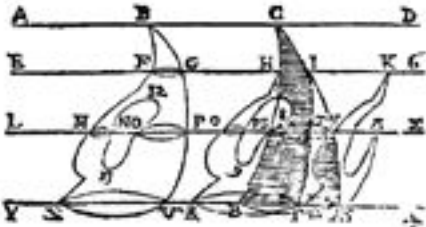


BULLETIN

CSHPM



SCHPM

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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.cshpm.org) is maintained by **Michael Molinsky**, University of Maine at Farmington, Farmington, ME 04938, USA, michael.molinsky@maine.edu

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

As 2005 draws to a close, it seems an appropriate time to look back at the old year and ahead to the coming one. In both cases, the dominant theme for the CSHPM seems to be collaboration with partners of long standing: the Canadian Mathematical Society (CMS) and the Canadian Federation for the Humanities and Social Sciences, which many of us still think of by its former name: The Learned.

A year ago, the CMS was gearing up for its winter meeting in Montreal. Our own Tom Archibald, who was visiting the Dibner Institute and is now at Simon Fraser, and Alexei Volkov of UQAM were organizers of the History of Mathematics session at that meeting, a session which featured enthusiastic participation by many CSHPM members. The CMS' 2005 winter meeting will soon be taking place in Victoria, and there will once again be a history of mathematics session, this one organized by Len Berggren of SFU. Although these winter history sessions are not official CSHPM meetings, the Society is committed to assisting the CMS in mounting sessions in the history of mathematics at its December meetings, wherever possible. This was one of Len Berggren's priorities during his most recent stint as our president (2002-04), a policy that was endorsed by the membership at the 2003 annual meeting in Halifax. Thanks to the efforts of Len and Tom, relations between the CSHPM and the CMS have probably never been better.

Of course, the most important manifestation of our partnership with the CMS during the last year was our joint annual meeting, held at the University of Waterloo on June 4-6. This was our second joint annual meeting, following on the success of the 2000 meeting at McMaster University. The special session was "The History of Mathematics from Medieval Islam to Renaissance Europe" and the Ken May Lecture was delivered by Len Berggren. Len's talk, "Currents and counter-currents in the history of mathematics in medieval Islam," was accorded the status of a Plenary Talk at the meeting and so reached a much broader audience than is usual for the CSHPM keynote speaker. Len's talk was captivating; it must certainly have raised awareness

of the Society and the general awareness of the history of mathematics in the Canadian mathematical community.

All in all, 28 talks were given in the General and Special Sessions, covering a wide range of philosophical and historical topics and periods. The CSHPM is particularly grateful to Graham Wright, the Executive Director of the CMS, and to Gertrud Jeewanjee, the Meetings Director, who worked tirelessly to make the meeting a success. For my part, it was a great pleasure to work with both of them.

One of the highlights of the meeting was the official launch of *Mathematics and the Historian's Craft: The Kenneth O. May Lectures*. This book, published by Springer in the CMS Books in Mathematics Series, consists of twelve papers based on Ken May lectures given between 1990 and 2004. Kudos to Glen van Brummelen and Michael Kinyon for their great work in compiling and editing this volume. (See the advertisement included with this *Bulletin*; have you placed an order request with your institution's library?)

In 2006, the Society will once again hold its annual meeting under the umbrella of the Congress of the Humanities and Social Sciences, at York University. Because of our joint activities with the British Society for the History of Mathematics in 2004 and with the CMS in 2005, this will be our first meeting with the Learned's since Halifax in 2003. Meetings of the Learned's can be most exhilarating: they are the largest annual academic gatherings in Canada. They provide us with the opportunity to rub elbows with colleagues in other branches of history and philosophy, notably in the CSHPM and, in some cases, the chance to catch up with old friends from other academic disciplines.

The dates of the CSHPM meeting are Sunday, May 28 through Tuesday, May 30. The Special Session is "Mathematics and the Wider Culture," organized by Sylvia Svitak of CUNY Queensborough. Christopher Baltus of SUNY Oswego is organizing the General Session. The Local Arrangements Coordinator is Trueman MacHenry of York University. The Society's annual business meeting will take place during the course of the meeting, probably on the Monday. The agenda for that meet-

ing will include a discussion of the future of our *Proceedings*. A subcommittee consisting of Tom Archibald, David Bellhouse, Alex Jones and Robert Thomas was established at the Waterloo meeting to consider such issues as private vs. public circulation and electronic vs. print media. If you would like to contribute to the deliberations of the subcommittee, please consider sharing your point of view with the CSHPM listserv, cshpm@yahoo.com. If you're not already enrolled on the listserv, please send an email to the CSHPM webmaster at: michael.molinsky@maine.edu.

Another critical item of business for the 2006 meeting is the election of officers for 2006-08. The Nominating Committee consists of Fran Abeles, Tom Drucker and me. If you would like to make a nomination, please email me at bradley@adelphi.edu.

