Heritage Committee: Report to the Board for December 2013

This Report builds on the one submitted to the Board in May 2013.

Present Membership

	Term	Affiliation
Elizabeth Griffin *Chair*	2012–15	NRC/NSI, DAO, Victoria
Richard Jarrell	2011–14	York University
Nathalie Martimbeau	2012–15	Montreal Rio Tinto Alcan Planetarium
David Turner	2012–14	Saint Mary's University
Ian Shelton	2011–14	Mount Allison University
Randall Rosenfeld	2012–15	University of Toronto
Gordon Walker	2012–15	UBC and UVic
Eugene Milone	2012–15	University of Calgary
William McCutcheon	2012–16*	UBC

**Commenced 30 November 2012*

Membership: We would like to extend membership to Dr. David Pantalony, Curator of Physical Sciences and Medicine at the Canada Science and Technology Museum in Ottawa. David is not a CASCA member, and his routine involvement with non-astronomical sciences suggests a special membership category, but this has still to be clarified. David has been discussing with the DAO the future of the collection of artefacts and experiments which are presently in the care of its Centre of the Universe. A bold plan, to set up a "travelling road show" of exhibits that bring both history and science to life through well-designed experiments and displayed at Canadian centres by rotation, has been mooted and will be examined in due course. If realized, the plan would anticipate a major role for the Heritage Committee.

Committee Activities – *Video interviews*: In furtherance of our ongoing project to record interviews with senior Canadian astronomers, during the May CASCA meeting two video interviews were conducted, one of Chris Aikman and one of Chris Purton; Ann Gower (voice only) also contributed to the latter one. The CSTM has confirmed its willingness to continue to archive the recordings.

Following an application from a North American consortium, the AAS is creating a Working Group on "Time Domain Astronomy". That theme will also feature in a Special Session at the January 2014 meeting. Both the WG and the Special Session will bring the issues of protecting and managing Canada's historic observations strongly into the community's awareness.

Individual Activities

Public Outreach and Intellectual Heritage

The broad mandate of the Committee is to pursue activities connected with the preservation of Canada's astronomical heritage, and to stimulate community-wide and (where appropriate) public interest in the history of our science and its relevance to the development of today's policies and research. In that spirit, in June Turner gave a public lecture on astronomy in Halifax, and continues to handle enquiries about stellar imagery as decorative art in public buildings, while in September Jarrell lectured to the RASC's Mississauga Centre on "A Different Kind of Genealogy: Intellectual Family

Trees of Astronomers", the focus being *AstroGen*, an initiative of the AAS HAD. A member of the AstroGen team, Jarrell anticipates an important role for the Heritage Committee in the construction of the Canadian portion of the database, which is expected to include birth date/place and perhaps undergraduate information. Building on his lead involvement in the successful conclusion to a new settlement for the buildings and grounds of the former David Dunlap Observatory, Shelton has latterly assisted in discussions with the Richmond Hill planning authorities concerning light-abatement policies that would allow the Observatory to continue functioning adequately as both an astronomical research facility and an Outreach centre.

Preservation Issues

Griffin reports that over 2300 DAO spectra have now been digitized with the in-house PDS, fully processed, and ingested as FITS files into the CADC together with an increasing fraction of log-book entries from both contributing telescopes (1.2-m and 1.8-m). A volunteer has also modified and applied an OCR technique to 10 years' worth of computer line-printer log-book data from both telescopes (available for 1971-80). Were more funding available, a second PDS could be brought on-line to enable digitization to proceed more efficiently, not only of DAO materials but also of other spectra as requested by others. **Since the DAO is the only site in the world that is currently able to digitize astronomical spectra accurately and precisely, we must capitalize on our present position as world leaders in this activity, and we look to national resources to enable this advantage to be realized.**

The CSTM has expressed considerable interest in preserving the Hydrogen Fluoride absorption cell and gas handling system used for a number of years by Campbell, Walker & Yang in the CFHT "precision radial velocity" search for extra-solar planets. Both David Pantalony (CSTM) and David DeVorkin (National Air and Space Museum, Washington) were keen to put it on display but, despite a thorough search at CFHT, it appears to have been scrapped. A later version used at the DAO in conjunction with the McKellar coudé spectrograph is stored at the DAO, and plans are afoot to move it to the CST Museum. That system was built at UBC, and was used for thesis work by Ana Larson (among others).

In September Rosenfeld gave the keynote address at the ATS conference at the Washburn & Yerkes Observatories: "Old Instruments Aren't Dead – The Case for Experimental Archaeology", on the continued research potential of antique and vintage instrumentation. He also gave a session paper, "Lost in the Realm of the White Squirrel: Plans for the RASC's First Observatory". In the role of consultant he has advised the UofT Astronomy and Astrophysics Department on collections management of its historical artefacts.

In October Griffin led an inter-disciplinary Panel Discussion at "Digital Heritage 2013" in Marseille (France), bringing to the fore common issues which all concerned face in preserving and digitizing historic observations. She raised the same theme in November at "PV 2013", a peripatetic science-data workshop held (this year) in Italy. By adopting and adapting the guidance of astronomy in this endeavour to rescue, preserve and access digitally the potentially valuable pre-digital data from all relevant disciplines, the global solution that needs to be created will both build upon, and benefit, the standing of astronomy in these matters.

Milone has co-authored a second edition of "Solar System Astrophysics" (first published 2008), and expects to see this two-volume work in print in 2014. He also used the Royal Society's on-line archives to verify Herschel's discovery of the Uranian rings.

Publications

Rosenfeld, R.A. 2013, *What to Do When the Astrologer Crashes Your Star Party: Strategies for Making Friends and Influencing Enemies.* JRASC, 107, 5, 199.

Rosenfeld, R.A. 2013, *Review of Alan H. Batten, Our Enigmatic Universe: One Astronomer's Reflections on the Human Condition.* JRASC, 107, 5, 225.

Rosenfeld, R.A. 2013, *Lost in the Realm of the White Squirrel: Plans for the RASC's First Observatory.* JRASC, 107, 6, 264.