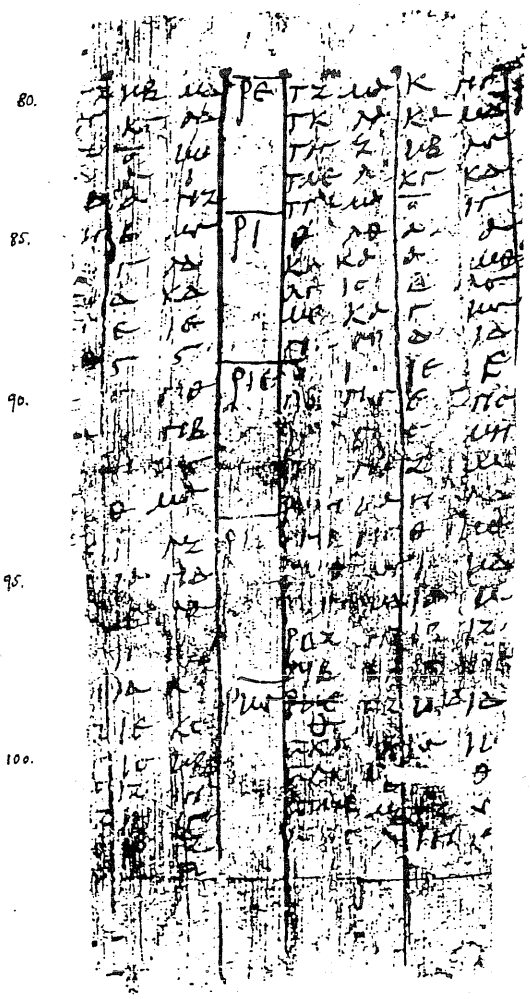
BULLETIN
CSHPM/SCHPM



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A papyrus fragment from a table for predicting lunar positions, with part of a computer reconstruction of the whole table.

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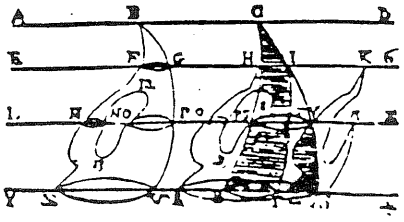


Canadian Society for History and Philosophy of Mathematics

Société canadienne d'histoire et de philosophie des mathématiq

The Bulletin is an informal medium whose aim is to inform members of the CSHPM\SCHPM, and others interested in the history and philosophy of mathematics, of happenings, meetings, current research work, publications etc. and to provide a place where one can present titbits, historical problems, quotations etc. which do not find a place in more formal media.

All material for inclusion in the Bulletin should be sent to the editor:

Craig Fraser
Institute for the History and Philosophy of Science and Technology
Victoria College
University of Toronto
Toronto, Canada M5S 1K7
E-mail address: ihpst@epas.utoronto.ca

It would be very useful if those submitting more than simple news items would send them in Word Perfect (preferred) or Microsoft Word on a 5.25" floppy disk readable on an IBM-compatible PC.

CSHPM/SCHPM

The society is international in outlook and membership. Its purpose is to unite scholars who are interested in the history and philosophy of mathematics.

Annual dues are $25 ($US 23).

If subscription to Historia Mathematica is desired the additional cost is $31 ($US28), i.e. a total of $56 ($US 51). A subscription to Historia Mathematica via CSHPM represents a considerable saving over the usual cost.

Remittances should be sent to :

M.A. Malik
Department of Mathematics, Concordia University
7141 Sherbrooke Ouest, Montréal, Québec, H4B 1R6
tel. (514)848-3232
Electronic mail address: MAMALIK@CONU1.CA

Kindly include your electronic mail address if you have one.

Annual Meeting

The 1992 annual meeting will be held at the University of Charlottetown, Prince Edward Island on May 27, 28 and 29. As everyone must know by now 1992 is the 500th anniversary of Columbus's "discovery" of America. The special subject of the meeting is ethnomathematics and the guest speaker is Michael Closs of the University of Ottawa. Professor Closs is author of numerous papers and articles on mathematics and on ancient Maya astronomy, chronology and writings. He is editor and contributor to the volume Native American Mathematics (University of Texas, 1986).

The call for papers is included at the end of this Bulletin. Programme chair is Professor Jerry Lenz of the Department of Mathematics, St. John's University, Collegeville, Minnesota 56321.

