

*Cru*x Chronology

J. Chris Fisher

1 Highlights

March 1975, *Eureka*.

*Cru*x *Mathematicorum* with *Mathematical Mayhem* began life as the journal *Eureka*. Early in 1975, six members of the Carleton-Ottawa Mathematics Association (COMA) met privately and decided to launch *Eureka*

to provide a forum for the exchange of mathematical information, especially interesting problems and solutions, among the members of the mathematical community in the Ottawa region, students and teachers alike. [1975 : 1]

Three of the six were from Algonquin College: Léo Sauv e, who served as the first editor (until 1986); Fred G.B. Maskell, COMA’s secretary-treasurer who became the first managing editor (through 1984); and H.G. Dworschak. The other three were Viktors Linis of the University of Ottawa, R. Duff Butterill of the Ottawa Board of Education, and Richard J. Semple of Carleton University.

While Dworschak and Linis provided some support and numerous problems, it was L e and Fred who provided the the energy and dedication required to turn their modest local venture into a journal that within two years developed an international following, a following that included some of the world’s finest mathematicians. In the words of his friend and colleague Kenneth S. Williams [1987 : 240-242], “L e’s dedication and hard work, his broad knowledge and love of mathematics, his careful eye for detail, all enabled *Cru*x to grow from a four-page problem sheet to the international mathematical problem-solving journal that it is today.” Many of *Cru*x’s faithful contributors became L e’s friends; their tributes to him can be found in the issue dedicated to him [1986 : 163-168].

March 1978, *Cru*x *Mathematicorum*.

Beginning with volume 4 number 3, the name of the journal changed to *Cru*x *Mathematicorum*. After 32 issues had been published under the name *Eureka*, it was discovered that there was a journal *Eureka* published once a year by the Cambridge University Mathematical Society. Sauv e chose the new name: it is an idiomatic Latin phrase meaning a puzzle or problem for mathematicians [1978 : 89-90].

January 1979, the Olympiad Corner.

Murray S. Klamkin initiated the Olympiad Corner [1979 : 12] to “provide, on a continuing basis, information about mathematical contests taking place in Canada, the U.S.A., and internationally.” It would also provide “practice sets of problems on which interested students could test and sharpen their mathematical skills and thereby possibly qualify to participate in some Olympiad.” Klamkin served as editor of the first 80 columns, through December, 1986.

December 1984, Fred.

Frederick G. B. Maskell (1904-1985) steps down as managing editor [1984 : 340], and died a few months later [1985 : 14, 34]. He was replaced by Kenneth S. Williams.

October 1 1985, the CMS.

For nearly eleven years *CruX* was published by Algonquin College and sponsored by the Carleton-Ottawa Mathematics Association. In 1979 The Canadian Mathematical Olympiad Committee and the Carleton University Mathematics Department added their support, joined later by the University of Ottawa Mathematics Department. In March, 1985, the Canadian Mathematical Society was asked to assume responsibility for its publication; that organization called for suggestions concerning the future of the journal and began the search for a new editor. [1985 : 100] On October 1, 1985, *CruX* became an official publication of the Canadian Mathematical Society. [1985 : 234, 236] The October 1985 issue was dedicated to Philip Kileen, President of Algonquin College, who strongly supported *CruX* during its first eleven years. For all future editors, the mathematics department of the current editor's university lent support to the journal.

February 1986, G.W. (Bill) Sands.

Starting with Volume 12, number 2, Bill Sands (University Calgary) became the second editor (through 1995) . [1986 : 17, 37] He announced [1986 : 65] that the September issue would be dedicated to Léo Sauvé.

January 1987 Robert Woodrow.

The Olympiad Corner's Murray Klamkin was replaced by Robert E. Woodrow [1986 : 263; 1987 : 2-3, 34], but Klamkin continued making valuable contributions to *CruX* until his death in 2004.

June 19, 1987, Léo.

