

RASC History Committee Report NC186

2018 December 2



RASC National President, Dr. Chris Gainor (right), Peter Broughton, author of *Northern Star* (centre), and the Society's Archivist R.A. Rosenfeld (left), when Dr. Gainor visited Toronto last October. They are seen in a part of Trinity College, which almost played host to the Society's official observatory in 1903; <https://tinyurl.com/y9zdj9qt>.



ARCHIVES

Progress in refining elements of the physical disposition of the Society's Archives has been steady, but slow—certainly slower than the Archivist would like. He is hoping to have more time to resume work on cataloguing in the new year. One aspect which has shown more vigorous progress is the digitization initiative, and that progress is nearly entirely due to the dedication, and competence of the Society's Webmaster, Walter MacDonald (aided by bouts of cloudy weather over the Winchester Observatory). This last Friday he completed the mammoth task of digitizing all three hundred and forty three of the alphabetical files, many of which contained material numbering well over a hundred pages. This material is now available in the "Alphabetical Files" on rasc.ca (www.rasc.ca/rasc-archives-alphabetical-files). It constitutes a rich and underexploited resource. Walter has also extended the run of digitized *Observer's Handbooks* (www.rasc.ca/handbook-history).

In the period since the last History Committee Report, we have received several gifts. The most significant are from the Society's Honorary President, Prof. Douglas Hube. These are described below.

1. Mary Agnes Clerke, *Problems in Astrophysics*, 1st ed. (London: Adam & Charles Black, 1903). Condition: very good, green cloth binding with embossed gold lettering, turned-down corners, minor scuffing, some minor foxing to front endpapers, and yellowing to back endpapers, rare foxing to outer edges of a few pages. An important and professionally respected work of astrophysical syntheses at the highest level. Ms Clerke (1842-1907) was an honorary member of the Society (elected a Corresponding Member 1891), who contributed to our publications. What makes this copy of her treatise outstanding is its provenance. It was owned by two generations of successive Radcliffe observers, whose signatures adorn the front flyleaf. Dr. Harold Knox-Shaw (1886-1970), FRAS, and Prof. Andrew David Thackeray (1910-1978), ARAS, two of the most significant figures in the development of southern-hemisphere astronomical spectroscopy in the twentieth century. The third owner in the chain of provenance, Prof. Douglas Hube (1941-), FRASC, was the 52nd President of the RASC (1992-1994), and is the 32nd Honorary President of the RASC (2018). Prof. Hube and was mentored by Thackeray at the Radcliffe Observatory in South Africa when he was undertaking research there as a graduate student. Bibliography: M. T. Brück, *Agnes Mary Clerke and the Rise of Astrophysics* (Cambridge–New York–Port Melbourne: Cambridge University Press, 2002), pp.