The Call for Papers for the 2006 meeting is included with this *Bulletin*. I encourage you to consider giving a paper and, in any case, to attend the meeting and experience the intellectual stimulation that accompanies the sharing of research and exchange of ideas among our community of philosophers and historians.

A final note of thanks and welcome goes out to Michael Molinsky of the University of Maine at Farmington, the new CSHPM webmaster. Mike designs and maintains our website, www.cshpm.org, and is always happy to receive content for the site from members. He also administers the CSHPM listserv. Look for his first web review column in this issue of the *Bulletin*.

Rob Bradley

Convergence: Where Mathematics, History and Teaching Interact

An Invitation and Call for Papers

Convergence: Where Mathematics, History and Teaching Interact is the MAA's new online magazine in the history of mathematics and its use in teaching. Part of MathDL, the mathematics digital library, *Convergence* is aimed at teachers of

grades 9-14 mathematics, be they secondary teachers, two- or four-year college teachers, or college teachers preparing secondary teachers. (“Grade 9-14 mathematics” encompasses algebra, synthetic and analytic geometry, trigonometry, probability and statistics, elementary functions, calculus, linear algebra, and differential equations.) The editors, Victor J. Katz, from the University of the District of Columbia, and Frank Swetz, from Penn State University, Harrisburg, welcome all members to log in to the Convergence website (<http://convergence.mathdl.org>) and see what the magazine has to offer.

Among the types of material appearing in the magazine are the following:

- Expository articles dealing with the history of various topics in mathematics curriculum. These may contain interactive components and color graphics, to take advantage of the capabilities of the Web. Each article will have a discussion group attached, where readers can share suggestions as to how the material can be used in the classroom and point out strong points and possible pitfalls.
- Translations of original sources, generally accompanied by commentary showing the context of the works. The goal of these translations is always to show teachers how ideas were developed in various cultures and how knowledge of this development is useful to teaching the same ideas to today’s students.
- Reviews of current and past books, articles, and teaching aids on the history of mathematics of use to teachers, as well as reviews of websites providing information on the history of mathematics.
- Classroom suggestions. These may be self-contained articles showing how to use history in the teaching of a particular topic, or they may be materials closely related to a main article, showing in some detail how to use the article in a classroom setting.
- Historical problems. These problems will appear in a section entitled “Problems from an-

other time,” with new problems appearing frequently.

- What Happened Today in History? Each day, there will be a listing of 2-3 “mathematical events” which happened on that date in history.
- Quotation of the day. A new and interesting quotation about mathematics from a historical figure will appear in this section each day. The reader will also be able to search our database of quotations.
- An up-to-date guide to what is happening around the world in the history of mathematics and its use in teaching. The magazine will report on past meetings and give notice of future meetings. Where abstracts are available for a particular meeting, these will be included. We may also include copies of handouts for easy access, as well as links to the author’s webpage, if available.

The magazine is currently free to all, due to the support of the National Science Foundation, but registration is required to access the site. A small subscription fee will be charged beginning later this year.

Currently, we have a limited supply of articles in our pipeline. Because our goal is to bring out new material on a regular basis, we need a continual flow of articles and classroom suggestions. We therefore welcome your ideas for articles as well as your completed manuscripts. In particular, we welcome short classroom suggestions that can immediately be implemented by teachers. Materials should be sent both in hardcopy and electronically. Hardcopy should be sent to Victor Katz, Convergence, Mathematical Association of America, 1529 18th St. N.W., Washington, DC 20036. Electronic files should be sent to Victor Katz at vkatz@udc.edu. We can take articles in Word or TeX, but please include illustrations (in jpg format), applets, etc. as separate files, and give explicit instructions for both internal and external hyperlinks. If there are many illustrations or applets, it is best to send the electronic version on a CD to the MAA address. If you have an idea for an article, but do not know how to produce applets for it, we suggest that you

contact an expert on your own campus for help. If necessary, however, we can provide help in the editorial office, provided you give us very explicit instructions as to what you need. If you are interested in writing reviews for *Convergence*, send your name and some indication of the kinds of material in which you are interested to Frank Swetz at guru6@myway.com. We also welcome interesting quotations as well as information on mathematical dates to add to our database.

Victor Katz

Web Review: The Archimedes Home Page

I still remember very clearly the first time I taught a history of mathematics class and introduced the subject of Archimedes. I had always been fascinated by his work and achievements, and I was certain that the students would have already learned about him long before taking my class. Sadly, the only Archimedes my students seemed to know was the cranky old owl in the Disney animated feature, “The Sword and the Stone.” Future classes at least knew the name belonged to a Greek mathematician, but little else. I have always made a special effort since to try to impart to my students some of my own enthusiasm for and appreciation of this great mathematician.

One of my favorite online resources is the Archimedes Home Page¹. The site does not offer comprehensive coverage of Archimedes’ complete life and works, which would be quite a task. Instead, the web pages concentrate on selected topics, and the material within is very well organized. The topics include an overall history of Syracuse and its relations to Rome and Carthage, the Archimedean solids, the Cattle Problem, the tale of the golden crown and many more.

