceedings, and past-president Glen Van Brummelen. This volume collects together a dozen of the finest papers presented by invited speakers at CSHPM meetings. Please join us for the official launch of this book at the Book Series Reception, on Saturday June 4 at 19:00 in the Centre for International Governance Innovation.

The CSHPM Special Session for 2005 is titled *The History of Mathematics from Medieval Islam to Renaissance Europe*. The plenary talk for this session will be delivered by Len Berggren on Monday, June 6, at 14:45. Other talks in the session will be given on Monday during the late morning and afternoon. The CSHPM General Session is enti-

tled History and Philosophy of Mathematics, and will take place on Saturday, Sunday and Monday morning, with parallel sessions on weekend afternoons. I am grateful to Glen Van Brummelen and Duncan Melville for their efforts in organising these CSHPM session.

The CSHPM wishes to express its gratitude to the Meeting Committee, and especially to Alexandru Nica, the Meeting Director. We are also grateful to the Local Arrangements Committee. Finally we would like to thank Graham Wright, the Executive Director of the CMS, and to Gertrud Jeewanjee, the Meetings Director of the CMS.

Rob Bradley

May Lectures in print

Those of us who have had the chance to attend one or more of our annual meetings are fully aware of the fascinating, diverse, and impressive scholarship that these meetings continue to produce. We already have the great privilege of enjoying these talks again through our annual *Proceedings* (for which we owe our undying thanks to our current editor, Antonella Cupillari), but since the *Proceedings* are only distributed internally to our members, we are in possession of hidden scholarly treasures. Late this month, some of this treasure will be brought to light with the publication of *Mathematics and the Historian's Craft: The Kenneth O. May Lectures*, co-edited by Glen Van Brummelen and Michael Kinyon, by Springer Verlag.

We decided to begin the task of unveiling CSHPM scholarship to the world through the annual keynote addresses, since they sharply represent our view of what makes for important historical mathematical research, yet are intended to reach a broader audience. The keynotes were originally named the Kenneth O. May Lectures, and were recently rechristened as such at our 2002 annual meeting in his honour. Since Ken May founded both the CSHPM and the journal *Historia Mathematica*, we hope that this volume will be a fitting tribute and return gift to a man whose vision for the discipline continues to shape our scholarship today. We do hope,

however, that this book is just the beginning, and that more CSHPM talks will see the published light of day in future.

The book will be released at the publishers' reception before the banquet at the joint CSHPM/Canadian Mathematical Society meetings on June 4 in Waterloo, ON again fitting, since the book is to appear in Springer's *Canadian Mathematical Society Books in Mathematics Series*.

An order form for this volume is enclosed. We urge you especially to consider having your university library to order a copy, in addition to a copy for your own shelf. We have arranged a 20% discount for CSHPM members if you use the form included with this Bulletin.

Glen van Brummelen

K.V. Sarma (191?-2005)

I'm sorry to say that the historian of Indian mathematics K. V. Sarma of Chennai passed away on 13 January. As you probably know, Prof. Sarma produced editions of dozens of Sanskrit mathematical and astronomical texts, particularly those of the Kerala school, as well as many secondary studies. His most recent book, I believe, was *Science Texts in Sanskrit in Manuscripts Repositories of Kerala and Tamilnadu*, published in 2003 (when, as far as I know, Prof. Sarma was at least in his nineties!).

A group of Prof. Sarma's colleagues in Chennai, including K. Ramasubramaniam, M. D. Srinivas and M. S. Sriram, are continuing his work on the texts of the Kerala school; English translations of the *Yuktibhasa* of Jyesthadeva and the *Tantrasangraha* of Nilakantha are projected for publication within the coming year. They and all other students of the history of Indian mathematics know that Prof. Sarma will be sorely missed.

Kim Plofker

Announcements I

1. Alain Herreman and Hélène Gispert are compiling information about theses, completed and in progress, in the history of mathematics and related fields. If you did a thesis in the area, and have not already communicated the title, date, and institution to them, please drop them a note.¹ To use the archive in which this will reside, look at <http://theuth.univ-rennes1.fr>, menu “Thèses”.

