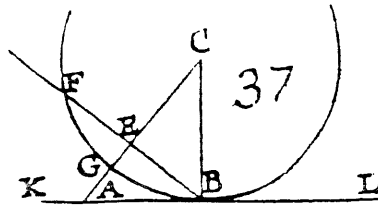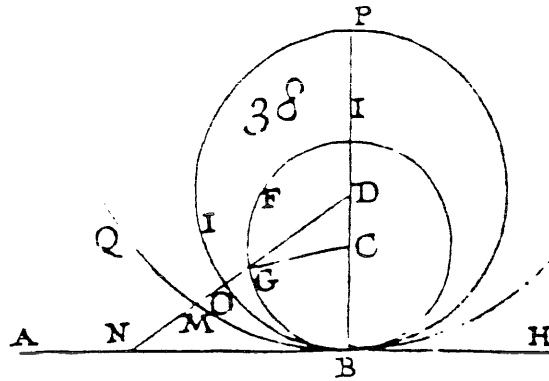# BULLETIN
CSHPM/SCHPM

Euclid's approach to the angle of contingency: an actual infinitely small quantity, from Bošković, *Elementorum universae matheseos*, Vol. I (Rome, 1752), fig. 37
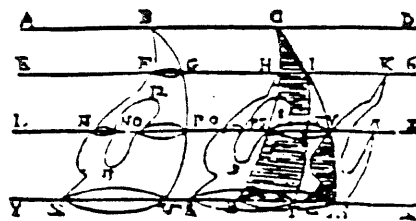

Newton's approach to the angle of contingency: an infinite process, from Bošković, *Elementorum universae matheseos*, Vol. I (Rome, 1752), fig. 38.

Boškovic's methodological dilemma:
Euclidean or Newtonian approach to the angle of contingency

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 tidbits, historical problems, quotations etc. which do not find a place in more formal media.

** NOTE** Roger Herz-Fischler will be on sabbatical leave in 1989-1990 and so material should be sent to his home address, as follows, and not to Carleton University (the electronic mail address is however still valid):

Roger Herz-Fischler
340 Second Ave.,
Ottawa, Ontario, K1S-2J2.
home tel. (613) 563-0350
Electronic mail address: <ROGERH-F@CARLETON.NETNORTH>

The preferred method is via electronic mail because it renders retyping unnecessary and avoids mail delays of up to plus infinity. . The second best method is to send an IBM compatible diskette (unformatted = ASCII), via the mail. The mention of these methods should not however discourage those writing with quill and ink, à la Babylonian or by other methods. It would be appreciated if those submitting more than simple news items would send it them in final typed form so that the text can be reproduced as is.

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 $15 ($US 11).

If a subscription to Historia Mathematica (the official journal of the society) is desired the additional cost is $29.50 ($US 22) i.e. a total of $44.50 ($US 33). A subscription to Historia Mathematica via CSHPM represents a considerable saving over the usual cost.

Remittances should be sent to:
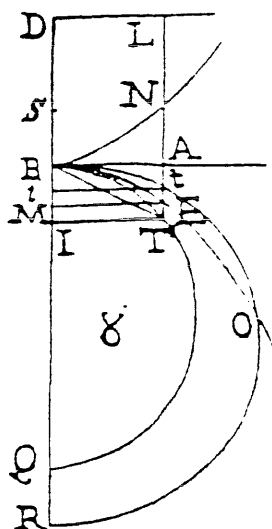
M.A. Malik,
Department of Mathematics, Concordia University,
7141 Sherbrooke Ouest, Montréal, Québec, H4B-1R6
tel. (514)848-3232
Electronic mail address: <MAMALIK@CONU1.NETNORTH>.

Kindly include your electronic mail address if you have one.

The annual meeting to be held on May 29, 30 at Laval will have a special session on Eighteenth Century Mathematics (details of the programme are given later on in this issue). To reflect this topic the cover and our "Current Work and Interests" section deal with an important mathematical writer of that period.

COVER

In the article on Rudger Boškovič (1711-1787) in the Dictionary of Scientific Biography, Ivica Martinović writes that "Boškovič was perhaps the last polymath to figure in an important way in the history of science..." The figures on the cover are taken from professor Martovic's article "Boškovič's Choice of Method at the Beginning of his Mathematical Career", Dijalektika [the journal for methodologico-philosophical problems of the mathematical, natural and technical sciences of the University of Beograd] 23(1988), 57-71. Boškovič's choice was over the use of geometric vs. analytic methods. As we learn from the article Boskovic's final conclusion involved both approaches. For more on Boskovic see the DSB article and the book Roger Joseph Boscovich S.J., F.R.S., 1711-1787, Studies on his Life and Work on the 250th Anniversary of his Birth, London, 1961.