The characteristic of this website that impressed me the most when I first encountered it was the outstanding documentation. The source of facts, quotations and even images are clearly displayed,

¹<http://www.math.nyu.edu/~crrorres/Archimedes/contents.html>

and texts from a wide variety of original sources are included. For example, the section titled “The Death of Archimedes” includes direct accounts from Livy, Valerius Maximus, Plutarch and others. The section also contains a list of illustrations of Archimedes’ last moments, and each image is accompanied by a brief description or history, information on the artist and the collection or museum that holds the artwork.

The website makes effective use of technology and includes a wide variety of animated GIFs and QuickTime movies. For example, the section entitled “Archimedes’ Claw” contains animations illustrating various mechanical models and their method of attack on ships. The section also contains movies of a 1/60th working scale model of a claw overturning a ship, along with a paper describing the model’s construction and operation.

The Archimedes Home Page itself does not contain any information about the infamous Palimpsest. It does include a link, prominently displayed at the top of the first page, to the NOVA website “Infinite Secrets,”² which contains some excellent images of the palimpsest and descriptions of the work of restoring the document.

The site is written and maintained by Dr. Chris Rorres, Professor Emeritus of Mathematics at Drexel University. He has recently published an article in *The Mathematical Intelligencer* entitled “Completing Book II of Archimedes’ On Floating Bodies.” While Archimedes considered the equilibrium of a floating parabola where the base was either completely above or completely below the surface of the water, the article considers the case where the base is partially submerged. The website not only contains a copy of the article itself, but also a large collection of QuickTime animations that help to explain and support the paper.

Mike Molinsky

²<http://www.pbs.org/wgbh/nova/archimedes/>

Introduction

On my March Breaks from teaching high school mathematics in downtown Toronto, I take the train to Quebec City for a research session in the Archives of the Musée de la Civilisation. I have been focusing on the history of astronomy education and research at the Séminaire de Québec, established in 1663 and still delivering its programme in 2005. This time I was preparing my talk for our Waterloo meeting, based on a period manuscript for the solar eclipse of October 27, 1780.³ Its author, Père Thomas-Laurent Bédard, a superior of the Séminaire, had used advanced trigonometric methods with powerful logarithmic tools.

In one of my rare moments of organisation, I had written in advance to Lan Tran, the Musée archivist who had been so helpful on previous visits. I asked if she could prepare a selection of appropriate period mathematical texts.

Waiting for me was a collection of 17th, 18th and 19th century texts that had been used on site for mathematics instruction and research. Among them was Antoine Deparcieux's 1741 *Nouveaux traités de trigonométrie rectiligne et sphérique: démontrés par une méthode nouvelle & plus facile que celle que l'on a employé jusqu'à présent* bearing the period inscription "Séminaire des missions étrangères de Québec."

On the first double page spread of the "TABLE DES LOGARITHMES, DES SINUS ET DES TANGENTE" was an extensive annotation filling the left hand, bottom left and bottom right margins. The hand looked like that of Bédard, of whom I have 40 manuscript pages.

³David Orenstein, "Greenwich, ça n'importe! Où est Paris?" to appear in *Proceedings* of the CSHPM, ed. Antonella Cupillari, vol. 18, 4-6 June 2005.

Left Column

pour avoir le logarithme d'une de 2 de 3 de 4 etc seconde il n'y a qu'à oter une unité de la caractéristique du log. de 10 de 20, de 30, de 40 secondes. et si on veut celui dun de deux de trois etc dixiemes de secondes il n'y a qu'à oter deux unités de la caractéristique de 10, de 20 de 30 secondes. cela est évident car si on ôte du log. de 1'40" ou 100 secondes une unité on aura le log. de 10 secondes. log. de 1'40"66855749. otez l'unité il reste 56855749. qui est le log. de 10". comme on le voit dans la table.

Bottom of Left Page:

dans les autres cas on aura recours aux logarithmes des nombres naturels par exemple on veut le log. de 12,"3 on fera le log. d'une seconde comme cidessus il sera 46855749 ensuite on y ajoutera le log. de 123 diminué de l'unité à la caractéristique c'est à dire le log de 12,3. et on aura le log d'une seconde x par 12,3. 10899051 log. 12,3 ce qui donnera 57754200. log, de 12,"3 etc .