2. The following message comes from Marc Barbut of the EHESS, Paris: “We inform you of the launching of a new electronic journal devoted to history of probability and statistics. This journal is published by the *Séminaire d’histoire du calcul des probabilités et de la statistique* (École des hautes études en sciences sociales E.H.E.S.S. Paris) and by the *Laboratoire de probabilités et modélisation aléatoire* (University Paris VI). This on-line journal is free. There should be two issues each year. The title is : *Electronic Journal for History of Probability and Statistics*. It has a double vocation. It publishes original papers on history of both domains and also older documents of exceptional interest, and makes them available as downloadable files. This can be done freely by anyone interested without previous registration or subscription. There is generally two numbers of the journal each year. Some of them may be centered on a precise topic. The journal has an international Editorial Board. Each paper is submitted to referees chosen by the Editorial Board. The major aim of an electronic journal is a quick publication. Papers concerning historical works in progress are therefore specially welcome. The authors are naturally free to make further developments for ulterior publication. The journal’s main languages are French and English: French and English abstracts are required. A paper in any other European language may be considered for publication, provided it is preceded by French and English detailed abstracts.

We invite you to consult the site of the Journal and the first number at the following address: www.jehps.net”

¹Use either alain.herreman@univ-rennes1.fr or helene.gispert@ghdso.u-psud.fr.

Tom Archibald

Math Fest

There are three events of the math history nature scheduled for Math Fest this August.

The HOM SIG is sponsoring an original play entitled “Count Her In!”

The play involves several high school, college and graduate students portraying various historical women of mathematics. This vent is scheduled for Friday evening, Aug 5th, at 5:00.

Minicourse #5: “Geometry with History for Teaching Teachers” is being run by husband and wife team and HOM members David Henderson and Daina Taimina. This minicourse runs Friday afternoon and Saturday evening. Advance registration is required for this.

Fred Rickey and Victor Katz will also be conducting a revival of their always popular Teaching on Course on the History of Mathematics minicourse. This event is scheduled for Thursday and Friday afternoon. Again, pre-registration is required.

Amy Shell-Gellash

Kim’s Travel Log

Kim Plofker gave the Bulletin permission to reprint the following entry of her Indian travel journal. The original entry and more entries can be found at <http://www.math.union.edu/~dpvc/personal/Kim-at-Large>.

Sick Books

Sorry, no improper revelations, not even a discussion of why you see *Mein Kampf* everywhere in Indian bookstores. Rather, this has to do with my work here cataloguing collections of Sanskrit manuscripts on mathematics and astronomy. At present it’s led me to a Jain institute here in Jaipur

that has not only a very interesting manuscript library, but also a new “Pandulipi Samrakshan Kendra”, or Manuscript Conservation Center. You see, the problem with Sanskrit manuscripts is that they’re not making them anymore. A few scribes may still turn out fancy handmade versions of the Ramayana and other well-known works as expensive curios or devotional materials, but the millennia-long tradition of hand-writing new copies of your old copies of copies of copies of great-great-great...great-grand-copies of the original texts has pretty much been killed by the advent of the printing press.

There are still millions of Sanskrit manuscripts in India, in government archives and libraries, other institutions, and private collections, so we’re not going to run out of them right this minute. Unfortunately, in India there are also termites, silverfish, bookworms, cockroaches, rats, mice, fungus, atmospheric acids, a tropical/subtropical climate with temperature and humidity extremes, and economic necessities, so we’re surely going to run out of manuscripts pretty soon if we don’t do something about it. Old handmade papers and inks are surprisingly robust, but they don’t hold up more than a century or two without ongoing care, and the manuscripts made with commercially produced materials from the past couple centuries are decaying even faster. Few people even in India know the proper techniques for conserving, repairing, and storing Indian manuscripts to minimize the decay, and of course outside of India (where a surprising number of Indian manuscripts have wound up), the necessary knowledge is even scarcer.

Fortunately, places like the Institute’s Manuscript Conservation Center are to some extent holding back the tide of book death by conserving manuscripts from their own collections and those of other owners. And even better, from my point of view, they’re generously allowing me and one of the American students here to take a conservation training course with the Center’s staff. So in the mornings I read and catalogue manuscripts, and in the afternoons I go across the courtyard and learn how to prolong manuscripts’ lives so other people can read them in years to come.