World Directory

All members of CSHPM are reminded that they should fill out the form for the

World Directory of Historians of Mathematics, included with this mailing of this Bulletin, and return it immediately to J.L. Berggren at Simon Fraser University.

Alexander Jones

The cover illustrates the work of Alexander Jones, a Canada Research Fellow at the Institute for History and Philosophy of Science and Technology of the University of Toronto.

A background in Greek and Latin accompanied by sustained interest in mathematics would seem inevitably to lead one to Greek mathematics. During most of his undergraduate years at the University of British Columbia Jones, however, assumed that mathematics and Classics were alternatives between which he had to choose. He was aware of Euclid and Apollonius; but it never entered his head to specialize in the study of ancient science until he chanced upon Neugebauer's The Exact Sciences in Antiquity. He remembers being struck by two things especially: that much that he had been taught about ancient astronomy was wrong, and that there was a lot of source material still waiting to be worked on.

Neugebauer's History of Mathematics Department was the obvious place for him to go, and he received there a kind of graduate eduction that is rare in North America: "courses" consisted of close reading of ancient and medieval mathematical texts in the original languages, often from photographs of manuscripts, and a typical assignment might be to edit and comment on an unpublished document. His own interests became clearly focused on Greek mathematics, both "pure" (his thesis was an edition of Pappus) and "applied" (astronomy, optics, geography,...).

Among the projects that Jones has taken up since coming to Toronto in 1986, the one closest to his heart is the investigation -one might almost say reconstruction- of the mathematical astronomy of the Greeks leading up to Ptolemy, say 200 B.C. to A.D.150. The medieval tradition saved for posterity practically none of the writings of this period, although some clues to what was lost can be teased out of later authors, especially Ptolemy himself. But extremely valuable information can be acquired from the astronomical and astrological papyri of Roman Egypt; and probably only a small fraction of the astronomical texts in the papyrus collections of Europe and America have yet been edited or studied. The picture of pre-Ptolemaic astronomy that is developing is a fascinating hybrid of Babylonian "arithmetical" techniques and kinematic models of the Hipparchus-Ptolemy tradition.

Selected publications:

Pappus of Alexandria. Book 7 of the Collection. Edited with translation by Alexander Jones. 2 vols. Berlin, etc. (Springer Verlag), 1986. Sources in the History of Mathematics and the Physical Sciences, 8.

"The Adaptation of Babylonian Methods in Greek Numerical Astronomy", Isis 82 (1991): 440-453.

Wesley M. Stevens

Wesley Stevens offers seminars in early medieval history and the history of science in the University of Winnipeg at graduate and undergraduate levels. He has published four books, thirteen research articles, and many other reports. He has taught in Austria, Canada, Germany, and the U.S.A. and has presented 28 public lectures in those countries as well as in England, Scotland, and the Republic of Ireland.

During 1988-1990 Professor Stevens was invited to present papers at four international conferences:

-"Sidereal time in Anglo-Saxon England," for a conference held by the new Center for Medieval Studies, University of Minnesota, 8-10 May 1990; it will be published by the Centre in a volume entitled Sutton Hoo: Voyage to the Other World, ed C.B. Kendall and P.S. Wells (1991).

-"Cycles of Time: calendrical and astronomical reckonings in early science," for the International Society for History of Time, meeting at Glacier Park, Montana, USA, 7-16 July 1989; it will be published by the Society in Time and Process, ed J.T. Fraser (1991)

-"Assisted Search and Research: queries and proposals," for the International Workshop on the Use of Computers in Medieval Manuscript Cataloguing, sponsored by the Deutsche Forschungsgemeinschaft and the Deutsches Museum, Munich, 10-12 August 1989; this paper has been published by the Institut für Geschichte der Naturwissenschaften der Universität München, as "Problems and proposals for machine readable catalogues," in The Use of Computers in Cataloguing Medieval and Renaissance Manuscripts, ed M. Folkerts and A. Kühen in Algorismus 4 (1990), 149-175.

-"Zwei Studenten auf der Reichenau und in Fulda," presented in German and illustrated with slides for the Lehrstuhl für Alte Geschichte at the Universität Passau, 19 July 1989.

In addition he organized and chaired sessions of the Symposium on "Computer Programmes for Medieval and Renaissance Manuscript Sources" for the International Congress of History of Science in Hamburg and Munich, 1-9 August 1989, which included eleven papers and two catalogues On-Line from Paris and Munich. He is editing the papers for publication this year.