Approximation of the infinitely small arc of a curve to the arc of a circle, in Boškovič, *De circulis osculatoribus* (Rome, 1740), fig. 8.

CURRENT WORK AND INTERESTS

Ivica Martinovic is a professor of mathematics and informatics at
the University of Split in Yugoslovia. He has been studying
Boskovic's work in the Roman period 1740-1756 for a decade. Dur-
ing the summer of 1987 Professor Martinovic taught a seminar on
Boskovic's philosophy of science, particularly on Boskovic's
understanding of continuity and infinity at the Institute for
Philosphy in Zagreb. This summer at the ICHM symposium in Hamburg
on Historgraphy and the History of Mathematics he will be giving
an invited paper entitled "The Genesis of Boskovic's Contribution
to Mathematics".

Those readers wishing more details on professor Martinovic's work
may contact him at:

                    University of Split
                    Bulevar Lenjina 4
                    Yu-50000 Dubrovnik
                    Yugoslovia

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Len Berggren, the president of the CSHPM/SCHPM, provided the
following report:

    The second meeting of the Board of Directors of the Canadian
Federation for the Humanities was held in Ottawa, Jan. 27, 1989,
the feature presentation being the talk by Dr. Paule Leduc, the
recently-appointed President of SSHRC. Her opening statement,
that "SSHRC's role is that of facilitator of research. It is the
servant and not the master of the Federations (CFH and SSFC)."
got her off on the right foot with many of the delegates from the
different organizations represented there.
    Dr. Leduc first addressed the topic of the Courtney Report,
whose recommendations on how SSHRC should operate in awarding
Research Grants are being awaited with considerable interest by
the humanist community. It is clear that SSHRC will adopt more
of an NSERC type model, in going to program-based funding, where
the track-record of the investigator is a major factor, from the
current project-based system, in which the viability of the
project is the major consideration. They expect the report of the
Courtney committee this summer and will leave about a year to
consider procedures for implementing the recommendations, so the
first effect of the changes will not be felt until the 1990-91
competitions.
    A bomb that SSHRC let drop on the CFH late in the fall was
the Ledwell committee report that says that in order for there to
be "greater participation" by members of CFH in financing the
activities of the organization SSHRC will be transferring 2% per
annum from its Secretariat Budget to its matching budget each
year for the next five years. This will mean that CFH will have
to be much more active raising funds (probably from its member

organizations, like us) to get that 2% back, as matching money. Then, if CFH has some success along these lines, SSHRC might considering increasing CFH's budget (called "opening the envelope" in Ottawa-ese).

There was a lot of talk about the new Joint-Ventures Programme, where $900,000 will be spent on something nobody is sure of yet. The idea is that SSHRC might jointly fund some research with, say Ministry of Northern Affairs or Health and Welfare. It will be a competitive programme, submissions being invited and reviewed by a peer-review system.

Returning to the theme of SSHRC and the "average researcher" she said that more flexibility will be allowed in the use of the funds awarded under the Research Grants Programme, and that one will not have to submit such a detailed budget as at present. She also said that she hoped to notify the successful applicants of the fact that they have been given awards more quickly than is the case now, where 36 steps are currently needed from decision to announcement!

On other matters, not part of Dr. Leduc's remarks, there was a brief overview of the major report CFH had done for SSHRC surveying the current state and possible new thrusts in a Canadian Research Strategy for Applied Ethics. A full copy of the 344 page report was circulated at the meeting and the principal investigator, Dr. Michael McDonald was there to talk about the report. Also presented was a very full account of the CFH-sponsored National Forum on the Un/Under-Employment of Humanities Graduates and the Development of New Professional Opportunities. Those of you who follow such things will have noticed a pretty full account of the Forum in the CAUT Bulletin.

Finally, of some concern to me, at a time when CFH's budget is under pressure (see remarks on Ledwell Report, above), was the decision to support the Association of Canadian University Presses' request to SSHRC for a 29% increase in the Aid to Scholarly Publications Programme's book budget. Dr. Robinson (President of CFH) and Dr. C. Andrew (President of SSFC) had written to Dr. Leduc in November telling her of their support for the request for more money, and in reply Dr. Leduc, though sympathetic, pointed out "The Federations will no doubt wish to consider the relative priority which they attribute to the support of scholarly manuscripts in relation to the support of independent research, of the training of researchers and of the support of infrastructure." Unfortunately, there was no evidence that serious thought had been given to this matter, and it looked as if, instead, CFH and SSFC had just become lobbying agents for the Association of Canadian University Presses.

