Enseign. Math. (2) 71 (2025), 459–465
DOI 10.4171/LEM/1081

Once upon a time… Historical vignettes from the Archives of ICMI: A glance at the Kahane–Howson period

Commission Internationale de l'Enseignement Mathématique
(The International Commission on Mathematical Instruction)

Bernard R. Hodgson

In the memory of Geoffrey Howson (1931–2022)

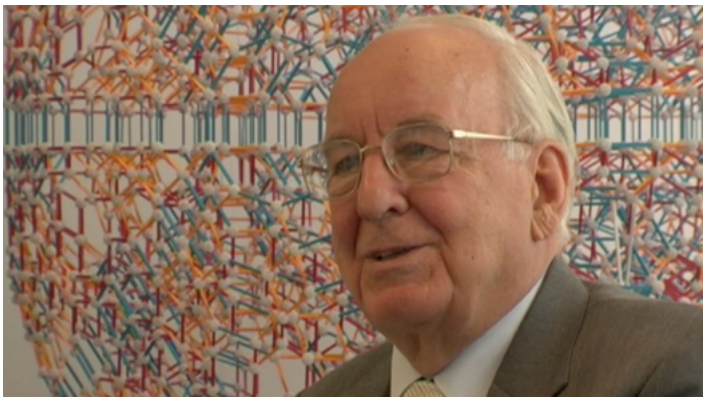

Figure 1
Geoffrey Howson (London, 2007)
(Source: IMU Archive—from an interview made on the occasion of the centennial of ICMI).

Professor (Albert) Geoffrey Howson passed away on November 1, 2022. In an obituary published in the December 2022 issue of the ICMI Newsletter [11]*, Mogens Niss, his successor as ICMI Secretary-General, outlines his numerous*

and important contributions to mathematical education in general, and to ICMI in particular. I wish in this ICMI Archive vignette to focus on the role played by Geoffrey inside ICMI, especially during the two terms that he served on its Executive Committee as Secretary-General of ICMI.

When a new Executive Committee (EC) of the International Commission on Mathematical Instruction (ICMI) started its term in 1983 under the presidency of Jean-Pierre Kahane (1926–2017) and with Geoffrey Howson as Secretary-General, the Commission, it must be stressed, was in a true state of disarray. This can be seen, for instance, from a comment of Olli Lehto (former Secretary of the International Mathematical Union—IMU) about the time span preceding the appointment of that ICMI EC: "For a long time, ICMI's activities visibly suffered from a lack of adequate administration" [10, page 258]. Such was the case in particular, notes Lehto, during the 1979–1982 EC term, with distinguished mathematicians Hassler Whitney (1907–1989) serving as President and Peter Hilton (1923–2010) as Secretary-General: "Their professional competence was in striking contrast to the Commission's inefficient administration" [10, page 258]. The Kahane–Howson tandem was thus entrusted by IMU with the task of putting ICMI back on track.

It may be of interest to note that prior to their joint appointment on the ICMI EC, Kahane and Howson had never met [8, page 2]. As mentioned by Howson, he and the acting ICMI Vice-President Bent Christiansen (1921–1996) were led to believe, in the early 1980s, that they both would be invited on the next ICMI EC, with Christiansen as President and himself as Secretary-General [8, page 1]. (Howson and Christiansen were then in regular contact in the context of the BACOMET group.) But the ICMI untidiness led IMU to take a strong action and ask Kahane to be President, Christiansen then being invited to renew as Vice-President (he also served for a third consecutive term as ICMI VP). However disappointing this decision may have been for Christiansen, both he and Howson later acknowledged that it "was of great benefit to ICMI" [8, page 2], considering "the outstanding qualities which Kahane brought to the post" [9, page 22].

There is no doubt in retrospect that the Kahane–Howson period (1983–1990) was highly successful and that the goal of restoring credence to ICMI was fully achieved. Both Jean–Pierre Kahane and Geoffrey Howson deserve to be praised on that account.

One crucial ingredient of this success story that I wish to highlight here, and which is still at the core of the ICMI framework for action nowadays, is a new component of ICMI's activities initiated by the Kahane–Howson EC at the very outset of its first term: the ICMI Studies. This program stems from discussions about the future of ICMI between Howson and Christiansen, prior to the beginning of that EC first term. Among the principles guiding their reflections was the idea of having scientific meetings where participation "should be open to anyone who demonstrated an active interest

in the matter under discussion, rather than those personally known to the organizers; and reports of the meeting should be properly prepared and edited and then made commercially available in as cheap a form as possible" [8, page 2]. His leading role in the conception and establishment of the ICMI Studies program is possibly the single most influential contribution of Geoffrey Howson to the development of ICMI. Of course, this was made possible by the unfailing support and dynamism of Jean-Pierre Kahane.