Professor Stevens continues with N.L. Hahn as co-director of the Benjamin Catalogue for History of Science which now contains about 27,000 manuscript descriptions, consisting of 143,000 records of texts, approximately 30 megabytes of data. He has been asked to chair the International Committee for Manuscript Census Records and, together with T.L. Amos and H. Mayo, he published an initial report on "The establishment of a machine readable manuscript census record," Gazette du Livre Médiéval 15 (Paris,1989), 34-35.

An external appraiser for the Ontario Council on Graduate Studies, Professor Stevens visited the Centre for Medieval Studies at the University of Toronto and the Pontifical Institute for Medieval Studies at the University of Saint Michael's College, 18-21 October 1988; he

also visited the Universitá degli Studi di Trento on 9-10 August 1989 as consultant to the Istituto Trentino di Cultura in Trento, Italy. By appointment of the National Research Council of Canada, he is member of the Canadian National Committee of the International Union for History and Philosophy of Science and served as a Canadian representative to the IUHPS Division of History of Science on 5 August 1989 at Hamburg and on 7 August at Munich where he also accepted an invitation to join the IUHPS Commission on Bibliography.

In 1989 Professor Stevens was elected to the Council of the International Society for the Study of Time. In 1990 he was elected to the CCSR: Corporation canadienne des sciences religieuses, representing the Association canadienne des études patristiques/Canadian Society of Patrisitic Studies.

Very important to Professor Stevens is public service: he completed five years on the Board of Governors of the Winnipeg Art Gallery and ten years on the Board of Directors of the Manitoba Chamber Orchestra. The latter expanded, while he was President of the Board, from five annual concerts to twenty-six, five tours, two national festivals, and sixteen national broadcasts; he is proud to note that a budgetary deficit was eliminated, professional office and staff established, and surpluses achieved annually during his three years in office. He has completed a two year term on the Manitoba Arts Council and is now President of the Winnipeg Bach Festival. His lectures have also allowed him to enjoy many musical performances in Winnipeg and overseas, including several wonderful concerts from the great organ of the Passauer Dom.

Minutes of the 1991 Annual Meeting

May 28, 1991, Queen's University, Kingston, Ontario

1. President's Remarks. Craig Fraser thanked: Erwin Kreyszig for his fine work as programme chair for the meeting; Robert Thomas for a solid job editing the proceedings of the Victoria meeting; Joan Geramita for her capable handling of the local arrangements; and Wesley Stevens for serving as CSHPM's representative to the Canadian National Committee of the International Union for History and Philosophy of Science. Fraser informed the meeting that CSHPM had been awarded a $400 grant from the Canadian Federation of the Humanities to support the theme session on women in mathematics.

2. Secretary's Report. Abdul Malik pointed out that because of various costs - the expense of the proceedings and the expense of the visiting speaker- it had become necessary to increase the annual dues of the society. He moved that it be raised from $21 to $25. The motion was seconded by Israel Kleiner and passed unanimously. Thomas Archibald moved that the fee for the category unemployed/retired/student be $15. Louis Charbonneau seconded the motion and it was passed unanimously.

3. 1992 CSHPM Meeting. Fraser announced that the 1992 meeting will be held May 28-30 at the University of Charlottetown in Prince Edward Island. The special theme for the meeting is ethnomathematics. Lee Lorch spoke in support of the importance of this theme,

and suggested that advance notice of the session be sent to members of the Department of Mathematics at the University of Prince Edward Island. Fraser thanked Professor Lorch for this suggestion.

4. ICME 7 Meeting 1992. Louis Charbonneau reported on plans to make a presentation at ICME 7 in Québec next August on the history of Canadian mathematics. He invited interested members to join him in this project. Victor Katz agreed to participate in this initiative.

5. Fraser called upon Norbert Schlomiuk to discuss his initiative to establish a summer workshop on the history of mathematics. It is envisaged that the first workshop will take place in the summer of 1993 at the University of Montréal. Professor Schlomiuk will undertake a feasibility study to determine sources of institutional and financial support. The project has the support of Fraser's Institute at the University of Toronto.

6. Other Business. Robert Thomas reported on his discussions with Dr. Fang concerning the editorship of Philosophia Mathematica. This subject was an item of discussion at the meeting of the executive of CSHPM. It is envisaged that under Professor Thomas's direction the journal would receive the support of CSHPM.