Léo Sauvé died (Dec. 12, 1921 - June 19, 1987). [1987 : 240-242] Not only was Léo the consummate scholar, but he injected into each page of *CruX* a spicy liveliness that will probably never be matched. When a problem failed to attract solutions to his liking, he would write his own, assuming the guise of his contributor persona, Gali Salvatore (Salvatore = Sauvé). If there happened to be a gap he could not fill, he would attach an editorial comment in which he criticized Salvatore's proof; see [1984 : 31] where he attacked the solution (his own!) to problem 783, complaining that the whole argument rested on a formula that came without a proof "presumably because he (or she: is Gali a man's name or a woman's?) felt it was 'easy.' " Edith Orr (= editor) was another persona who was able to make comments that an editor could not; her poetry was sometimes so racy that it would not have been allowed to pass through the mail had the postal inspectors thought to look closely at a math journal! See her comment on lambs [1983 : 211-212], which Léo, wearing his editor's hat, dismissed as "scrofulous."

January 1988, Colour.

Starting with volume 14, each issue came with a coloured front and back cover; although it continued to be printed on $8\frac{1}{2} \times 11$ three-holed paper and

stapled together, it began to take on a more professional look.

January 1989, Kenneth Williams.

Kenneth Williams steps down from his position of managing editor and his role as technical editor. [1988 : 300-301] His duties were taken over by Graham P. Wright, the executive director of the Canadian Mathematical Society, together with members of his staff; Wright served (except for a short period between 1999 and 2000 when the position was filled by Robert Quackenbush) until his retirement in May, 2009.

January 1991, The Editorial Board.

After five years of performing all the editorial duties with only occasional help from others, Sands organized the first formal editorial board. Robert Woodrow was promoted to joint editor, and six others agreed to form the board. The board members will be listed later.

January 1995, New format and Skoliad.

Starting with volume 21, the appearance was changed to its current 10-inch format with purple covers. Also, the Skoliad Corner was inaugurated with its simpler “Pre-Olympiad” problem sets, with Robert Woodrow as its first editor [1995 : 5]. The name was suggested by Richard Guy, who had searched a map of the Mount Olympus area, finding the mountain Scollis, and then making a portmanteau of this with *scholar* and *Olympiad*. At about 1/3 the height of Mount Olympus, Mount Scollis seems the appropriate metaphor for a junior Olympiad. It was later learned that *skolion*, an unrelated ancient Greek word, referred to songs sung by invited guests at banquets in ancient Greece extolling the virtues of the gods or heroic men! It seems to have come from the word for crooked, which seems appropriate for a problem section: short, diverse, and slightly twisted entertainments.

January 1996, Bruce L.R. Shawyer.

Bruce Shawyer (Memorial University of Newfoundland) became the third editor starting with volume 22 [1995 : 354; 1996 : 1]; he served until December 2002. Colin Bartholomew, also of Memorial University, served as assistant editor for one year, after which Clayton Halfyard took over that position from 1997 through 2002. With the new editor, the journal went from 10 issues of 36 pages (360 pages per volume) to 8 issues of 48 pages (384 pages per volume). Although the January and June issues were dropped, there were 24 extra pages per year, allowing increased efficiency of printing and a decrease in mailing costs. The journal went on-line for subscribers later that year [1996 : 289].

The Academy Corner.

Shawyer produced the Academy Corner during his tenure as editor. It dealt with problem solving at the undergraduate level. [1996 : 28] It ended with column 49 when he stepped down in 2002. [2002 : 480]

February 1997, *Cruz Mathematicorum with Mathematical Mayhem.*

Mathematical Mayhem had been founded in 1988 by Ravi Vakil and Patrick Surry, two Canadian IMO alumni, as a journal of high-school and college level

mathematics written by and for students. [1996 : 337; 1997 : 1-2, 30-31] When it amalgamated with *CruX* in volume 23, it brought additional high-school level material and gained, in return, a wider exposure. It was agreed that the new journal would continue the volume numbering of *CruX* as well as maintain its general external appearance. The number of pages per issue jumped from 48 to 64. The then current *Mayhem* editor Naoki Sato and assistant editor Cyrus Hsai continued in their positions for four years, through December 2000. Other editors and staff are listed below.

January 2002, français.

The statement of all problems would henceforth appear in both English and French. Jean-Marc Terrier has been translating from the start; other translators, serving for various periods, have been Hidemitsu Sayeki, Martin Goldstein, and Rolland Gaudet.

January 2003, Jim Totten.

James Edward Totten (University College of the Cariboo, renamed Thompson Rivers University in 2005) became the fourth editor starting with volume 29. [2002 : 287-288; 2003 : 1] His plan was to step down in June of 2008, after serving the final six months as co-editor, but he died on March 9, 2008 in his 61st year (born August 9, 1947). His Assistant editor was Bruce Crofoot.