Bottom of Right Page:

autre ca ^3'10",9 ajoutez au log de 1". 4,6855749 le log. diminué de l'unité du nombre naturel 1907 c'est adire celui de 190,7 qui est 2,2803507 et vous aurez le log. de 3' 10",7 qui est 69659256

Translation

To get the logarithm of one, of 2, of 3, of 4, etc. seconds, you only have to remove a unit from the characteristic of the log. of 10, of 20, of 30, of 40 seconds. And if you want that of one or two or three tenths of a second, you only have to remove two units from the characteristic of 10, of 20, of 30 seconds. That is obvious for if you take from the log. of 1'40" or 100 seconds a unit then you will get the log. of 10 seconds. log. of 1'40", 66855749. Removing the unit there remains 56855749. which is

the log. of $10''$. as one sees in the table. In the other cases you will have recourse to the logarithms of the natural numbers for example you want the log. of $12''.3$ you will get the log. of a second as above it will be 46855749 following that you will add the log. of 123 diminished by unity from the characteristic that is to say the log of 12.3. and you will have the log of one second x by 12.3. 10899051. log. 12.3 which will give 57754800. log. $12''.3$ etc. Besides for $3'10''.7$ add to the log of $1''$ 4,6855749 the log. diminished by one from the natural number 1907 that is to say from 190.7 which is 2,2803507 and you will have the log. of $3'10''.7$ which is 69659256

Discussion

My attribution to Bédard indirectly follows Noël Baillargeon in his third volume on the history of the Séminaire.⁴ On page 186 he attributes the unsigned eclipse manuscript (M-251) to Bédard. I assume Baillargeon wrote the attribution on the manuscript itself.

While Deparcieux gives logarithms for sines to the nearest ten seconds of arc, the note tells the reader how to find the values for seconds and tenths of seconds. This is the precision Bédard uses for his eclipse calculations, using an obliquity of the ecliptic of $23^{\circ}27'58.7''$, for example.

Why would Bédard be using a 51 year old book when he was working on his eclipse calculations in 1792? Well, I regularly use Korn and Korn's 1961 *Mathematical Handbook* in my studies, which was purchased in 1968.⁵ Compared to the other resources available to Bédard, Deparcieux had the most detailed trigonometric tables. Similarly, Baillargeon points out that Jérôme de Lalande's 1771 *Astronomie* was the basis for astronomy education at the Séminaire well into the 19th century.⁶ The copy I consulted is inscribed "au Séminaire des missions Etrangères de Quebec 1772." and bears some

⁴Noël Baillargeon, *Le Séminaire de Québec de 1760 à 1800* (Québec: Les Presses de l'Université Laval, 1981).

⁵Granino A. Korn and Theresa M. Korn, *Mathematical Handbook for Scientists and Engineers* (New York and Toronto: McGraw-Hill, 1961).

⁶Noël Baillargeon, *Le Séminaire de Québec de 1800 à 1850* (Québec: Les Presses de l'Université Laval, 1994).

period annotation.

Conclusion

In the late 18th century someone annotated a table of trigonometric logarithms to extend the table's precision by a factor of 100. This occurred at the Séminaire de Québec in Quebec City, almost certainly by one of the Séminaire's small group of teaching fathers. Thomas-Laurent Bédard was one who needed such precision in his astronomical calculations.

It is left as an exercise for the reader to verify his logarithmic calculations. Also it is left to the kindness of the editor to permit me to examine them in another issue of our Bulletin.

Sources

All sources from the Archives of the Musée de la civilisation, Quebec City, and the Fonds ancien, Bibliothèque du Séminaire de Québec.

1. Bédard, Thomas-Laurent, M-251, 1778-1792. Manuscript contained in a large, hardcover notebook.
2. Deparcieux, Antoine, *Nouveaux traités de trigonométrie rectiligne et sperique (...)* Paris: Hipolyte-Louis Guerin & Jacques Guerin, 1741. Collection Number: 195.7.1
3. Lalande, Jérôme de, *Astronomie*, 2nd ed., 3 vol. Paris: Chez la veuve Desaint, 1771. Collection Number: 197.1.10, v.1,2,3

David Orenstein

AMS Section Meetings

Shawnee L. McMurrin and Jim Tattersall organized a Special Session in History of Mathematics at the 2005 Western Section Spring Meeting of the American Mathematical Society at UC Santa Barbara. The speakers in their session (in order of



Figure 1: The Treasurer, Bulletin Editor, and President while away the afternoon at the CSHPM/SCHPM exhibit booth at Waterloo.
(Photo by Tom Drucker)

listing on the program) and the titles of their talks were as follows:

- M. Elizabeth Mayfield (Hood College): *Gerbert, Pythagoras, and the Chromatic Scale*
- Patti W. Hunter (Westmont College): *Foundations of Statistics in American Textbooks: Probability and Pedagogy in Historical Context*
- Karen V. H. Parshall (U. of Virginia): *James Joseph Sylvester: A Jewish Mathematician in Victorian England*
- V. Fred Rickey (U.S. Military Academy at West Point): *Mathematics at West Point in the Mid-Twentieth Century*
- Janet L. Beery (U. of Redlands): *Thomas Harriot's Communication of Mathematics*
- Deborah A. Kent (U. of Virginia): *The National Academy of Sciences Unfit for 'Linear Associative Algebra'?*
- Francine F. Abeles (Kean U.): *The Development of the Tree Method in Logic from 1934 to 1968*
- Jim Tattersall (Providence College) and Shawnee McMurrin (Cal State San Bernardino): *Contributions by Women to Nineteenth-Century American Mathematical Journals*
- Mario U. Martelli (Claremont McKenna College): *The Life, Mathematics, and Untimely Death of Renato Caccioppoli*
- Harriet M. Lord (Cal Poly Pomona): *Henri Lebesgue and Surface Area*
- Jeffrey Stopple (UC Santa Barbara): *Euler's Idoneal Numbers*
- Wladimir G. Boskoff (U. Ovidius Constanza, Romania) and Bogdan D. Suceava (Cal State Fullerton): *Barbillian Distances: The History*