7. Results of the ballot: Fraser 33 (President); Archibald (Vice-President) 32; Malik (Secretary-Treasurer) 33; Muldoon (Councillor) 31; and Tattersall (Councillor) 30. Victor Katz and Norbert Schlomiuk will continue to serve their terms as councillors.

8. Meeting adjourned.

Update

In the last edition of the Bulletin (April 1991) mention was made of the special issue of Interchange (V.21,1990) titled "Creativity, Thought and Mathematical Proof". Two papers were for editorial reasons actually published in number 2 of Volume 21 of this journal:

Liliane Beaulieu, "Proofs in Expository Writings: Some Examples from Bourbaki's drafts," pages 35-45;

Gregory H. Moore, "Proof and the Infinite," pages 46-60.

The papers are preceded by a short introduction by Ian Winchester.

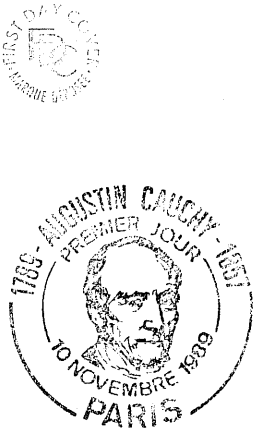
Garland Publishing

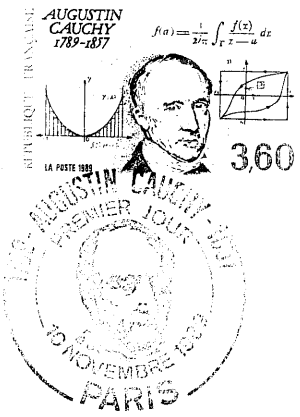
Several members of CSHPM -Alan C. Bowen, Alexander Jones, J.L. Berggren and R.S.D. Thomas- have contributed to recent Garland publications on the history of classical Greek exact science. See the advertisement at the end of this Bulletin. Books should be ordered from Garland Publishing 1000A Sherman Avenue, Hamden CT 06514 Tel: (203)281-4487, Fax:(203)230-1186. Toll-free number for orders is 1-800-627-6273.

HPM Pre-ICME 7 Toronto Meeting 1992

The quadrennial international HPM meeting will be held August 12 to 14 at

Victoria College of the University of Toronto. The organizer for the meeting is Florence D. Fasanelli, Chair SUMMA, The Mathematical Association of America, 1529 18th St. N.W., Washington, D.C. 20036 USA. Local arrangements are being handled by Israel Kleiner and Craig Fraser. Individuals wishing to present papers should contact Florence Fasanelli.





Canadian Society for History and Philosophy of Mathematics
Societe canadienne d'histoire et de philosohie des mathematiques

Financial Statement (January 1, 1990 - December 31, 1990)

Submitted to the Social sciences and Humanities Research Council of Canada

CREDIT

Balance	$ 160.05
SSHRC Administrative Grant	1361.00
SSHRC Travel Grant	1361.00
Membership Dues (*)	6097.07
Bank Interest	6.12
	$8985.24

* A portion of 1991 dues is also included.

DEBIT

Travel subsidy (**)	$1433.17
CFH Dues	545.00
Historia Mathematics	2023.80
1990 Victoria Meeting	1525.94
Bulletin	789.74
Secretary Service	350.00
Misc.(Postage, supplies, etc.)	105.44
	$6773.09
Balance	$2212.15

** Detail enclosed

K. O. May Fund Balance $1700.00 + 644.87 = $2344.87

SEVENTH INTERNATIONAL CONGRESS ON MATHEMATICAL EDUCATION
August 17-23, 1992

The Seventh International Congress on Mathematical Education (ICME-7) will be held at Université Laval in Québec City, Canada from August 17 to 23, 1992. The Second Announcement is now available from:

Congrès ICME-7 Congress
Université Laval
Québec, QC, Canada G1K 7P4

Telephone: (418) 656-7592
Fax number: (418) 656-2000
E-Mail address: ICME-7@VM1.ULAVAL.CA

It contains information on all aspects of ICME-7 including registration, accommodation, and an application form to make a short presentation.

ICME-7 will provide participants with the opportunity to learn about recent developments in mathematics education around the world and to be introduced to innovations and recent research on the learning and teaching of mathematics at all levels. The central feature of the scientific program is a set of 23 Working Groups each designed to involve participants in the active study of a selected aspect of mathematics education and to provide an international up-to-date context for study of that aspect. Each Working Group will meet for four 90-minute sessions.