January 2006, *Mayhem* on-line.

The *Mayhem* portion of the journal became open to the public on the internet starting with volume 32. Currently, all issues of *CruX with Mayhem* become free to the public after five years, while the *Mayhem* portion is always available for free.

January 2008, Václav (Vazz) Linek.

Vazz Linek (University of Winnipeg) became co-editor of the journal, then became the journal's fifth editor starting in July. [2007 : 449; 2008 : 193-194] His assistant editor is Jeff Hooper.

September 2009.

Johan Rudnick became the executive director of the Canadian Mathematical Society and, thereby, the new managing editor of *CruX*.

2 *CruX* Editors

Editors-in-chief

Léo Sauvé	March 1975 through January 1986
G.W. Sands	February 1986 through December 1990
G.W. Sands and Robert Woodrow	January 1991 through December 1995
Bruce L.R. Shawyer	January 1996 through December 2002
James Totten	January 2003 through May 2008
Václav (Vazz) Linek and James Totten	January 2008 through May 2008
Vazz Linek	June 2008 through March 2011
Shawn Godin	April 2011 to present

Managing Editors

Frederick G.B. Maskell	March 1975 through November 1984
Kenneth S. Williams	December 1984 through December 1988
Graham P. Wright	January 1989 through September 1999
Robert Quackenbush	October 1999 through December 2000
Graham P. Wright	January 2001 through August 2009
Johan Rudnick	September 2009 to present

Olympiad Corner

Murray S. Klamkin	1979 through 1986
Robert E. Woodrow	1987 through 2010

***Crux* Editorial Board**

J. Chris Fisher	1991 to present
Richard Guy	1991 through 2003
Denis Hanson (articles)	1991 through September 1999
Andy Liu (book reviews)	1991 through 1998
Richard Nowakowski	1991 through 1994
Edward T.H. Wang	1993 through 2010
Rod De Peiza	1994
Jim Totten	1994 through 2002 (when he became editor-in-chief)
Catherine Baker	1995 through 1999
Loki Jörgenson	1998 through 2002*
Alan Law (book reviews)	1999 through 2001
Bruce Gilligan (articles)	2000 through 2007
Iliya Bluskov	2000 through 2009
John Grant McLoughlin	2002-2009 (book review editor until 2008)
Richard (Rick) Brewster	2003 through 2005
Bruce Shawyer (editor-at-large)	2003 to present
Maria Torres	2006 through 2009
James Currie (articles)	2008 through 2010
Amar Sodhi (book reviews)	2009 to present
Nicolae Strungaru	2009 to present
Jonatan Aronsson	2010
Dzung Minh Ha	2010
Robert Craigen	2011 to present
Robert Dawson (articles)	2011 to present
Chris Grandison	2011 to present
Cosmin Pohoata	2011 to present

* Although he was responsible for the on-line edition starting in 1996, he was a board member for only five years.

Skoliad Corner

Robert Woodrow	1995 through May 2001
Shawn Godin	September 2001 through 2004
Robert Bilinski	2005 through 2008
Václav Linek	February 2009
Lily Yen and Mogens Hansen	March 2009 to present

3 *Mathematical Mayhem*

Mayhem editors

Before joining *Cruæ*: Patrick Surry, Ravi Vakil, Philip Jong, Jeff Higham, J.P. Grossman, Andre Chang, and Naoki Sato.

After the amalgamation:

Naoki Sato	1997 through 2000
Shawn Godin	2001 through 2006
Jeff Hooper	2007
Ian VanderBurgh	2008 through 2010

Mayhem assistant editors

Cyrus Hsai	1997 through 2000
Chris Cappadocia	2001 through 2002
John Grant McLoughlin	2003 through 2005
Jeff Hooper	2006
Ian VanderBurgh	2007
Lynn Miller	2011 to present

Mayhem editorial staff (various terms)

Richard Hoshino, Wai Ling Yee, Adrian Chan, Jimmy Chui, David Savitt, Donny Cheung, Paul Ottaway, Larry Rice, Dan MacKinnon, Ron Lancaster, Eric Robert, Monika Khbeis, Mark Bredin.