The introductory part, when you find out what really happens to most manuscripts and what the different things are that they can suffer from, is pretty appalling: photos of heaps of pages lying exposed on floors, “Before” pictures of the pre-conservation condition of rescued books, etc. (Fungus, termites, and acids in the air are apparently the deadliest enemies; termites in particular just make pages, volumes, shelves of books vanish into nothingness. Yikes!) But learning how much can actually be done to save and restore the manuscripts, and how practically feasible most of it is to do, is very encouraging. Indian conservators seem to have been especially ingenious in figuring out conservation strategies that don’t start out by assuming that everybody’s got a state-of-the-art climate-controlled facility and access to expensive materials. It’s really often possible to save a book’s life with nothing more than a little common-sense training and some basic equipment that you can mostly pick up at a drugstore.

You certainly see the books with new eyes, too, especially coming in as a researcher who’s always treated manuscripts as precious rarities that you need to handle as delicately (and as little) as possible. It’s tough love over on the conservation side, I’ll tell you! We’re practicing our cleaning and repair techniques on some manuscripts that I’ve got temporary custody of, and you should see me nonchalantly dunking those three-hundred-year-old pages into the lime-water cleaning/deacidifying solution and swishing them around with the brush. (For a real laugh, you should see my nonchalance vanish when the ink starts to run—*despite* having been successfully tested for non-solubility beforehand—and I frantically snatch the paper out of the water and try to stop the bleeding.)

The most fun part of the work, I’d have to say, is repairing; that’s when you get a pot of homemade starch paste (better for the paper than chemical glues) and scraps of handmade paper (longer sturdier fibers than commercial papers) and put Humpty Dumpty together again. It’s remarkable how well old paper generally accepts a “graft” of new paper, if it’s properly applied. But I shudder to think how I used to believe I was “fixing” torn or loose pages of my books by putting cellophane

tape on them! I now know that's about the worst thing you can do to a piece of paper, and I swear I'll never do it again.

Kim Plofker (on April 27, 2004)

2005 HOMSIGMAA Student Paper Contest

I am pleased to announce the results of the 2005 HOM SIGMAA Student Paper contest in the History of Mathematics. Our winning paper is "Eratosthenes and the Mystery of the Stades" by Newlyn Walkup from the University of Missouri - Kansas City. Second place goes to James Collingwood from Drake University with his paper "Rigor in Analysis: From Newton to Cauchy."

We had many worthwhile and interesting submissions. Please encourage your students and colleagues to participate in next year's contest. For those of you who had students participate or helped out with judging, thank you!

Amy Shell-Gellasch

Announcements II

Alexander Jones received a Guggenheim fellowship for the year ahead. During 2005/2006 he plans to finish the book that he is currently working on, provisionally entitled Ptolemy's Sciences. This will be the a general study of all the surviving writings of Claudius Ptolemy, the most important writer on the physical sciences of the Roman Empire. His purpose is to make the fundamental principles and methods of Ptolemy's work in astronomy, harmonic theory, optics, astrology, and cartography intelligible to nonspecialized readers, and to bring out the unity and development of Ptolemy's scientific method. He will be a Member of the School of Historical Studies at the Institute for Advanced Study, Princeton, during the year.

C'est la fête à Stevin en ce moment : on trouve l'intégralité de l'édition de 1634 (Girard) de ses

Oeuvres mathématiques, mise en ligne par Bernard Maitte à Lille sur le site Pôlib;² et toujours l'édition des *Principal Works* (des années 50) sur le site de la bibliothèque de l'Université de Delft.³

Frédéric Métin

Novembertagung

Since the co-editor of this *Bulletin* has fond memories of his involvement in the earliest Novembertagung Meetings (he may even have made up the name!), here is the Call for Papers of the 16th Novembertagung on the History of Mathematics:

The 16th Novembertagung on the History of Mathematics will take place on Friday, Saturday, and Sunday, the 4th, 5th, and 6th of November 2005 in Paris, at the École Normale Supérieure, 45 rue d'Ulm.

The Novembertagung is an annual international event, started in 1990, which brings together young philosophers and historians of mathematics. The conference provides an opportunity to give a presentation in a relaxed and friendly atmosphere and is open to all young researchers. Students who are just starting their projects are very welcome.

Information about the organisation of this conference will be regularly updated on the site: <http://irist.u-strasbg.fr/nov2005/>

Presentations are limited to 20 minutes so that there is enough time left for discussion. A blackboard, an overhead projector and a beamer will be available.

The deadline for proposals is 31st July 2005. Initially, it is not necessary to send an abstract. A title (even if it is provisional) will be enough.