Other activities will include several plenary talks, lectures, topic groups, study groups, national presentations, short presentations in the form of posters or videotapes or computer software, projects, workshops, films, as well as exhibitions of textbooks, software and other types of materials. A special half-day Miniconference on Calculators and Computers will be held at the beginning of the congress. Finally, various social and cultural events are planned for the duration of the congress.

Early registration is encouraged. The schedule of registration fees provides for significant savings for those who preregister by December 15, 1991. The deadline for those applying to make a short presentation is January 31, 1992. Accommodation requests will be received up to July 1, 1992 although it is advisable to make reservations much earlier.

Full program details will be listed in the Third Announcement which will be available in April 1992 and will be sent to those whose registration forms and payment are received by June 15, 1992. Participants who register after this date will receive the program during on-site registration.

SEPTIÈME CONGRÈS INTERNATIONAL SUR L'ENSEIGNEMENT DES MATHÉMATIQUES
17-23 août 1992

Le Septième Congrès international sur l'enseignement des mathématiques (ICME-7) aura lieu à l'Université Laval, dans la ville de Québec (Canada), du 17 au 23 août 1992. La deuxième annonce est maintenant disponible à l'adresse suivante :

Congrès ICME-7 Congress
Université Laval
Québec, QC, Canada G1K 7P4

Téléphone: (418) 656-7592
Télécopieur: (418) 656-2000
Adresse électronique: ICME-7@VM1.ULAVAL.CA

Elle contient des informations générales sur ICME-7, entre autres sur l'inscription et l'hébergement, ainsi qu'un formulaire pour soumettre une communication brève.

Le Congrès ICME-7 permettra aux participants de s'informer des développements récents en éducation mathématique au plan international et de prendre connaissance d'innovations et de recherches récentes concernant l'apprentissage et l'enseignement des mathématiques à tous les niveaux. La composante majeure du programme scientifique est un ensemble de 23 Groupes de travail favorisant chacun l'étude active d'un aspect particulier de l'éducation mathématique dans un contexte international d'actualité. Chaque Groupe de travail se réunira pendant quatre séances de 90 minutes.

Au programme figurent également des conférences plénières, des exposés, des groupes thématiques, des groupes d'étude, des présentations nationales, des communications brèves sous forme d'affiches ou de bandes vidéo ou de logiciels, des projets, des ateliers, des films, de même que des expositions de livres, de logiciels et d'autres matériels didactiques. Au début du Congrès, une demi-journée sera spécialement consacrée à un Mini-congrès sur les calculatrices et les ordinateurs. De plus, un certain nombre d'événements socio-culturels sont prévus au programme.

Il est recommandé de s'inscrire tôt. Les personnes qui s'inscriront avant le 15 décembre 1991 bénéficieront d'une réduction substantielle. La date limite pour soumettre une proposition de communication brève est le 31 janvier 1992. Les demandes de réservation de chambre seront acceptées jusqu'au 1er juillet 1992; il est cependant conseillé de faire des réservations beaucoup plus tôt.

La troisième annonce sera disponible en avril 1992 et comprendra le programme détaillé du Congrès. Elle sera envoyée aux personnes dont les inscriptions auront été reçues avant le 15 juin 1992. Les participants s'inscrivant après cette date ne recevront le programme que sur les lieux du Congrès.

UNIVERSITY OF TORONTO
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28 August 1991

REBELS WHO COUNT

by Kenneth O. May (1915-1976)

This series of videocassettes, in which Professor May discusses with some of his colleagues ten notable mathematicians and their work, is again available. It was first presented on TV Ontario and was intended for a general audience, but it will also interest students of the history and development of mathematics.

Due to complex copyrights, the series is not available from TV Ontario, nor may it be duplicated, publicly broadcast, nor shown commercially. However, through an arrangement with TV Ontario and with Professor May's widow, the Media Centre of the University of Toronto can now provide sets of this series to educational institutions for educational use.

These tapes are copies of old originals which were damaged in some sections, so they will not themselves be totally clear throughout.

The set is $100 (Canadian), plus $5.00 packing and shipping, and applicable taxes. Individual tapes are not available. Orders may be sent in writing to

The Distribution Manager
The Media Centre
University of Toronto
121 St. George Street
Toronto, Ontario M5S 1A1
Canada

See over for a brief description of each film.