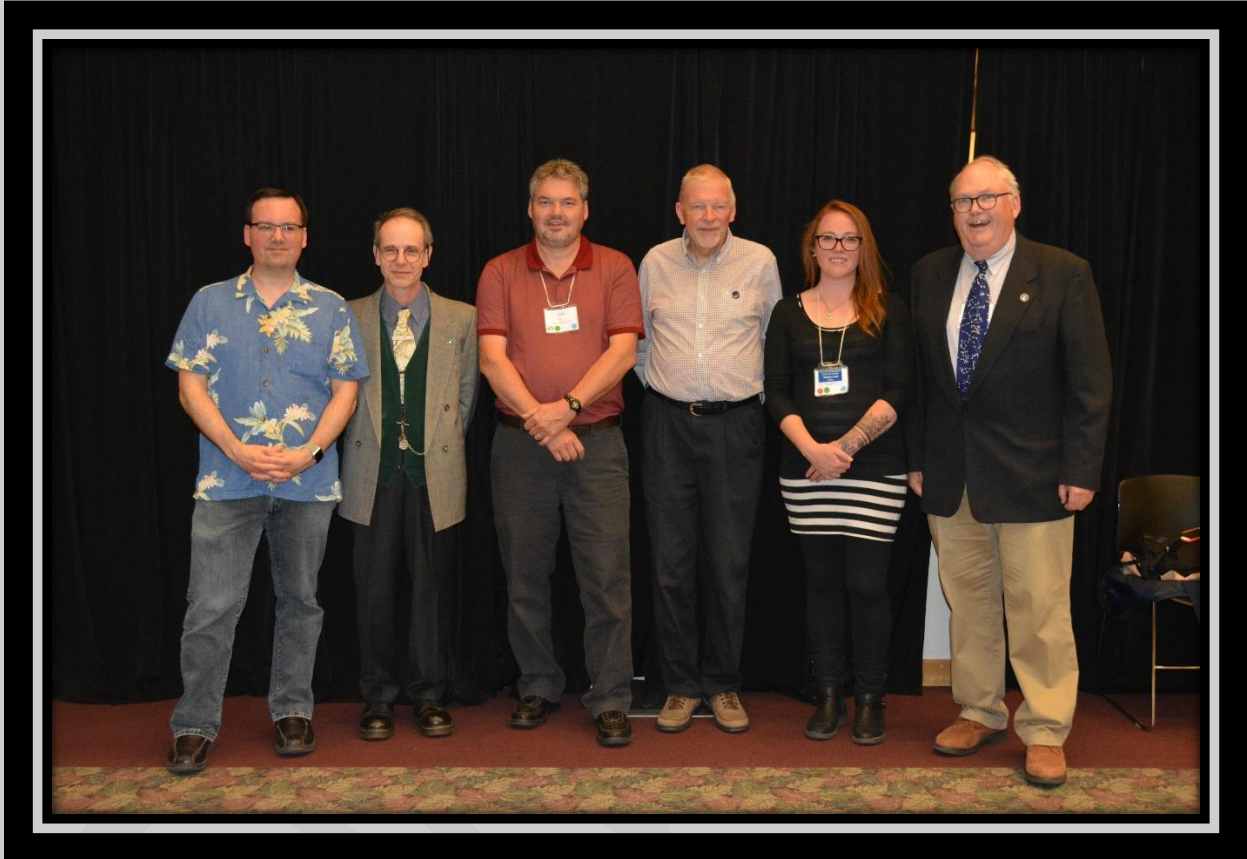
161-174; A.D. Thackeray, "Dr. Harold Knox-Shaw", *Monthly Notes of the Astronomical Society of Southern Africa* XXIX, 5 & 6 (1970 June), 54-55; B. Warner, "Andrew David Thackeray", *MNASSA* 37, 3 & 4 (1978 April), 20-22.

2. Svante Arrhenius, *The Destinies of the Stars*, tr. J.E. Fries, 1st ed. (New York–London: G.P. Putnam’s Sons, 1918). Condition: very good, blue cloth binding with embossed gold lettering, turned-down corners, mild staining to the fore edge of pp. 255-back paste down (located *ca.* 7-cm from the bottom edge), turned-down and slightly worn headcap and tail, some minor wear to lower edge of front and back boards. Prof. Arrhenius (1859-1927), a physical chemist, won the Nobel Prize for Chemistry in 1903, and was Director of the Nobel Institute for Physical Chemistry in Stockholm. His *Lehrbuch der kosmischen Physik* (Leipzig: Hirzel, 1903) appeared towards the end of the active life of Humboltian-inspired “cosmical physics”, and was considered significant in its day. He frequently wrote, and theorized on astrophysical topics. He made solid and lasting contributions to physical chemistry; many of his astrophysical ideas were useful catalysts in their day, but have not worn well. His *Destinies of the Stars* was a work of *haute vulgarisation*, and probably the chief vehicle for the spread of his ideals among those who cared for such things in the English speaking world. Bibliography: Svante Arrhenius—Biographical (https://www.nobelprize.org/nobel_prizes/chemistry/laureates/1903/arrhenius-bio.html); E. Crawford, *Svante Arrhenius, Cosmical Physicist and Auroral Theorist* (Canton, MA: Science History Publications, 1996); H. Kragh, “Svante Arrhenius, Cosmical Physicist and Auroral Theorist”, in *History of Geo-and Space Sciences* 4, 2 (2013), 61-69.
3. A.D. Thackeray, *Astronomical Spectroscopy, A Survey of Astronomy*, 2, ed. Colin A. Ronan & Patrick Moore (London: Eyre & Spottiswoode, 1961). Condition: very good, blue cloth binding with embossed silver lettering, some fading to upper edge of front and back boards and headcap, dust jacket in good condition. Appeared in a series meant to bridge the gap between elementary expositions and university level introductions. This copy is from the author’s library. Bibliography : A.H. Jarrett, "A.D. THACKERAY: *Astronomical Spectroscopy*. Eyre & Spottiswood, London, 1961, 256 pp. 18s.", *Planetary and Space Science* 9, 10 (1962), 768.
4. Margherita Hack and Otto Struve, *Stellar Spectroscopy: Peculiar Stars* (Trieste: Osservatorio astronomico di Trieste, *ca.* 1970). Condition: very good, green cloth binding with embossed white lettering, some fading and spot marks to the spine. An update to a technical monograph summarizing the *status questionis* of its subject. Prof. Struve (1897-1963) was the last significant astronomer in an unprecedented dynasty of professional astronomers. He was an honorary member of the RASC from 1959-1963, and the second member of his family to be so honoured. This copy is from the library of Prof. A.D. Thackeray. Bibliography: T.G. Cowling, “Otto Struve”, *Biographical Memoirs of the Fellows of the Royal Society* 10 (1964), 283-304; D.E. Osterbrock, *Yerkes Observatory, 1892-1950: the Birth, Near Death, and Resurrection of a Scientific Research institution* (Chicago–London: University of Chicago Press, 1997).