Just before the beginning of his presidency, Kahane hosted at his home in Paris a small meeting with Howson and Christiansen (who were joined for part of the discussion by Ed Jacobsen, the math specialist at UNESCO) [4]. It is on that occasion that the project of "studies" (originally called "symposia") was presented to Kahane, who "immediately supported the idea" [8, page 2]. The topics of four of the five ICMI Studies organized during the Kahane–Howson terms were then identified [4, pages 7–8], namely: (1) The influence of computers and informatics on mathematics and its teaching (see [2] for more information about this very first ICMI Study); (2) School mathematics in the 1990s; (3) Mathematics as a service subject; and (4) Mathematics and cognition. The topic for another study was soon decided as well: (5) The popularization of mathematics.

A note from a personal perspective: I was hired as a mathematician on a position in a math department directly linked to the mathematical education of teachers. Early in my career, I had the immense privilege of being invited as a participant to three of the first ICMI Studies (1, 3, and 5) that included an open call for contributions. (Studies 2 and 4 were exceptionally of a closed nature, a group of persons being appointed with the task of preparing the Study volume.) Such an invitation was based on a paper submitted to the Study conference. Being intensely involved in matters pertaining to mathematical education, I had soon become interested in issues such as the impact of computers on teaching (that was the time of early symbolic mathematical systems such as muMATH, an ancestor of Maple or Mathematica), service teaching (of great importance in my own department, especially to prospective teachers and engineers) and the popularization of mathematics—the precise topics of these three studies. I still remember vividly that in 1984, during the annual meeting of the Canadian Mathematics Education Study Group (CMESG), I was summoned—gently of course—by David Wheeler (1925–2000), the Canadian representative to ICMI at that time, in relation to the recent announcement of the first ICMI Study: "Bernard, there is that ICMI Study on computers in Strasbourg next year. You must submit a paper!" (That was David's style.... It was like the "old wise man" advising the "young faculty member"—although David was then not even 60 years old.) In a recent exchange of emails with Geoffrey on matters pertaining to the history of ICMI, only a few months prior to his passing, he was reminding me of our first meeting in Strasbourg at the computer Study. I am glad that I then had the

opportunity of expressing to him the importance of these episodes in my academic path. Being invited very early in my professional life to three ICMI Study conferences held at two-year intervals (1985, 1987, and 1989) was a truly enthralling and inspiring experience that in many ways shaped the rest of my career. I was slightly later asked by Kahane and Howson to present a lecture on the first five ICMI Studies in the education section of the International Congress of Mathematicians held in Kyoto in 1990 [1]. Such exceptional opportunities related to mathematical education in international settings had of course a very deep influence on my professional development.

During their two terms, Kahane and Howson also had to deal with other aspects of ICMI life, for instance,

- the site selection and organizational supervision of International Congresses of Mathematical Education: ICME-5 (1984, Adelaide) and ICME-6 (1988, Budapest) were held in that period, and the site selection was made for ICME-7 (1992, Québec)—I was personally pretty heavily involved in the latter project;
- the affiliation to ICMI of a new Study Group in 1987—the International Organization of Women and Mathematics Education (IOWME);
- or the furthering of the links with IMU, ICMI's "mother" organization, as well as with UNESCO.

Still, an exceptional part of the heritage from that period, besides the regained good health of ICMI as an organization, remains the fruitful program of ICMI Studies.

Other ICMI-related contributions by Geoffrey Howson may be worth reminding here. His landmark paper [5] written on the occasion of the 75th anniversary of ICMI remains an important historical reference about ICMI. In a similar vein, he presented at ICME-10 a regular lecture [6] on the contribution to ICMI of two of its outstanding presidents: Felix Klein (1908–1920) and Hans Freudenthal (1967–1970).

For many decades, Howson has been a key observer of ICMI and of its role in mathematical education as seen from an international perspective. He was never afraid of adopting a critical and challenging standpoint on such matters, but always with eloquence and style. In a previous ICMI Archive vignette [3], I stressed the crucial role he played in the hosting of ICME-2 in Exeter in 1972, as well as the important heritage he left in the Proceedings of that congress through his reflections, based on the experience of both ICME-1 and ICME-2, about what an ICME congress ought to be and how to achieve such goals. Howson pursued such considerations later, notably in a paper [7] written after his participation in the ICME-10 congress in Copenhagen in 2004. He then came back to a constant worry of his, namely to stay close and relevant to the teachers:

> *"My impression was that ICME-10 was far too preoccupied with research in mathematics education and with trying, in what was essentially an internal*

> *fashion, to give it credence and status. (…) This is not to say that no attention was given to the immediate concerns of teachers, curriculum developers and others at Copenhagen, but these appeared to be overshadowed by the attention given to educational research."* [7, pages 1–2]

In connection with the ICMI Studies, he has always supported the view that the so-called Study volumes published after the conference ought to be short (and slim), cheap and aimed at a wide audience ([7, page 5] and [8, page 6]). He himself implemented such a model in connection with the five ICMI Studies held during his terms as ICMI Secretary-General—comments on how he came to develop such a model can be found in [8, page 3]. His own vision of the aim of the books resulting from ICMI studies is well captured in the following questions that he raises:

