

dev "History of Mathematics in Canada". In (Eds.) Joseph W. Dauben  
 the and Christoph J. Scriba, *Writing the History of Mathematics: Its*  
 the *Historical Development* (2002), pp. 285-289. This volume is part  
 the of the book series: *Science Networks. Historical Studies* (SNHS,  
 hist volume 27). Birkäuser Verlag, Basle, Boston, Berlin.  
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## 15.5 Canada

CRAIG G. FRASER

### 15.5.1 Before 1966

Before the 1960s the history of mathematics was not an active area of study in Canada. Although sometimes included as a topic in the teaching of secondary and college mathematics, particularly in the province of Quebec, it was cultivated primarily as a private pursuit or as a subject of popularization. In Quebec, however, Jesuit teachers of mathematics and astronomy traditionally included some history of mathematics in their teaching. In the 1920s the mathematician ADRIEN POULIOT (1896–1977) used history to help popularize this subject. LÉON LORTIE (1902–1986), a chemist and polymath, published in 1955 an historical account of the teaching of mathematics in Quebec [LORTIE 1955]. From 1959 to 1962, when the historian of mathematics CHRISTOPH J. SCRIBA (\*1929) was a member of the mathematics department at the University of Toronto, he taught courses on mathematics with a strong historical emphasis. He also lectured on history of mathematics in courses and at meetings given at the Ontario College of Education, all of which helped to prepare the way for a more permanent presence for history of mathematics in Canada.

Following the arrival of KENNETH O. MAY (1915–1977, **B**) in Toronto in 1966, history of mathematics became established as an organized academic discipline. From the base MAY established the field has grown and developed over the past three decades, reflecting within the Canadian context the larger international growth of interest in the history of science [LEVERE 1988].

It is also of note to mention that the distinguished American historian of mathematics, RAYMOND CLARE ARCHIBALD (1875–1955, **B**), began his career in Canada, as a teacher and professor of mathematics in the Maritime provinces. Although he left Canada in 1908 at age 32 to take up a position at Brown University, Providence, RI (USA), he retained links throughout his life with Mount Allison and Acadia Universities (see Section 15.4.2).

### 15.5.2 Kenneth O. May

In the decade following his graduation KENNETH O. MAY carried out research in mathematical economics at Carleton College in Northfield, Minnesota. He also became active in the developing field of mathematics education. His *Elements of Mathematics* (1959) was a prominent college textbook in the "New Mathematics" tradition. The emergence of his interest in the history of mathematics coincided with a growing concern for the subject of bibliography and information retrieval. These two subjects would eventually be joined in his 1973 *Bibliography and Research Manual of the History of Mathematics* [MAY 1973].

In 1966 MAY moved from Northfield, Minnesota, to the Department of Mathematics of the University of Toronto. In that year an advisory committee to the president of the University under the directorship of Professor JOHN ABRAMS (1914-1981) recommended the establishment of an institute to promote research and teaching in the history and philosophy of science. Responding to the rise of history of science in the United States and Europe, the committee's report acknowledged the internal resources that already existed in this field at the university and the need for a formal body to coordinate further teaching and research. When the Institute for the History and Philosophy of Science and Technology was established within the School of Graduate Studies in 1967, KENNETH MAY was one of its founding faculty members. He participated actively in the Institute, serving as its director from 1973 to 1975, and ensured that history of mathematics had a prominent place in the first decade of its existence. By the middle seventies Toronto had become an active center for the history of mathematics, attracting numerous doctoral students and sabbatical visitors. MAY died unexpectedly of a heart attack on December 1, 1977, at age 62.

MAY published on a variety of historical topics, and wrote a masterful article on GAUSS for the *Dictionary of Scientific Biography* [MAY 1972]. However his lasting legacy lies in another direction. In a memorial tribute his student CHARLES JONES (\*1939) wrote [DRAKE 1978, 5] "his major contributions [to the history of mathematics] were clearly in the yeoman's services he rendered to the discipline. His exceptional ability to organize enabled him to make valuable contributions as an editor and compiler, and it will be those contributions that will mould the conception that the profession will come to have of Ken May as a historian of mathematics." Along with RENÉ TATON (\*1915) and A. P. YOUSHEVICH (1906-1993, B), MAY called for the creation of an international journal of the history of mathematics at the Twelfth International Congress of the History of Science in Paris in 1968. In order to obtain financial support from the Canadian government he proposed the formation of a national Canadian association, a body which became established in 1976 as the Canadian Society for the History and Philosophy of Mathematics (CSHPM).

The journal *Historia Mathematica* itself began publication in 1974 under his editorship (cf. [DAUBEN 1999]). During this period he also published his *Research Manual* [MAY 1973], a detailed guide for students explaining every detail about

how to organize and undertake scholarly research, including a comprehensive bibliography about mathematicians, mathematical topics, time periods, universities, organizations, and historiography. MAY was an enthusiastic pioneer in the development of computer-aided information retrieval, a project in which he was assisted by a host of student assistants. His *Research Manual* remains today an indispensable reference tool for historical investigation. It provided inspiration for JOSEPH DAUBEN's collaborative *The History of Mathematics from Antiquity to the Present: A Selective Bibliography* [DAUBEN 1985], a work dedicated to the memory of MAY.

In 1969 MAY became chair of the fledgling International Commission on the History of Mathematics, a position he retained until shortly before his death. The Commission was to provide a "common House of Learning for all historians of mathematics in which there is room for everybody doing serious research" (C. J. SCRIBA, as quoted in [DRAKE 1978, 9]). "His dream was that of a world community of historians of mathematics working together unanimately regardless of race, political conviction or other non-scientific barriers" [ibid.]. To advance this goal, MAY prepared his *World Directory of Historians of Mathematics* (1972), a work containing more than 500 names and listing the major interests of each individual [MAY/GARDNER 1972].

### 15.5.3 The Situation Today

Due in no small part to the legacy of KENNETH MAY, history of mathematics in Canada now has an active national association, the Canadian Society for the History and Philosophy of Mathematics, and a dozen or so researchers who publish work on a regular basis. Canadians participate at international meetings and serve on the editorial boards of leading journals. However, like any new subject seeking recognition, the discipline possesses its own characteristic difficulties. Many historians are located in departments of mathematics unfamiliar with professional work in the history of science. History departments on the other hand tend to see history of mathematics as a very technical subject aimed at a primarily scientific audience. As the discipline continues to become consolidated internationally and a body of historical work accumulates, this situation should gradually improve.

History of mathematics is carried out as an active subject of research at the Universities of Toronto (Toronto, Ontario), Simon Fraser (Burnaby, British Columbia), McMaster (Hamilton, Ontario), Acadia (Wolfville, Nova Scotia), Laval (Québec, Québec), Québec à Montréal (Montréal, Québec), York (Downsview, Ontario), and others. At the annual congress each May of the humanities and social sciences the CSHPM conducts a three-day meeting that attracts scholars from across Canada as well as foreign visitors from the United States and Europe. In 1997 and again in 1999 the CSHPM held a joint meeting with the British Society for the History of Mathematics. The proceedings of the annual meeting have been published since 1989.

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