A SHARED SKY: THE RASC AT 150

The event which brought the greatest number of Committee members together in one place at one time in pursuit of a common goal was “A Shared Sky: the RASC at 150”, the RASC Sesquicentennial Symposium at this year’s GA, at the University of Calgary on 2018 June 29, and July 1. Other RASC members with an interest in the history & heritage of the Society also

participated. The presentations were well-received, and plans are underway to incorporate written versions of the presentations as the core of a book on aspects of the history of the RASC, to which other invited contributions will be added. The editor will be sending letters out to contributors in the near future. Meanwhile, more details on the presentations given at the GA can be found below in the appropriate section of this report, and at www.rasc.ca/rasc-2018-shared-sky-rasc-1868-2018.



The above photograph was taken at the 2018 GA, and shows members of the Committee who participated in the Sesquicentennial Symposium; Chris Beckett, R.A. Rosenfeld, Clark Muir, Peter Broughton, FRASC, Heather Laird (Director), and Dr. Chris Gainor (RASC National President). Missing from the photograph is Andrew Oakes; Eric Briggs was also in attendance at the GA.

BARRY MATTHEWS

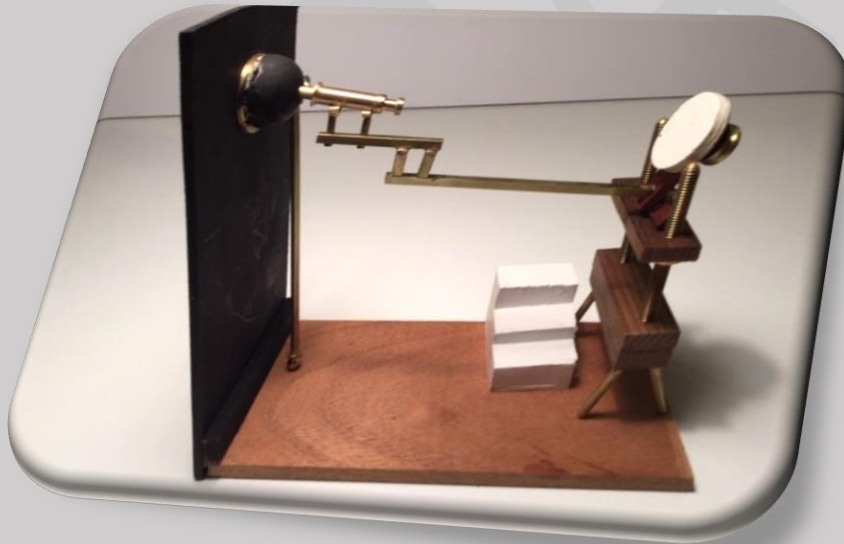
MINIATURES

Barry Matthews, former Chair of the Committee, has kept busy in his retirement, and has produced more of his miniature interpretations of historical astronomical apparatus. Some of you

will remember that he started off several years ago by crafting a miniature of the telescope William Herschel used to discover Uranus (Barry Matthews & R.A. Rosenfeld, "Telescopes in Miniature", *JRASC* 108, 3 (2014 June), 112-115, 118-119; <http://adsabs.harvard.edu/abs/2014JRASC.108..112M>). Now Barry has produced seven more models.



Johannes Hevelius refractor as used for his *Selenographia* (1647).



Johannes Hevelius solar telescope (1673).



Reflector built as a gift for Einstein (1954).



James Short reflector (1760s).



Telescopes used on the *Endeavour* mission to observe the transit of Venus (1769).



Unitron 5-inch O.G. f/15 refractor, with pier, and tripod.