To send your proposals or make an enquiry, please contact:

Frédéric Brechenmacher: flaibbrec1@noos.fr
Amirouche Moktefi: amirouche.moktefi@gersulp.u-

²voir: <http://polib.poleuniv-lille-npdc.fr/>

³voir: <http://www.library.tudelft.nl/ws/729/f.NL.html>

strasbg.fr

Organising Committee: Frédéric Brechenmacher, Jean Delcourt, Matthieu Husson, Guillaume Jouve, Brendan Larvor, Juliette Leloup, Sébastien Maronne, Amirouche Moktefi, Norbert Verdier, Elodie Vieille Blanchard.

Call for Papers

I am pleased to report that I have joined the Editorial Board of the new International Journal of Mathematics and Computer Science. I will be responsible for articles on the history of mathematics and computer science. Particulars of the new journal are on line.⁴

I invite members of this list to do two things:

1. volunteer to serve as referees. To volunteer, eMail me at SandiferE@WCSU.edu
2. submit manuscripts. By eMail, send them to me at SandiferE (at) WCSU.edu. By StampMail, send them to me at Ed Sandifer, Department of Mathematics, Western Connecticut State University, Danbury, CT 06810, USA. During the (northern hemisphere) summer months of May to August, send them to me at home at Ed Sandifer, 3 Juniper Road, Newtown, CT 06470, USA. Instructions on formats, etc., are on the web site.

Like all other editors, we are looking for brilliant and well written articles. It is an unspoken truism, though, that the “flavor” of a journal is determined, in part, by the preferences of its editors. I tend to be an crypto-internalist who tries to maintain a flavor of modern theories of historiography and theories of literary interpretation. We must present the mathematics itself clearly and accurately, but would love a clever postmodernist or deconstructive analysis, and I always enjoy a brilliant and insightful contextual connection.

I look forward to a full mailbox.

⁴See <http://ijmcs.futureintech.net/index.htm>

Ed Sandifer

Of Note

Shirley Gray attended a dinner, which was the first presentation of a new \$20,000 prize to be given in the History of Science (including Technology and Mathematics). The Award is to be given by the Francis Bacon Foundation through the auspices of the Humanities Division of Caltech and the Huntington Library. Also, this Foundation has arrangements for faculty wanting to do sabbaticals at Caltech and the Huntington. The new medal is being created by Tiffany’s and has a wonderful likeness of Bacon.

This is a major step forward for all scholars working in the field.

Book Review

Review of *Alfred Tarski: Life and Logic* by Anita Burdman Feferman and Solomon Feferman (Cambridge: Cambridge University Press, 2004), vi + 425 pp., ISBN 0-521-80240-7

In historical writings since at least the days when Herodotus of Halicarnassus (see [Herodotus 1942]) sought to account for the Greek victory over the Persians at Salamis and Marathon and determine what were the causes and significance of that war, political history has been the primary subject, and the chief focus has largely, if not exclusively, been laid upon the ‘great’ man or ‘hero’ and the ‘great’ deed, especially the handful of kings, emperors, generals, and statesmen who ‘made’ history. We may hold emblematic of this approach to history the stele erected to describe Egyptian pharaoh Ramses IIs virtually single-handed defeat of the Hittite army at Kadesh, Syria, in 1296 B.C., after Ramses’ army abandoned him in the field, despite the fact that history, and the peace treaty which the Hittite king offered soon after the engagement, records the battle as a ‘draw’, if not an outright Egyptian defeat.

In intellectual history, this trend was confirmed by writers such as Plutarch, who, in such treatises as the Lives of the Seven Wise Men [of classical Greece] (see [Plutarch 1997]), took as their primary focus the ‘great’ men and the ‘great’ ideas of ancient history. It found further expression in the Lives of the Philosophers of Diogenes Laertius (see [Diogenes 1888]). We should hardly be surprised if, as a consequence, intellectual biography found a ready place in the accumulation of treatises pertaining to the history of mathematics. Examining the period as late as the mid-twentieth century, when for nearly a century political historians began to turn their attention to broader issues such as economic and social history, J.E. Hoffmann was still concerned, in his work on the history of mathematics of the seventeenth and eighteenth centuries, to claim priority for Leibniz over Newton in the discovery of the calculus (see, e.g., [Hoffmann 1949]), in consonance with the ‘great’ men and ideas approach to the history of mathematics. By this time, it already was, or should have been, plain from the vast amount of material included in Felix Klein’s voluminous *Vorlesungen über die Entwicklung der Mathematik im 19. Jahrhundert* [Klein 1926-27] that a ‘great’ man and theorems approach must be inadequate for a thorough and unified account of the history of mathematics. It continued to persist, however, in such works as William Dunham’s [1990] episodic history *Journey through Genius: The Great Theorems of Mathematics*, which, as its title indicates, unapologetically and unabashedly takes this approach, and especially B.L. van der Waerden’s famous [1985] but patently ‘whiggish’ history of algebra from al-Khwarizmi to Emmy Noether.