Patricia Allaire, Rob Bradley, and Jeff Suzuki organized a Special Session in History of Mathematics at the 2005 Eastern Section Fall Meeting of the AMS at Bard College. The speakers in their session (in order of listing on the program) and the titles of their talks were as follows:

- Gordon A. Swain (Ashland U.): *Changing Proofs for the Quadrature of the Parabola, II*

- Lawrence D'Antonio (Ramapo College of NJ): *The History of Euler's Conjecture*
- Robert E. Bradley (Adelphi U.): *Euler's Application of the Partition Function*
- C. Edward Sandifer (Western Conn. State U.): *Euler and Series*
- Hardy Grant (York U.): *Greek Mathematics and Greek Skepticism*
- Francine F. Abeles (Kean U.): *Lewis Carroll's Diagrammatic Logic System for Syllogisms*
- Steven Gimbel and Kellen Dwyer (both Gettysburg College): *Gödel, Positivism, and Incompleteness*
- Thomas Drucker (U. of Wisconsin - Whitewater): *Von Neumann, Gödel, and Bernays: Putting Ordinals in Ordnung*
- Bruce S. Burdick (Roger Williams U.): *Some Highlights from the Printed Mathematics of Colonial Mexico and Peru*
- Andrew B. Perry (Springfield College): *Curiosities in Nineteenth-Century Mathematics Textbooks*
- Walter Meyer (Adelphi U.): *Unsolved Problems in the History of Undergraduate Mathematics*
- Alan Gluchoff (Villanova U.): *The Contributions of Four "Mathematical People" to the Mathematical Ballistics of the World War I Era in America*
- Richard M. Davitt (U. of Louisville): *Franchise Players and Modi Operandi of the Sections of the MAA: 1915-1965*

Shawnee and Jim have also organized a Special Session in History and Philosophy of Mathematics at the 2006 Western Section Spring Meeting of the AMS at San Francisco State University. The speakers will be: Ron Graham, UC San Diego; Persi Diaconis, Stanford University; Keith Devlin, Stanford University CSLI; Joe Dauben, Herbert Lehman College CUNY; Reviel Netz, Stanford University; Len Berggren, Simon Fraser University; Hardy Grant, Ottawa, Ontario; Adrian Rice, Randolph Macon College; Glen van Brummelen, Bennington College & Dibner Institute MIT; Sloan Despeaux, Western Carolina University; Jen Beineke, Western New England College; Fred Rickey, USMA at West Point; Shawnee McMurrin, Cal State San Bernardino; and Jim Tattersall, Providence College.

CMS Winter Meeting

Len Berggren followed up our successful joint meeting at the University of Waterloo by organizing a Special Session in History of Mathematics at the 2005 CMS Winter Meeting of the Canadian Mathematical Society at the University of Victoria. The speakers in the session included: Len Berggren, Simon Fraser U.; Hardy Grant, York; Alexander Jones, Toronto; Nathan Sidoli, SFU; Glen Van Brummelen, Bennington College; and Byron Wall, York.

2004 Financial Statements

The following financial statements cover the period 1/1/2004 through 12/31/2004.

	\$ Can.
Income	
dues/subscr.	14031.73
SSHRC travel grant	3480.00
Access (Can. Copyright)	1255.67
TOTAL	18767.40
Expenses	
<i>Philosophia Mathematica</i>	1721.15
<i>Historia Mathematica</i>	3936.28
<i>Bulletin</i>	295.64
<i>Proceedings</i>	1719.72
CFHSS Membership	1940.00
May Fund	1363.00
Can. Undergr. Math Conf	250.00
Postage	83.70
Reconciliation with BSHM	417.66
Travel	3623.53
Bank charges	100.00
TOTAL	15450.68
NET	3316.72
Balance	16033.62
TD Mortgage Corp.	3254.88
TOTAL	19288.50

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 1.21 has been used to convert American dollars into Canadian ones.

As of May 1, 2005, the total bank balance was \$25,513.89. There were 7 donations to the Society from Canadian members in 2005 and 18 from U.S. members, for a total of \$480.83. Expected income included the SSHRC Travel Grant (\$3480.00). Outstanding accounts payable included 60% of the *Historia* subscriptions and 100% of the *Philosophia* subscriptions.

David Bellhouse

Annual Joint AMS/MAA Meeting in San Antonio, TX

The following is a list of the events at the Joint Mathematics Meetings in San Antonio that pertain to the history and philosophy of mathematics. More information can be found on the MAA or AMS websites.