Refractor
used by
Maria
Mitchell for
her 1847
comet
discovery.

HOMER WATSON HOUSE & GALLERY

Clark Muir (History Committee Vice Chair) writes:

“The Homer Watson House & Gallery’s “150 Years of Astronomical Imagery” exhibit opened on September 9, and ran through to October 21. I have yet to get a formal final attendance number. During a Waterloo Region “Doors Open” event there were about 300 viewers in one day. Most would have likely stayed at least a half hour.

The inclusion of Gustav Hahn's Great Meteoric Procession painting had in retrospect a bigger influence than I had anticipated. For example, at the grand opening event many from the local art community had a chance to view the Hahn Painting and were introduced to the painter. The gallery had also put on display one of Watson's night landscapes (featuring predominant moonlight) for the first time publicly. Both of these paintings were highly praised.

There were several prints of works from the RASC archives dating back to 1868 on display. These were placed alongside prints from current and past members of the K-W centre. In total there were 35 framed prints, including many different types of astronomical objects from comets to galaxy clusters.

I should thank the RASC 2018 Sesquicentennial budget for their financial support for this exhibit”.

Peter Broughton and the Archivist had the opportunity to visit the exhibit with Clark, and both can attest to the outstanding nature of the exhibit, particularly how successfully elements of continuity and difference in imaging the heavens as practiced by RASC members from 1868 to 2018 were illustrated by the effective juxtaposition of images. Both Clark and Faith Hieblinger, the Executive Curator of the Homer Watson House and Gallery, showed commendable curatorial acumen in designing and mounting the exhibit, aided by the support of the K-W Centre, and the able staff of the Homer Watson House and Gallery.



Clark Muir, History Committee Vice Chair, and Faith Hieblinger, the Executive Curator of the Homer Watson House and Gallery.

Andrew Elvins' drawings of the phases of Venus (1868) and Mars (1892).



A.F. Miller (1895), Klaus Brasch (1961), and a modern image by a K-W Centre member.



Gustav Hahn, painting of the Great Meteor Procession (1913).

Jeff Dawkins
Landscapes and Night



Jeff Dawkins, astronomical
nightscape





Jeff Dawkins, astronomical nightscape



Peter Broughton descending the steps of the Homer Watson House and Gallery.

SKY & TELESCOPE ACKNOWLEDGES RASC 150



Rather gratifyingly, *Sky & Telescope* has acknowledged the Society's sesquicentennial with a web article released on the eve of the commemoration of the organizational meeting for what would in time evolve into the RASC. Our National President, Dr. Chris Gainor, sent a message to the entire membership (or rather, the substantial proportion who are electronically connected) marking the date as well.

The article, by Dr. Diana Hannikainen, *Sky & Telescope's* Observing Editor, is notable for its accuracy. The only error lies in the description of the Archivist as "RASC's historian". He isn't. He is *an* historian of the RASC. Numerous other's equally worthy of that designation can be found on this Committee.



This pair of "then-and-now" images appeared in the *Sky & Telescope* article. The same refractor features in both. Comparing the two images, the Archivist also appears to have aged as one would expect over the interval.

The Society's Executive Director played a major role in facilitating the appearance of the article.

PRESENTATIONS

"A Shared Sky: the RASC at 150", RASC Sesquicentennial Symposium at the RASC GA, University of Calgary 2018 June 29, July 1

Friday June 29, Session I

- R.A. Rosenfeld, "The RASC at 150: a History of Advancing Astronomy and Allied Sciences, or Sleeping through the Night?"
- Andrew Oakes, "Communicating Astronomy: C.A. Chant and the RASC"
- R. Peter Broughton, "J.S. Plaskett & the RASC"

Sunday July 1, Session II

- Clark Muir, "Astronomical Expeditions: the RASC in Travelling Mode"
- Chris Beckett, "Styles of Observing in the RASC Since 1868"
- Chris Gainor, "The RASC and the Space Age—Participants and Spectators"

Session III

- Heather Laird, “Varieties of Female Participation in the RASC”

The symposium concluded with a round table involving all the speakers, and some audience participation.