We should not be surprised at the rising tide of popularity of biographies of mathematicians (and logicians) in our day, as biographies of Galileo and Newton have already been popular for centuries. Perhaps the motive is to discern, by examining the lives of these great minds, how they functioned, what secrets of personality, education, or behaviour, led them to their brilliant intellectual achievements. In the case of writers such as Eric Temple Bell in his [1965] *Men of Mathematics*, Jane Muir in her [1961] *Of Men and Mathe-*

matics: The Story of the Great Mathematicians, and Herbert Westren Turnbull’s [1993] *The Great Mathematicians*, the purpose was to stimulate interest in mathematics through biographies of singular and noted mathematicians, and thereby to encourage the neophyte or prospective student of mathematics that there was nothing inherently peculiar about mathematicians. Writers such as Bell and Muir, however, went to the opposite extreme, seeking the glamorous in the lives they portrayed. As historians of mathematics have long been wont to complain, Bell preferred a ‘good story’ to an accurate account, if a choice had to be made. Like Plutarch’s account of Pythagoras, myth and history are melded together in some of Bell’s narratives, while Muir and Turnbull rely extensively upon secondary sources, rather the way Plutarch relied upon hearsay and the accounts of earlier writers.

Although biographies of individual mathematicians (and logicians) latterly have been considerably more professional as measured by the author’s endeavour to make their narratives conform to the facts, many still select as their subject ‘romantic’ personalities and focus on the unique, colourful, picturesque, or adventuresome aspects of their personal lives. For example, in Don Kennedy’s [1983] *Little Sparrow*, Sonya Kovalevskaya is the dainty romantic who enters into a marriage for the purpose of leaving the family nest in order to gain independence to pursue a career in mathematics. Similarly, Anita Burdman Feferman’s [1993] biography of Jean van Heijenoort, whose work in logic comes across to readers as a mere counterpoint to his cloak-and-dagger adventures as a member of the revolutionary entourage of Leon Trotsky, enhanced by his James Bond personality and cinematic good looks. (To a different class belong the necrologies and memorials that encapsulate for their peers the intellectual achievements of deceased mathematicians and their influences on colleagues and disciplines.) Among serious professional biographies of mathematicians may be counted the late Walter Kaufmann-Bühler’s [1981] of Gauss, the product of a long-term research project by the dean of Springer Verlag’s mathematical editors. As for biographies of logicians, John W. Dawson’s treat-

ment of Gödel [Dawson 1997] is the first unified and systematic effort to provide an integrated portrait of both the man and his work. Dawson, who catalogued the Gödel Nachlaßband then served as a member of the team that published Gödel's collected works, provided a sympathetic yet balanced portrait of Gödel's life, while integrating into that account an exposition of the historical background to, and conceptual development of, Gödel's own contributions to mathematics, and especially logic, set theory, and philosophy. The combination of this reviewer's [1994] exposition of Jean van Heijenoort's intellectual biography with Anita Feferman's biography would approach the accomplishment of Dawson in his life of Gödel. The presence of Solomon Feferman's "Appendix" to the biography of van Heijenoort does not prevent it from lying closer to the Kennedy/Kovaleskaya end of the spectrum than to Dawson/Gödel.

Now, however, the efforts of the team of Solomon and Anita Feferman have come together to produce an integrated, all-encompassing, and rounded intellectual and personal biography of Solomon Feferman's teacher Alfred Tarski. It is an affectionate but honest portrait, warts and all, of the man and the mathematician who influenced the direction of several generations of logicians, especially in algebraic logic, universal algebra, and model theory, and philosophers working in semantics and theory of truth. Tarski molded the shape and direction of the development of these fields, serving as a pioneer in formulating the problems of a significant portion of logic that had lain dormant after the work of C.S. Peirce and Ernst Schröder and had yielded pride of place to the approach of Russell and Whitehead. Tarski brought renewed vigour to the algebraic approach to logic. Anita Burdman Feferman is an excellent writer with a well-honed capacity to capture the personality of her subject, the subject's relation with his environment, and with the social world in which he moved, as demonstrated also in her treatment of van Heijenoort and of Georg Kreisel ([Feferman 1996]). In many ways, Tarski's relations with others could be seen as *outré*, not unlike those of Kreisel. He was known to impose himself upon his female students, to take drugs, and to be imperious towards his doctoral students, expecting