- Thursday 12 January, 8:00-10:55: MAA session on "Philosophy of Mathematics," organized by Roger A. Simons and Satish C. Bhatnagar.
- Thursday 12 January (9:00-11:00) and Saturday 14 January (9:00-11:00): MAA Minicourse #7, "Geometry With History for Teaching Teachers," organized by David W. Henderson and Daina Taimina. (NOTE: You must preregister for this course.)
- Thursday 12 January, 9:30-10:50: HOM SIG-MAA Special Presentation, "The Shapes of Sacred Space: The Geometry of Ancient Maya Art and Architecture," Edwin L Barnhart and Christopher Powell.
- Thursday 12 January (2:15-6:05) and Friday 13 January (1:00-3:50): Joint Special Session, "An-

cient and Nonwestern Mathematics,” organized by Duncan J. Melville.

- Friday 13 January, 8:00-11:55: MAA session on “Using History of Mathematics in Your Mathematics Course,” organized by Richard J. Jardine and Amy Shell-Gellasch.
- Friday 13 January (1:00-3:00) and Sunday 15 January (1:00-3:00): MAA Minicourse #11, “Teaching a Course in the History of Mathematics,” organized by V. Frederick Rickey and Victor J. Katz. (NOTE: You must preregister for this course.)
- Friday 13 January, 6:00-8:00: HOM SIGMAA Annual Meeting and guest lecture by Kim Plofker, “History of Mathematics and Original Sources in India: A Fieldwork Report”.
- Saturday 14 January (1:00-5:50) and Sunday 15 January (1:00-5:50): Joint Special Session, “History of Mathematics,” organized by Joseph W. Dauben, Patti Hunter, and Karen H. Parshall.
- Saturday 14 January, 6:00-8:00: POM SIGMAA Annual Meeting, organized by Bonnie Gold, chaired by Roger A. Simons, guest lecture by Paul Humphreys.

Amy Shell-Gellasch

HOMSIGMAA Student Paper Contest

The History of Mathematics Special Interest Group of the Mathematical Association of America is pleased to announce its third annual Student Paper Contest in the History of Mathematics. This contest is open to all undergraduate students.

The purpose of this contest is to increase awareness and interest in the history of mathematics among undergraduates, and to encourage students to learn more about an area in the history of mathematics of their choosing.

A grand prize and two runner-ups will be chosen. Winners will receive a one year student membership to the MAA which includes a one year subscription to Math Horizons Magazine and one journal, the

grand prize winner will also receive a \$25 dollar gift certificate to the MAA bookstore.

Submission Guidelines and Deadlines:

- Topics can be drawn from any field of mathematics.
- Papers can address a single person or topic, or be an historical survey of a topic or school of thought.
- Submissions should be approximately 5000 words (approximately 12 double spaced 12 point pages) in length.
- Papers should include a full citation list.
- Papers should not draw too heavily from web sources.
- Please include a cover sheet with: your name, the paper’s title, your institution, supervising instructor if applicable, and email and permanent postal address.
- Please submit hard copy and electronic copy to the addresses below.
- Students submitting a paper need not be currently taking a history of mathematics course.
- Single authored papers only, please.

Deadline for submission is March 31, 2006. Papers will be judged by a panel of specialists for content, presentation, and grammar. Results will be announced via email and on the HOM SIGMAA website in June.

Submissions and questions can be directed to Dr. Amy Shell-Gellasch via email⁷ or by post at: CMR 415, Box 3161, APO AE 09114. Information can also be found at the HOM SIGMAA website accessible from the MAA website.

AGM of CSHPM/SCHPM

This year, the Annual General Meeting of the Canadian Society for History and Philosophy of Mathematics took place at the University of Waterloo, Waterloo, ON, on June 6. The meeting, with

⁷amy.shellgellasch@us.army.mil

31 members in attendance, was called to order at 12:40 pm by Rob Bradley, President.

Agenda for the General Meeting:

- Approval of minutes of 2004 AGM
- Treasurer's report
- Secretary's report
- President's report
- Webmaster's report
- Book Editor's report
- Proceedings Editor's report
- Bulletin Editors' report
- Formation of a Nominating committee
- Special session for 2006
- Committee for 2007 meeting
- Statements of appreciation

1. **Motion:** To approve the minutes of the July 2004 Annual General Meeting as printed in the November 2004 Bulletin. **Carried unanimously.**
2. The Treasurer, David Bellhouse, provided an official report for 2004 and an update through May 2005.

Discussion and comments:

- The Treasurer is postponing investing surplus funds until all financial obligations have been met.
- It was suggested that student participants be reimbursed at a higher rate. The Treasurer was able to meet all submitted requests last year.
- The honorarium for the plenary speaker is usually paid from CSHPM funds. However, the honorarium for this year's speaker is being paid by CMS.
- The GIC is the Society's local endowment fund.

Motion: To receive the Treasurer's report as distributed. Carried unanimously.