Peter Broughton, “J.S. Plaskett—Northern Star”, a Friday night tent talk at Stellafane, VT, 10 August

Joint colloquium, Department of Astronomy and Astrophysics, University of Toronto, and the Institute for the History and Philosophy of Science and Technology, November 28, Cody Hall, Department of Astronomy and Astrophysics

- Peter Broughton, “The UofT and J.S. Plaskett”
- Andrew Oakes, “Clarence Augustus Chant (1865-1956) and Astrophysics at U. of T.—The legacy of an Extraordinary Academic in a New Era of Scientific Research”

RASC 150 History Podcasts

- Heather Laird & R.A. Rosenfeld, Ep. 8: 2018 August, “The Republic of Letters, and the Invisible College” (www.rasc.ca/sites/default/files/audio/Podcast-RASC150-08.mp3)
- Heather Laird & R.A. Rosenfeld, Ep. 9: 2018 September, “Gender, 'Race', and Astronomy” (www.rasc.ca/sites/default/files/audio/Podcast-RASC150-09.mp3)
- Heather Laird & R.A. Rosenfeld, Ep. 10: 2018 October, “Buried Treasure, Lost Treasure” (www.rasc.ca/sites/default/files/audio/Podcast-RASC150-10.mp3)

PUBLICATIONS

Chris Beckett & R.A. Rosenfeld, “Camelopardalis”, *RASC Observer’s Handbook 2019*, ed. James S. Edgar (Toronto: RASC, 2018), pp. 272-273

Peter Broughton, “Some thoughts about WWI and the RASC”, *JRASC* 112, 6 (2018 December), 243-246

Christopher Gainor, *The Bomb and America's Missile Age*, The Johns Hopkins University Studies in Historical and Political Science (Baltimore, MD: Johns Hopkins University Press, 2018)

R.A. Rosenfeld, “Viewing the Moon Across Time: RASC Sesquicentennial Observing Program”, *JRASC* 112, 4 (2018 August), 151-156

R.A. Rosenfeld, “Out of This World: Art inspired by all things Astronomical”, *JRASC* 112, 6 (2018 December), 236-242

R.A. Rosenfeld, “In Photos: Celebrating the Early Years of the RASC”, *JRASC* 112, 6 (2018 December), 246-249

R.A. Rosenfeld, “Richard A. Jarrell (1946–2013)”, *Bulletin of the American Astronomical Society* 50 (2018), 027 (<https://aas.org/obituaries/richard-jarrell-1946-2013>)

HONOURS

Peter Broughton, FRASC, received the Society’s Chant Medal at the GA in Calgary on 2018, July 1 (the citation can be found at www.rasc.ca/sites/default/files/Chant_Medal_2018.pdf).

OTHER ACTIVITIES

Les Cowley, a retired chemical physicist, is the creator and curator of the outstanding *Atmospheric Optics* site (<https://www.atoptics.co.uk/>). In a recent *Optics POD* (Optics Picture of the Day) outlining the development of our present understanding of the physics of halos (<https://www.atoptics.co.uk/fza163.htm>), he credits Roy Bishop for leading him to a secondary source which explicates Newton’s changing views of the science. For those interested, the latest publication of Roy’s “Rainbows and Some Other Sky Phenomena” is in the *Observer’s Handbook 2019* (Toronto: Royal Astronomical Society of Canada, 2019), pp. 194-204, and for the passage in question, see p. 201.

Eric Briggs continues to index the contents of historical sources for Canadian astronomy from the pre-digital age. Anyone interested in further details, or becoming involved, can contact him at: ebriggs733@gmail.com.

ACKNOWLEDGMENTS

The Committee wishes to thank Randy Attwood, FRASC, Executive Director, Renata Koziol, Accounting Manager, Julia Neeser, Office Manager, and Jenna Hinds, Outreach Coordinator for assistance during the period covered by this report. Immense thanks are due to Walter MacDonald (RASC Webmaster) for digitizing our varied past in this year of our sesquicentennial. Much like accumulating variable star estimates, such work is by its very nature never done.

Respectfully submitted,
R.A. Rosenfeld, Chair

Committee Members:

- *Randy Attwood, FRASC (ED)
- Chris Beckett (Unattached)
- Dr. Roy Bishop, FRASC (Halifax)
- Eric Briggs (Toronto)
- Peter Broughton, FRASC (Toronto)
- Dr. Karen Finstad (Ottawa Centre)
- Dr. Chris Gainor (RASC National President, Victoria)
- *Renata Koziol (Accounting Manager)
- Heather Laird (Calgary)
- *Barry Matthews (Ottawa Centre, observer)
- Clark Muir (Kitchener-Waterloo), Vice Chair
- Andrew Oakes (Unattached)
- Randall Rosenfeld (Unattached), Chair
- Dr. Mark Tovey (London)

*=non-voting members