4 Special Issues and Articles

Special Issues

3:4 April 1977, The Gauss bicentennial Issue [1976 : 131, 161]

3:10 December 1977, Special Morley Issue; see also [1978 : 33-34, 132; 1978 : 304-305]

12:7 September 1986, Issue dedicated to Léo Sauvé [1986 : 65]

27:2 March 2001, Murray Klamkin 80th Birthday Issue [2001 : 65-85]

31:5 September 2005, Issue dedicated to Murray S. Klamkin [2004 : 361]

35:5 September 2009, Issue dedicated to James Edward Totten [2008 : 193]

Encyclopedic Articles

Léo Sauvé, The Celebrated Butterfly Problem. [1976 : 2-5]

Léo Sauvé, The Steiner-Lehmus Theorem, and

Charles W. Trigg, A Bibliography of the Steiner-Lehmus Theorem. [1976 : 19-24, 191-193]

5 Contributors and Friends

Honours and Awards

Murray Klamkin (University of Alberta), *M.A.A. Distinguished Service Award* [1988 : 33]; *David Hilbert International Award* [1992 : 224]

Marcin E. Kuczma (University of Warsaw), *David Hilbert International Award* [1992 : 224]

Ronald Dunkley (University of Waterloo), *Order of Canada* [1996 : 106]
 Andy Liu (University of Alberta), *David Hilbert International Award* [1996 : 201];
Outstanding University Professor [1999 : 65-66]
 Bruce Shawyer (Memorial University of Newfoundland), *Adrien Pouliot Award*
 [1998 : 19]
 Francisco Bellot Rosado (Institute Emilio Ferrari), *Erdős Prize* [2000 : 320]

Contributor Profiles

R. Robinson Rowe [1977 : 92,184,248; 1978 : 6,63,129,189]
 Kestrajū Satyanarayana [1981 : 294]
 Jack Garfunkel [1990 : 318]
 Leon Bankoff [1995 : 292]
 Jordi Dou [2002 : 56; 2006 : 65]
 K.R.S. Sastry [2006 : 2]
 Toshio Seimiya [2000 : 114; 2006 : 129]
 Christopher J. Bradley [2006 : 257]
 D.J. Smeenk [2006 : 353]
 Michel Bataille [2007 : 1]
 Richard K. Guy [2007 : 65]
 Walther Janous [2007 : 385]
 Peter Y. Woo [2008 : 1]
 Arkady Alt [2010 : 65]
 John G. Heuver [2010 : 193]

Death Notices

Richard J. Sempel, Carleton University (1930-1977) [1977 : 188]
 R. Robinson Rowe (1896-1978) [1978: 152]
 Herman Nyon, Paramaribo, Surinam (? - 1982) [1982 : 268]
 Viktors Linis, University of Ottawa (1916-1983) [1983 : 192]
 Kestrajū Satyanarayana (1897-1985) [1985 : 268]
 Geoffrey James Butler, University of Alberta (1944-1986) [1986 : 203]
 Samuel L. Greitzer, Rutgers University (1905-1988) [1988 : 161-162]
 Charles Trigg, San Diego, CA (1898-1989) [1989 : 224]
 Jakob T. Groenman, Arnhem, The Netherlands [1989 : 96]
 W.J. Blundon, Memorial University of Newfoundland (1916-1990) [1990 : 160]
 Jack Garfunkel (1910-1990) [1991 : 64]
 Oene Bottema, Delft, The Netherlands (1901-1992) [1993 : 32]
 Peter Joseph O'Halloran, University of Canberra (1931-1994) [1994 : 248-249]
 Pál Erdős (1913-1996) [1996 : 339]
 Leon Bankoff, Los Angeles, CA (1908-1997) [1997 : 145]
 Jessie Lei, University of Toronto (1980-2000) [2000 : 1-2]
 Herta Freitag, Roanoke, VA (1908-2000) [2000 : 535]
 H.S.M. Coxeter, University of Toronto (1907-2003) [2003 : 232]
 Murray S. Klamkin, University of Alberta (1921-2004) [2004 : 361]
 Robert Barrington Leigh, University of Toronto (1986-2006) [2006 : 453]
 Jordi Dou (1911-2007) [2007 : 457]
 James Edward Totten, Thompson Rivers University (1947-2008) [2008 : 194]