them not only to live up to his expectations of them as mathematicians, but to accommodate their lives and working habits to his. On occasion he would assign them extracurricular tasks which had little to do with their own research but with his own. In the case of the logicians who have been the foci of her narratives, her personal acquaintance with them, established through social interaction, vastly enhances the depiction.

Solomon Feferman, a doctor student of Tarski's and a star in his own right in the logical firmament, is best known for his work in metamathematics, as well as for the history of logic, exemplified by his service as editor-in-chief of the Collected Works of Kurt Gödel [Gödel 1986-2003]. He brings to this biography of Tarski an acquaintance with Tarski and many of the other figures involved in Tarski's personal and professional life, and, more importantly, a deep familiarity with the mathematics of Tarski and his students. In succinct and lucid expositions characterized as 'interludes' interspersed throughout the biographical narrative as separate chapters, Solomon Feferman deftly provides straightforward technical accounts of the most significant aspects of Tarski's mathematical achievements, as well as those of his students and collaborators, and provides historical background to the problems which Tarski tackled. This is done so well that any logician can comprehend Feferman's exposition and appreciate the merits and significance of Tarski's work. We have an integrated and flowing account of the evolution of Tarski and his work, Tarski the man and Tarski the mathematician. The organization is an immense improvement over the biography of van Heijenoort.

The Fefermans did their homework and produced a remarkably full and supple portrait of Tarski in his many roles: as human being, as professor, and as logician. The accuracy of the account makes it easy for the reader to rely upon details as well as overviews. The community of logicians and historians of mathematics is greatly in the authors' debt for bringing a figure of such importance to life on the pages of their biography.

Irving Anellis

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Programme joint CSPHM/ CMS Meeting

Saturday, June 4

Morning Session

10:15 - 10:45 Jim Tattersall: *Arthur Buchheim and an Interpolation Formula*

10:45 - 11:15 Amy Ackenberg-Hastings: *John Playfair in letters*

11:15 - 11:45 Francine Abeles: *Lewis Carroll's Visual and Formal Logics*

11:45 - 12:15 Amirouche Moktefi: *How did Lewis Carroll become a logician?*

Afternoon Session 1

- 4:00 - 4:30 Robert Bradley: *The Genoese Lottery and the Partition Function*
4:30 - 5:00 Ed Sandifer: *Euler's Calculus Texts*
5:00 - 5:30 Antonella Cupillari: *The sixty-fourth article of the Istituzioni Analitiche*

Afternoon Session 2

- 4:00 - 4:30 Thomas Drucker: *Serendipity in Mathematics*
4:30 - 5:00 David Bellhouse: *A War of Words in Pictures: the dispute between Montmort and De Moivre over the probability calculus*
5:00 - 5:30 Miriam Lipshutz-Yevick: *Paul Lévy and the Dichotomy between the Normal and other Stable Probability Limit Distributions*

Sunday, June 5

Morning Session

- 10:15 - 10:45 David DeVidi: *Logical pluralism and the municipal by-laws of thought*
10:45 - 11:15 Robert Thomas: *Mathematics as a science*
11:15 - 11:45 Cameron Zwarich: *Philosophical Implications of Recent Work in Set Theory*
11:45 - 12:15 Jonathan Seldin: *Curry's Formalism as Structuralism*

Afternoon - Session 1

- 4:00 - 4:30 Tom Archibald: *Mathematics and the First World War*
4:30 - 5:00 Roger Godard: *Convexity*
5:00 - 5:30 Ed Cohen: *The Iranian Calendars*
5:30 - 6:00 (overlaps with NSERC workshop)

Afternoon - Session 2

- 4:00 - 4:30 David Orenstein: *'Greenwich? Ça n'importe. Où est PARIS?' A local post-Conquest eclipse-based longitude calculation at Québec*