JZB/CGF:cmg
28viii91

REBELS WHO COUNT
A series of 10 videocassettes, 30 minutes each, black & white, VHS 1970, by

Kenneth O. May (1915-1976)
Institute for the History and Philosophy of Science and Technology, and
Department of Mathematics, University of Toronto

Beloved of the gods: The life and work of Evariste Galois, originator of group theory. Non-technical explanation of groups and their use in solving higher degree equations. Galois' revolutionary political activities.

Bridge to the infinite: Georg Cantor, nineteenth-century founder of set theory. A simple explanation of sets, with sketches of such examples as Cantor's diagonalization proof that the rational numbers have the same cardinality as the integers.

Hungarian rhapsody: Janos Bolyai and his revolutionary discovery of non-Euclidean geometry. Includes an interview with Stephen I. B. Rogoczei (now in the Department of Mathematics, Trent University).

Irish triumph: William Rowan Hamilton's contributions to optics, light and dynamics, emphasizing his work on complex numbers and his development of quaternians. Interview with Thomas L. Hankins (now in the Department of History, University of Washington at Seattle).

Lewis Carroll, Alice and Dodgson: The English mathematician Charles Lutwidge Dodgson (pseudonym: Lewis Carroll), his work on symbolic logic and his literary career. Interview with S. P. Rosenbaum and J. E. Chamberlin (Department of English, University of Toronto).

Peirce: genius or crank: Charles Sanders Peirce, his contributions to logic, philosophy and mathematics. Interview with David Savan and Thomas A. Goudge (Department of Philosophy, University of Toronto).

Pisan rebel: Galileo Galilei's mathematical contributions. Interview with Galileo specialist Stillman Drake (IHPST, University of Toronto).

Prince of mathematicians: Karl Friedrich Gauss' work in astronomy, number theory, physics, and geometry, with an overview of such inventions, including the electric telegraph.

Ramanujan: Srinivasa Ramanujan's life and his contributions to analytical number theory. The influence of Hinduism on his mathematics. Interview with Dale Riepe (now in the Department of Philosophy, SUNY at Buffalo).

Russell: the rebel aristocrat: Bertrand Russell as mathematician, philosopher, radical and humanist, with emphasis on *Principia Mathematica* and his work on foundations of mathematics. Interview with John Slater (Department of Philosophy, University of Toronto) and Kenneth Blackwell (Russell Archives, McMaster University).

NEW SERIES! 15% OFF ALL STANDING ORDERS

SOURCES AND STUDIES IN THE HISTORY AND PHILOSOPHY OF CLASSICAL SCIENCE

General Editors
Alan C. Bowen, IRCPS
Francesca Rochberg-Halton, University of Notre Dame

The Institute for Research in Classical Philosophy and Science and Garland Publishing, Inc., are pleased to announce a new series that focuses on the classical sciences (mathematics, astronomy, harmonics, optics, mechanics, new biology) in Western and Near Eastern culture from antiquity to the 1700's, the time of Newton and the beginning of the modern era. The books in this series make fundamental texts in the history of the classical sciences 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 series contains editions and English translations of scientific treatises belonging to the classical tradition. These texts will be supplied with general introductions and philological/technical commentaries, as well as annotated bibliographies and lexica. The series presents the latest results of research and interpretation in analyzing works in this tradition, their place in their contemporary intellectual culture, and their impact on subsequent philosophical and scientific thinking.

The books in these series are intended for readers interested in the history and philosophy of science in the Near Eastern and Greco-Roman worlds and their legacy to the modern era, as well as in intellectual history and philology. Scholars are invited to submit proposals and manuscripts to: Series Editors, Institute for Research in Classical Philosophy and Science, 3 Nelson Ridge Road, Princeton, N.J. 08540.

MODELS AND PRECISION

The Quality of Ptolemy's Observations and Parameters

John Philips Britton NEW

This work addresses the ancient and widely held view that Ptolemy was an inferior practical astronomer who manipulated observations to fit his models. In examining the solar and lunar observations found in *Almagest* and the parameters of the models ostensibly derived from them, Britton finds scant evidence to support this view. He that Ptolemy's lunar observations are no less accurate than those of his predecessors, and the individual errors of the lunar observations are as a whole consistent with what would be expected from naked eye observations, and that the parameters derived from these observations are in every instance more accurate than could be expected given the errors of the observations. The author concludes that Ptolemy had more observations at his disposal than he reports, and that he was more skilled than has been recognized at deriving accurate parameters from them.