> *"Does ICMI wish to produce books that have relevance and appeal to teachers and anyone particularly interested in mathematics education, or are they to be of more limited interest and directed more to researchers and research students? Are these latter already well enough served by the various research journals on mathematics education that now exist? These are not simple questions to answer for whatever options one chooses then complications and problems arise."* [8, page 3]

A beautiful illustration of Geoffrey's contribution to ICMI is the fact that very recently, in his nineties (!), he was able to resolve a long-standing issue: obtaining from Cambridge University Press the permission to make available on the ICMI website the ICMI-related books published by that house. This includes the Proceedings of ICME-2 and the five Study volumes of the ICMI Studies held during the Kahane–Howson terms. Discussions with CUP on that matter had been engaged more than a decade ago and repeated by various ICMI ECs, but always to no avail. A spectacular development is that a few months before his passing, Geoffrey was able to finally resolve this matter through his personal contacts with CUP. In a certain way, he was the one who could do it, considering his (strong) connections with CUP going back to half-a-century ago!

Over the last decades, I have been regularly in contact with Geoffrey Howson on different accounts. When I succeeded Mogens Niss as ICMI Secretary-General, I became so to say Geoffrey's "grandson" and I had quite a few discussions with him about both the "philosophical" and practical aspects of various ICMI matters. His deep familiarity with the history of the Commission was really helpful for me on many occasions. The same could be said in relation to my current responsibilities as Curator of the ICMI Archive. As a follow-up to my vignette [3] about the first two ICMEs, we had a series of email exchanges between June and August 2022. Among the questions I was asking him was the issue of the General Assembly of ICMI and the way this

event had been occurring over the years, and especially during his terms as ICMI SG. Again, his historical memory was so informative for me. In one of the last emails he sent me, early August, in reaction to a comment of mine that I was burdening him with my queries, he replied: "Do not worry about tiring me with your questions. It adds interest for me to think about days and people gone past. I fear there is little I can now do about the present and even less about the future!"

Chapeau et merci, très cher Geoffrey!

NB: The interested reader will find on the History of ICMI website[1]*, edited by Fuvia Furinghetti and Livia Giacardi, the videos from an interview that I made in September 2007 with Geoffrey Howson on the occasion of the ICMI Centennial, celebrated in March 2008.*

References

[1] B. R. Hodgson, Regards sur les Études de la CIEM. *Enseign. Math.* **37** (1991), no. 1, 89–107.

[2] B. R. Hodgson, Once upon a time… Historical vignettes from the Archives of ICMI: The first ICMI Study (1985). *ICMI News (March 2020)* (2020), 6–8.

[3] B. R. Hodgson, Once upon a time… Historical vignettes from the Archives of ICMI: About the ICMEs and their logos (I)—The first and second ICMEs. *ICMI News (June 2022)* (2022), article no. 4.

[4] A. G. Howson, Minutes of a meeting held in Paris on 3 December 1982 between J.-P. Kahane, B. Christiansen, and A. G. Howson. 1982, *IMU Archive/SF 1/Ser 14: ICMI 1981–1982 [Box 14C]*.

[5] A. G. Howson, Seventy-five years of the International Commission on Mathematical Instruction. *Educational Studies in Mathematics* **15** (1984), 75–93.

[6] A. G. Howson, Klein and Freudenthal. In *Proceedings of the 10th International Congress on Mathematical Education—Regular Lectures (CD)*, edited by M. Niss, document RL_Geoffrey_Howson.pdf (19 pages), Roskilde Universitet, Roskilde, 2004.

[7] A. G. Howson, Reflections on ICMEs. 2004, www.mathunion.org/icmi/publicationsicmi-bulletin/papers-unpublished-issues-icmi-bulletin, visited on 9 June 2024.

[8] A. G. Howson, Some notes on the early ICMI Studies. 2007, www.mathunion.org/icmi/publicationsicmi-bulletin/papers-unpublished-issues-icmi-bulletin, visited on 9 June 2024.

[1] www.icmihistory.unito.it/clips.php.

[9] A. G. Howson and M. Niss, Obituary: Bent Christiansen, 1921–1996. *ICMI Bulletin* (1996), no. 41, 21–24.

[10] O. Lehto, *Mathematics without borders: A history of the International Mathematical Union*. Springer, New York, 1998. Zbl 0889.01021 MR 1488698

[11] M. Niss, Jeremy Kilpatrick and Geoffrey Howson: Obituary of Geoffrey Howson, 1931–2022. *ICMI News (December 2022)* (2022), article no. 9.

(Reçu le 19 décembre 2022)

Bernard R. Hodgson, Département de mathématiques et de statistique, Université Laval, 1045 avenue de la Médecine, Québec, G1V 0A6, Canada; *e-mail:* bernard.hodgson@mat.ulaval.ca