3. The Secretary, Pat Allaire, reported that, as of today, 200 members have enrolled for 2005. Included are 2 Student Associates, 45 reciprocal members from BSHM, none from CSHPM. Forty-five members requested reciprocal membership in BSHM, 20 in CSHPM. Four members paid the "developing nations" rate. Eighty-seven members ordered *Historia*, and 50 ordered *Philosophia*. One hundred six copies of the Proceedings were distributed.

The Secretary thanked Amy Ackerberg-Hastings for taking notes of the informal Executive Council meeting.

4. The President thanked session organizers, Duncan Melville and Glen Van Brummelen; Proceedings Editor, Antonella Cupillari; Bulletin Editors, Tom Drucker and Eisso Atzema; and the Secretary.
5. Glen Van Brummelen announced that the volume of keynote addresses, *Mathematics and the Historian's Craft: The Kenneth O. May Lectures*, which he and Michael Kinyon edited, has been published. He encouraged members to purchase the volume and to encourage their libraries to do so.
6. The Secretary reported for the *Proceedings* Editor, Antonella Cupillari. The 2004 *Proceedings* have been distributed. Papers for the 2005 *Proceedings* must be submitted no later than Sept. 1, 2005. Directions are on the web page, www.cshpm.org. The Editor requests, as a matter of professional courtesy, that contributors make every effort to meet the deadline and contact her if there is a problem in doing so.

Contributors to the 2005 Proceedings are asked to include an abstract along with their paper. To emphasize the bi-lingual nature of the Society, this abstract should be in both English and French. Roger Godard offered to assist the Editor with editing the French abstracts in French and with translation where needed.

Discussion and comments: At its informal meeting, the Council discussed the question of requests for the *Proceedings* from book dealers and libraries. Our *Proceedings* has been an internal document and the copyright to each contribution remains with the individual author, allowing him/her to publish in another journal.

After some discussion, it was decided to form a committee to look to the future of the *Proceedings*. The members of the committee will be Tom Archibald, David Bellhouse, Alexander Jones, and Robert Thomas. The present policy will be maintained for the 2005 volume.

7. Tom Drucker, Bulletin Editor, thanked co-editor, Eisso Atzema, for handling the physical production of the Bulletin. The May issue will be mailed by June 15.

Amy Ackerberg-Hastings will replace Tom, who has served as editor for six years.

Discussion and comments: Opinion was divided as to whether the Bulletin should be continued in paper form or should be distributed electronically, with paper as an option. No decision was made at this time.

8. The terms of the current Executive Committee expire in May, 2006. A Nominating Committee was formed to form a slate for the new Executive Committee. The members are Fran Abeles, Rob Bradley, and Tom Drucker.
9. The President reported that the 2006 meeting will be held at York University, Toronto, in conjunction with the HSSFC. HSSFC meeting dates are May 27-June 4. We will meet for several days during that period, the exact date to be determined.

It was suggested that the topic for the special session be broad, so as to encourage a large number of participants. Some of the ideas proposed by the Executive Committee and the general membership are:

- A topic that represents the long-time members of the Society who were at York (e.g., Hardy Grant, Israel Kleiner, Abe Schenitzer)
- Mathematics and culture
- Mathematics across cultures
- Mathematics in translation
- York University in the history of math
- Study of history of math in Canada
- Dirichlet

It was suggested that the choice of a speaker should be considered in conjunction with the consideration of a topic.

The Exec Council will consider these and any other suggestions transmitted to them before selecting a topic.

10. The President discussed the 2007 meeting, which will be a joint meeting with BSHM. Since the meeting will be held in Canada, organization is our responsibility. BSHM wishes to know time and place by summer 2006. Among the considerations are cost, attractiveness of the locale to BSHM members, convenient housing. Among locations suggested is Montreal (CRM at UQAM, Concordia). Other cities and universities will be considered. Rob Bradley and Tom Drucker will be on the planning committee and will seek local members to join them.
11. Other Business: Rob Bradley announced that he will relinquish the position of Webmaster if another member would like to assume the post, but is willing to continue in that position if no one else is interested.

Len Berggren announced that CMS has asked him to organize a CSHPM/SCHPM history session at their Winter Meeting in Victoria. Len invited members to participate.

Ed Sandifer announced that he is the history editor of the *International Journal of Mathematics and Computer Science*. He invites members to submit papers for consideration.

The meeting was adjourned at 1:40 pm.

Patricia Allaire, Secretary

Executive Council Discussion of CSHPM/SCHPM

In the absence of a quorum, an official meeting was not possible. Pat Allaire, Secretary, chaired an informal meeting at the University of Waterloo, Waterloo, ON, on June 4 at 12:30 pm. The following members were present: Francine Abeles, Amy Ackerberg-Hastings, Patricia Allaire, Antonella Cupillari, and Thomas Drucker. Amy Ackerberg-Hastings took notes. Approval of the minutes of the July 2004 Executive Council minutes was postponed.