c.272 pages ISBN 0-8153-0215-0 c.$48
December 1991
Volume 1, Sources and Studies in the History and Philosophy of Classical Science

SCIENCE AND PHILOSOPHY IN CLASSICAL GREECE NEW

Edited with a preface by Alan C. Bowen

This collection of 12 previously unpublished essays is devoted to the general question of science and its interaction with philosophy in the Greek world during the fifth and fourth centuries B.C. The papers address issues concerning the origins and explanatory structure of science, as well as problems peculiar to the mathematical sciences (arithmetic, geometry, harmonics, astronomy) and to natural history and medicine. The contributors include: Andrew D. Barker, J. L. Berggren, Alan C. Bowen, David H. Fowler, Charles H. Kahn, Wilbur R. Knorr, James G. Lennox, G. E. R. Lloyd, Alexander P. D. Mourelatos, Ian Mueller, Joseph Owens, and Robert G. Turnbull.

c.360 pages ISBN 0-8153-0214-2 c.$58
November 1991
Volume 2, Sources and Studies in the History and Philosophy of Classical Science

PTOLEMY'S HANDY TABLES

The Astronomical Tables of *Codex Vaticanus Graecus 1291* NEW

Transcribed and introduced by William D. Stahlman, Foreword by Alexander Jones

Ptolemy intended his *Handy Tables* to represent his mature system of celestial motions in the most convenient form for astronomers and astrologers, and during late antiquity and the middle ages these tables were widely employed and often revised. This transcription of one of the earliest extant recensions of the *Handy Tables* will be a tool of great value for students of ancient and medieval astronomy.

c. 230 pages ISBN 0-8153-0216-9 c. $43
September 1992
Volume 3, Sources and Studies in the History and Philosophy of Classical Science

EUCLID'S *PHAENOMENA* NEW

A Translation and Study of a Hellenistic Treatise in Spherical Astronomy

Translated and introduced by J. L. Berggren and R. S. D. Thomas

The transformation of astronomy from a search for celestial signs and omens to an exact science was a gradual one. An important step in this change was the introduction in the fourth and third centuries B.C. of spherical geometry to model the motion of the stars. Currently extant from this period are three works—two by Autolycus of Pitane and one by Euclid. Though Autolycus' treatises are available in English, French, and German translations, the only modern version of Euclid's *Phaenomena* has until now been a long outdated and rare German translation. This extraordinary omission is now filled by this publication.

Beginning with an introductory essay that explains the background of the subject, this book sets the treatise in its scientific context. In particular, the authors elucidate the problem that Euclid sets out to solve—something his text takes for granted. Then, from Menge's critical edition of the Greek text, they supply a complete translation in English of its two recensions with accompanying notes to aid the modern reader. Using modern terminology they explain Euclid's introductory essay as well as the subsequent 18 theorems and their proofs. The book concludes with a glossary of astronomical and geometrical terms, and an index.

c. 208 pages ISBN 0-8153-0493-5 c. $40
September 1992
Volume 4, Sources and Studies in the History and Philosophy of Classical Science

CALL FOR PAPERS

APPEL DE COMMUNICATIONS

Canadian Society for the History and Philosophy of Mathematics

Société canadienne d'histoire et de philosophie des mathématiques

Annual Meeting / Réunion annuelle
University of Prince Edward Island
Charlottetown, Prince Edward Island
May 28 - 30 mai 1992

Special Session spéciale
Ethnomathematics / Ethnomathématiques
Invited speaker / Conférencier invité : Michael P. Closs, University of Ottawa

Members are invited to present a paper on any subject related to the history of mathematics, its use in the teaching of mathematics, the philosophy of mathematics. Talks will be of thirty minutes' duration, but some longer slots can be made available if necessary.

Papers contributed to the special session will be presented on the first day, May 28.

Send your title and an abstract by

February 28, 1992, to:

Les membres de la SCHPM sont priés à présenter une communication portant sur l'histoire des mathématiques ou sur son utilisation dans l'enseignement, sur la philosophie des mathématiques, ou tout sujet connexe. Trente minutes seront allouées pour chaque présentation; cependant nous réservons l'option d'accommoder quelques présentations plus longues si c'ést nécessaire.

Les communications contribuées à la session spéciale seront présentées au premier jour, le 28me mai.

Veuillez envoyer le titre de votre communication, ainsi qu'un résumé bref, avant

le 28me février 1992, à

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