There were, of course, other matters discussed, and further information about the meeting is available from the CFH, 151 Slater, Suite 407, Ottawa K1P 5H3.

INSTITUTIONS

Plans are well advanced for the establishment of the "Lewis Carroll Birthday Trust" in Daresbury, England where he was born

in 1832. More inforamtion can be obtained from John R. Wilcox-
Baker, Coombe Bank Cottage, Snatt's Road, Uckfield, East Sussex,
TN22 2AN, England.

EDUCATION

The Graduate School and University Center of the City University
of New York has a Ph.D. program in history with Specialization in
the History of Science. Among the faculty members are Joseph
Dauben (history of mathematics, the scientific revolution);
Richard Lemay (Islamic and Medieval science); Stephen Spielman
(Probability and the foundations of statistics). For details
contact: Professor Abraham Ascher, Executive Officer, Ph.D.
Program in History, Graduate School, The City University of New
York, 33 West 42 Street, New York, N.Y., USA 10036.

JOURNALS

Philosophia Mathematica will award a prize of $1000 for the best
paper submitted to it which is related to any or all of the
following topics: The topological vs. the algebraic; Ethics and
mathematics; Sociology or Social Theory of Mathematics, Philos-
ophy of Mathematics in general.
Membership in the Association for Philosphy of Mathematics,
including a subscription to Philosophia Mathematica is available
to members of the CSHPM/SCHPM for $15.
For details write to Professor J. Fang, Old Dominion University,
Norfolk, VA, USA 23529-0083.

Hindsight is available from The Golden Hind Press, Suite 232,
2490 Black Rock Turnpike, Fairfield, CT. USA 06430.

Apeiron, a journal for ancient philosphy and science publishes
three issues each year; two regular issues and one special issue.
The editorial office is at the Department of Philosophy 4-108
Humanities Centre, University of Alberta, Edmonton, Alberta, T6G
2E5. The Executive editor is Roger Shiner.

La revue Sciences et Techniques en Perspective est produite par
l'équipe de recherches Sciences, Techniques et Sociétés de
l'Université de Nantes. L'editeur est Jean Dhombres, Institut de
Mathématiques et d'Informatique, 2,rue de la Houssinière, 44072
Nantes Cedex, France. Parmi les articles récents notons:
M.J. Durand, "Le travail mathématique de George Peacock", 11
(1987).
J. Dhombres, M. Pensivy, "Esprit de rigueur et présentation
mathématique au XVIIIè siècle: le cas d'une démonstration
d'Aepinus", 11(1987).

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Presented to Asger Aaboe, (J.L. Berggren, B. Goldstein ed.),
Copenhagen, University Library, 1987.

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Intelligencer, 9(1987), 68-70.

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Greek, Archives Internationales d'Histoire des Sciences,
38(1988), fasc. 120, 150-51.

Hoyrup, Jens. "Algebra and Naive Geometry, An Investigation of
Some Basic Aspects of Old Babylonian Mathematical Thought",
Institute of Educational Research,Roskild University Centre, DK-
4000, Denmark.

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Laherprüung gescheitart wäre", Der Mathematikunterricht 35(1989),
13-29.

Schnitzer,Abe. (translation of B.A. Rosenfeld, A History of Non-
Euclidean Geometry / Evolution of the Concept of a Geoemtric
Space, Springer-Verlag, 1988.

CITATIONS/QUOTATIONS

An expression of BOURBAKI's opinion on transfinite numbers:

"Une chose est à noter, qui semble bien décidée, on abandonne les
alephs et les ordineaux transfinis à leur triste sort; qu,ils
dorment en paix et que personne ne s'en serve jamais"

This passage is quoted from the minutes of a Bourbaki meeting
which was held in Paris on December 16,1935. At that point in
time, Bourbaki had already produced a short draft on Set Theory
and the question arose whether the next draft should also include
an exposition of cardinals and ordinals. The above quote
summarizes Bourbaki's answer to that question.

The quotation was communicated by Liliane Beaulieu. Liliane
Beaulieu is completing a thesis at the Université de Montréal, on
Bourbaki Beyond the Myth: A History of the Group and its Work
(1934-1955).

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"I hold Mr. d'Alembert to be a great mathematician in abstractis,
but when he makes incursions into applied mathematics, I lose all
of my esteem... and it would better for the true physics if there
were no mathematics on the earth" - Daniel Bernoulli in a Jan.
1750 letter to Euler. (kindly sent in by Abe Schnitzer who cites
[Fuss], 1943 as the source.)