Secretary's Report (Pat Allaire): As of June 4, 198 members have enrolled for 2005. Included are 2 Student Associates, 45 reciprocal members from BSHM, and zero from CSHPS. Forty-five members requested reciprocal membership in BSHM, 20 in CSHPS.

Proceedings Editor's Report (Antonella Cui-pillari): Deadline for contributions to 2005 Proceedings will be Sept. 1.

The Council discussed the question of requests for the Proceedings from a book dealer and the British Library, as well as a request for membership from Goettingen State and University Library. The sense is that, because the Proceedings is an internal document and the copyright to each contribution remains with the individual author, we need to decline such requests. The Goettingen Library is interested in membership for the additional purpose of receiving *Historia* and *Philosophia*, and we are not able to handle institutional subscriptions.

We will consider including a disclaimer in the Proceedings to the effect that this document is for private use and not to be placed in a library.

Bulletin Editor's Report (Tom Drucker):

- For the last two years, the Bulletin has been mailed significantly later than the designated months of November and May. A contributing factor has been Tom's heavy teaching load, a situation that is not likely to change.
- Timely production of the Bulletin is necessary for dues collection, society elections, and timely dissemination of information for our meetings, the AMS/MAA joint winter meetings, CMS meetings, etc.
- Amy Ackerberg-Hastings has agreed to accept the position of editor, with Tom assisting in the transition. Since she lacks institutional support, it will be necessary that the Society reimburse all out-of-pocket expenses.
- Material should be received by October 1 for the November issue.

The Council discussed the physical production of the Bulletin, which is handled by Eisso Atzema.

Whether the Bulletin should continue as a paper-only document or should be offered to members in electronic form is an ongoing concern. There are those who think that we should continue in paper form as a tangible benefit of membership and others who consider paper inefficient and unnecessary.

2006 Meeting: In 2006, we will be meeting as with HSSFC at York University. It was suggested that the topic for the special session be broad, so as to encourage a large number of participants. Some of the ideas:

- A topic that represents the long-time members of the Society who were at York (e.g., Hardy Grant, Israel Kleiner, Abe Shenitzer)
- Mathematics and Culture
- Mathematics in Translation

2007 Meeting: In 2007, we plan to meet jointly with BSHM, in Canada. Tom reported that June Barrow-Green of BSHM has stated that her organization will need to know time and place by summer 2006. Among the considerations are cost, attractiveness of the locale to BSHM members, convenient housing. Tom suggested that we form a committee at the AGM, to begin work immediately, so that information will be available to our membership in May 2006.

Bi-lingual contributions: The Council discussed ways of fostering the bi-lingual nature of the Society. As a step in this direction, it was proposed that contributors to the Proceedings include an abstract, and that this abstract be in both English and French.

The informal meeting was concluded at 1:15 pm.

Patricia Allaire, Secretary

New Members

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

Federica LaNave

Truckee, CA
USA

Jozsef Hadarits
Toronto, ON
Canada

Josipa Petrunic
University of Edinburgh
Edinburgh, U.K.

Reza Sebti
Toronto, ON
Canada

Michel Serfati
Paris, France

George P.H. Styan
Mc Gill University
Montreal, QC
Canada

From the Editor

As I ready files for the incumbent production editor, I wonder what I will wish I had said in my inaugural editor's message when this issue reaches your hands in November. I certainly want to thank Eisso for his efforts and again praise the outgoing editor, Tom Drucker, with a renewed appreciation of his years of service. I also feel confident in predicting that you will not find Tom's clever turns of phrase in this column henceforth, although I have asked Tom to grace us with interesting articles and reviews prepared in his newly spare time.

In my email calling for submissions, I promised our best effort to provide you a full measure of solid and satisfying holiday reading. I appreciate those who stepped forward to provide materials—you can see their names in the table of contents and throughout the issue. We will always, of course, be in need of articles for upcoming issues. I already have a couple of people on the hook for May 2006, but we need help from all to think of contributions. As a reminder, in addition to reports from the Society's officers, the Bulletin has typically included:

- Announcements and Reports
 - (a) meetings past and future
 - (b) professional and personal news
 - (c) memorial notices
 - (d) other announcements (including professional and personal milestones)
- Articles
 - (a) research notes
 - (b) works in progress
 - (c) classroom activities
 - (d) reviews

I would also be happy to run accounts of “how I learned to love the history of mathematics” and am interested in your ideas for other ongoing columns. If you know someone who would write a great article, feel free to pass the name along in confidence as I do consider arm-twisting to be among my duties. (The newbie is a former yearbook editor and can occasionally summon that “rah-rah” quality still.)

This newsletter is accompanied by a call for papers for the return of our Annual Meeting to Congress at York in May as well as the dues renewal for 2006. Planning is already getting underway for our next joint meeting with BSHM in 2007—please contact Rob Bradley and Tom Drucker to assist with arrangements.

Amy Ackerberg-Hastings

About the Bulletin

The *Bulletin* is published each May and November, and is co-edited by Amy Ackerberg-Hastings (aackerbe@erols.com) 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.