Heritage Committee: Annual Report 2010/11

Present Membership

	Term	Affiliation
Elizabeth Griffin *Chair*	2009–12	HIA/NRC
Vic Gaizauskas	2010–11	HIA/NRC
Randall Brooks	2009–12	Canada Science and Technology Museum
Paul Feldman	2009–12	HIA/NRC
Richard Jarrell	2008–11	York University
Nathalie Martimbeau	2010–13	Montreal Planetarium
David Turner	2009–12	Saint Mary's University
François Wesemael	2011–14	Université de Montréal

Future membership:

Dr. Gaizauskas and Dr. Brooks have now resigned, and we record to both our gratitude for many years of service and leadership. We welcome Professor François Wesemael (Université de Montréal) onto the Committee. Professor Jarrell has agreed to serve from 2011–2012.

Committee Activities

Video interviews: In furtherance of our ongoing project to record interviews with senior Canadian astronomers, videos were made of (1) John Landstreet (at University of Western Ontario, London, on September 21 2010) by EG, (2) David Gray (also at UWO on September 21 2010) by EG, (3) John Percy (at University of Toronto on September 23 2010) by EG and RJ, and (4) David Gray (at St Mary's University, Halifax on November 12 2010) by EG. More interviews are to be arranged during the CASCA meeting in May 2011. The videos are archived at the Canada Science and Technology Museum in Ottawa, and can be made available by contacting the Archivist, Dr. David McGee.

Individual Activities

VG submitted the first of two papers entitled "The Grand Schism in Canadian Astronomy" to the JRASC [it has since been published in the June 2011 edition]. The JRASC also published VG's obituary for Jack Locke, first Director of the HIA, in Vol. 104, page 253, 2010.

At the AGM of CODATA (the international Committee of ICSU on Data for Science and Technology) in Cape Town in October 2010 a Special Session on "Data At Risk" learned about astronomy's extensive collections of never-digitized heritage observations on photographic plates. A new Task Group on "Data At Risk" was approved by CODATA, with EG as Chair. The Task Group is moving ahead with its objectives to seek out and inventory the metadata associated with scientific observations which are not in electronic form and cannot therefore be readily accessed and shared. A formal Agreement has been set up between the Task Group and the University of North Carolina, where the inventory will be hosted, designed and managed. Aspects of astronomy's non-electronic records will also be the focus of a special workshop during IAU Symposium 285 ("New Horizons in Time Domain Astronomy") in Oxford (UK) next September.

A start has been made to digitize the DAO photographic spectra and place them in the public domain. The PDS at the DAO was upgraded by an inspired Co-op student last Fall and is

now running every day with little pause. Aspects of the release of those data to the public domain are to be described in a poster at CASCA's May 2011 meeting. However, it has to be noted that the person who is doing the plate scanning is a volunteer with no paid position, so despite the promising start there can be no guarantee for the future unless or until Canadian astronomy provides a paid position for him.

A sub-project of plate-scanning at the DAO was to borrow and digitize all the high-dispersion spectra of ϵ Aurigae from the Mount Wilson archive. ϵ Aur, the famous "enigma" of astrophysics, is an eclipsing object with a period of 27 years, bright enough ($V = 3.0$) to be observed in considerable detail but still a challenge to understand. In parallel, a set of ϵ Aur plates from the DAO's own plate archive, similar in number and quality, was also digitized. The total of some 150 exposures include good coverage of the 1955–7 and 1982–4 eclipses, and are being analyzed by EG in conjunction with new DAO spectra of the recent (and still current) eclipse. This is the first time that such a quantity of historic spectra has been brought online in order to study an object whose properties are currently very topical, and the particular value of including them will be described in a presentation at the May 2011 CASCA meeting. The digitization work was supported by a grant from the AAS, and visits to discuss the analysis are being paid for by the University of Denver.

Other Matters

Concern is being expressed as to how CASCA can best look after heritage aspects of its science. Numerous studies – and that of ϵ Aur is only one such – prove convincingly (if proof were needed) the scientific value of historic data, especially when long time-scales are involved, but their *meta*data (logbooks and other hand-written records) are essential too if the data themselves are to be used correctly. The human and cultural sides of Canadian astronomy also need to be preserved appropriately; observations and results are the products of equipment whose configurations and capabilities rest on decisions made under circumstances that later get overlooked or forgotten if not suitably chronicled. Furthermore, developments in astronomy can be influenced by developments in other sciences, and more communication between those sciences would be mutually beneficial.

The CASCA Heritage Committee is nowhere near the critical mass required to establish and maintain a healthy support group of the kind experienced by the History of Astronomy Division (HAD) of the AAS. Part of the problem is the number of available people in Canada, and that is insoluble, but part is also the isolation of CASCA's heritage interests. The Committee wishes to investigate a solution that could revitalise CASCA's interest and pride in its past *as an indispensable element of its present and future*, while at the same time permitting connections to a broader range of heritage science. We would like to discuss possibilities with members of the Board.