- 4:30 - 5:00 Joel Silverberg: *The Mathematics of Navigation as Taught in Private Venture Schools, Academies, and Colleges in the New England Colonies, 1725-1850*
5:00 - 5:30 Craig Fraser: *Theoretical Cosmology and Observational Astronomy Circa 1930*
5:30 - 6:00 (overlaps with NSERC workshop)

Monday, June 6

Morning Session

- 10:15 - 10:45 Hardy Grant: *Greek Mathematics and Greek Science*
10:45 - 11:15 Alexei Volkov: *Geometrical diagrams and their didactical functions in traditional Chinese mathematics*
11:15 - 11:45 Alexander Jones: *Enigmas of the Keskinto Astronomical Inscription*

Medieval/Renaissance Session

Monday, June 6 - Morning Session

- 11:45 - 12:15 Glen Van Brummelen: *Al-Samaw'al and the Errors of the Astronomers: Where the Mistake Really Lies*

Monday, June 6 - Afternoon Session

- 4:00 - 4:30 Federica La Nave: *Bombelli and L'Algebra*
4:30 - 5:00 Odile Kouteynikoff: *Guillaume Gosselin, an algebraist in Renaissance France*
5:00 - 5:30 Jozsef Hadarits: *Diamonds, Rings, and Squares: Eastern Magic in Western Hands*
5:30 - 6:00 Christopher Baltus: *When is a Negative Really a Negative?*
6:00 - 6:30 Lawrence D'Antonio: *Number Theory from Fibonacci to 17th Century Safavid Persia: a question of transmission of knowledge*

CSHPM Annual meeting: Monday, 12:15-1:45.

CSHPM Executive Council meeting: Saturday, 12:15-1:45.

Book Launch: Saturday, 6:00-7:00.

Len Berggren's Plenary: Monday 2:45-3:35...
Currents and counter-currents in the history of mathematics in medieval Islam

From the Archivist

This is a picture of Amy Shell-Gellasch, husband, and son on the shores of the North Sea. By the time her son was four months old he had been to four countries. Well see if he can keep up the pace.



Amy remarks that when she is reading mathematics while nursing him, he stops nursing to look at the mathematics instead.

On Larry Summers

Should your Councilors have taken a stand on Harvard president Lawrence Summers's comments about why women's participation in mathematics and science lags behind their representation in the general population? I have to admit that the possibility never crossed my mind even though I am a strong proponent of Title IX as a former college varsity athlete, I always cover gender in my courses, my email inbox filled with reactions from the History of Science Society's Women's Caucus, and I appreciated the thoughtful responses that appeared in the April and May AMS Notices.

If you missed the whole brouhaha, Summers's "Remarks at NBER Conference on Diversifying the Science & Engineering Workforce," delivered January 14, 2005, can be found on line.⁵ He argued that there are three reasons why fewer women than men pursue scientific careers: women are not willing to make the sacrifices that are inherent to high-level jobs, men are innately more interested in and talented at deeply theoretical endeavors, and social pressures and discrimination disproportionately affect women. He then conjectured that the biologically disinclined factor was the most significant.

As a resident of the Washington, DC, area, I have known of Mr. Summers for a long time and did not find his "off-the-cuff" remarks to be a departure from his standard practice. Further, plenty of people have already parsed and rehashed this speech to death. Therefore, I am going to assume, for instance, that CSHPM readers are familiar with the concept from evolutionary biology that the genetic differences across one population outnumber the differences between two populations. (I wonder whether it is a Generation X thing, but since I have heard similar statements my entire life, my own instinct was to ignore the words as same-old, same-old and continue with the concerns of my daily activities.) I submit that, rather than get caught up in ultimately unproductive finger-pointing, our society should take the controversy as an opportunity to discuss whether we are doing all we can to encourage potential historians of mathematics, male or female.

This is a topic that we do explore at every Annual Executive Meeting. After all, our membership has been stable at just over 200 for several years, making us a healthy society that also has room to grow. We have taken steps to remove financial barriers by offering reduced membership rates to students, retired, unemployed, and scholars in developing countries and by providing free Proceedings to those members. We can offer travel grants, thanks to the Canadian government; we have intellectually stimulating meetings; and we have additional special student memberships meant to help professors engage their students in our activities. Perhaps, these

⁵See <http://www.president.harvard.edu/speeches/2005/nber.html>.

examples of institutional outreach are underadvertised.

To increase our intellectual diversity, we have begun to meet jointly with a variety of fellow scholars, including the Canadian Mathematical Society, the British Society for the History of Mathematics, and the Canadian Society for the History and Philosophy of Science (through CFHSS). This requires sacrifice from those of us who love Congress (formerly known as the Learned's). However, these partnerships raise our professional profile and help us recruit more graduate students and new historians of mathematics. For example, as I write this, I am also reviewing Bettye Anne Case and Anne M. Leggett, ed., *Complexities: Women in Mathematics* (Princeton: Princeton University Press, 2005) for CHOICE. I was struck by the enthusiasm for math history exhibited by the Association for Women in Mathematics contributors and thought to myself that this was a perfect example of mathematicians we can assist with methodological grounding in history.

Finally, there is the usual concept of diversity, physical appearances. Although several imbalances in our membership were immediately apparent at my own first CSHPM meeting (Montreal, 1995)—I am an “alien life form” on three levels (a young, female historian), while my Swedish ancestors put me among the Caucasian majority—I also quickly learned that a warm and supportive environment is one of our great strengths. In other words, each of us can build CSHPM through welcoming attitudes and personal relationships.

These are preliminary reflections meant to invite further dialogue. I have argued that we should not take seriously Summers's implication that women cannot measure up in mathematics or mathematics history. It is also not necessary to engage in hand-wringing over the representation of women in the history of mathematics or our society. Still, recognizing that even good societies can always be better, we can all pay attention for opportunities to increase our numbers and to seek diversity in all its forms.

Amy Ackerberg-Hastings

New Members

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

Dr. Pierre Boulos
University of Windsor
Windsor, ONT

Bob Burn
Exeter, U.K.

Joao Caramalho Domingues
ILSC, London, U.K.

H.L. Fisher
Herts, U.K.

Amirouche Moktefi
Strasbourg, France

Helena Greenwood
Berkshire, U.K.

Dionysios Lamprinides
N Chalkidona, Greece

Edmund Swylan
Riga, Latvia

François Charette
Gartringen, Germany

Odile Koutenykoff
Paris, France

Stephanie Cawthorne
Marymount University
Arlington, VA

From the Editor

This issue of the Bulletin may set a record for thinness, and this editor, at least, should apologize for his not having beaten the bushes more effectively. The semester's teaching load was unexpectedly added to when a colleague, just before classes began, needed surgery and left the rest of us to pick up the courses. The consequent backlog never

disappeared, and so the observant reader will notice the absence of features from this issue that are normally guaranteed. Let us wish for healthier colleagues in semesters to come.

In the meantime, thanks are due to some of those who concocted contributions to avoid reducing the text of this issue to the size of a postcard. The table of contents will give away the identities of most of these collaborators, but especial thanks are due to Amy Ackerberg-Hastings for offering to come up with something. Irving Anellis' review follows up on his appeal to the history of mathematics community in the last issue. With luck he will find increasing resources available to him.

The most pressing item for the reader's consideration is the programme for the meeting in Waterloo. It is a rich assortment of talks, and the use of parallel sessions was required by the number of those submitting abstracts. Since, in any case, the sessions will be parallel to those of the Canadian Mathematical Society, one will have to pick and choose carefully. Our Society's schedule calls for meeting again with the CMS in three years, and impressions of the success of various features of this year's meeting will be helpful in planning for 2008.

On the subject of planning, it is worth recalling that we are trying to meet with the BSHM on Canadian soil in 2007. Although that may seem remote, the BSHM would be grateful if we can have the details for the conference in place by the summer of 2006. That leaves the coming year to work on the various features of the joint meeting. Volunteers will be eagerly sought after, or, perhaps more accurately, those not volunteering to help will be consigned to the festival chorus for the meeting.

Elsewhere in this issue you can read of the results of the editorial labours of Glen van Brummelen and Michael Kinyon. The volume dedicated to the memory of Ken May is one of the permanent forms taken by the Society's respect and admiration for its *sine quo non*. Even if the spectacle of Wellington's thrashing Bonaparte will not be on display in Waterloo, we can perhaps raise some flags in recognition of victories over ignorance.

Thomas Drucker

About the Bulletin

The *Bulletin* is published each May and November, and is co-edited by Tom Drucker (druckert@mail.uww.edu) 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 Tom Drucker and Eisso Atzema at the above e-mail address, or by snail mail to Tom Drucker, Department of Mathematical and Computer Sciences, University of Wisconsin-Whitewater, Whitewater, WI 53190.