

AUSTRALIAN SCIENCE HISTORY CLUB

Affiliated with the Royal Australian Historical Society

Patron: Dr Ann Moyal AM

Gavan McCarthy

‘Reflexions and Visions:

Looking into the future of the history of Australian science.’

It is extraordinary to think that this is the last talk to be held by the Australian Science History Club. History is the story of change but it is in some ways more confronting when substantive change comes to your own community. There is no question that the last twenty years have been an important era in the pursuit of history of Australian science and technology. The Colonial Science Club (1987-2000) and the Australian Science History Club (2001-2005) are manifestations of community interest based in Sydney and have provided a focus for those of us elsewhere. The Australian Science Archives Project (1985-1999?) and the Australian Science and Technology Heritage Centre (1999-) have endeavoured to facilitate and promote activity in the field. This has been achieved through the salvaging and preservation of archival collections, the utilisation of emerging information technologies to communicate with a wider audience and the development of a research and development program based on the cultural informatics and humanities computing.

This paper will reflect on some of the lessons learned during this period and in particular examine the way new information technologies have changed the way communities of interest are formed and the way they function. For example: what we gained through the development of the web resources *Bright Sparcs* and *Australian Science at Work*, but we lost through suspending the print publication of the *History of Australian Science Newsletter*.

The Australian Science and Technology Heritage Centre is currently preparing for its first major review of operations by the Faculty of Arts at the University of Melbourne. Although reviews can lead to unpredictable consequences, this opportunity is being used to not just reflect on past achievements but to seriously consider how the Centre may best be configured to continue successful operations into the future. The culmination of much of the research and development work undertaken by the Centre over the years led to a major collaborative project with the Australian National University to put the *Australian Dictionary of Biography* online. A working version is presently available for stakeholders and everything is in place for a full launch in July 2006. Technology willing, the ADB online will be demonstrated and discussed with respect to some of the impacts it could have on the future of the history of Australian science and technology.

6:00 pm, Tuesday, 8 November, 2005

**The Discovery Room, Australian Museum
(William Street entrance)**

It seems appropriate to start this talk by reflecting on the activities of the Australian Science History Club over the last 4.5 to 5 years.

The Australian Science History Club

First off, I want to get the record straight, the importance of this will become clear later. So if anybody here disagrees with the following please speak up (and I will take note).

Formed: **12 February 2001** – according to my records this is the date of the letter sent out by Julian Holland noting that the hiatus of operations caused by demise of the Colonial Science Club (18 July 2000) had been bridged. This bridging work was undertaken by Julian Holland and Des Barrett and to them we owe debt of gratitude. But were there previous meetings that could be used as the formal date of commencement? What do the archives show? But does it really matter? For me I like the 12th February 2001 as it is the date the Australian Science History Club entered the public arena.

Also of historic note was the setting up of web site for the club at:

<http://www.usyd.edu.au/su/macleay/ASHclub.htm>

This is more than just passing interest as it significantly assists in the archiving and information preservation and transfer processes.

Cessation: **8 November 2005** (proposed) – for the same reasons as above – it looks like being the last public event of the Club and therefore the last day it ceased its active and conscious role as a community networking agent – sorry for the techno-speak but ‘network thinking’ have become a central theme of my life – more on that later – maybe.

Subscriptions to the Club remained \$20/\$10 for its whole life – almost 5 years. If they had increased subs to cover a generous cost of surviving increase of say 5% we should have been paying subs in 2005 of \$24.31 and over the five years we should have paid an extra \$10.51 into the coffers. What is the point I am trying to make here – it has cost us the members virtually nothing but what we have received is something perhaps more significant than we realise.

As it has been proposed that the activities of the Club be handed on to the ASHET – the Australian Society for the History of Engineering and Technology, I would be quite happy to donate my deemed withheld subscription of \$10.50 to the coffers to ensure that the next generation of the Club gets started on a solid footing.

Australian Science History Club Lectures, Seminars and Activities

As part of the research for this talk I went through my records and have drawn up a summary table of all activities noting type of activity, dates and people. Interestingly I have some gaps in 2005 but I am not sure whether this is me not keeping up with my incoming email.

2001 Program

Lectures:

6 March 2001	Matti Keentok
3 April 2001	Desmond Barrett
5 June 2001	Ann Moyal
4 September 2001	John Mack
2 October 2001	Philip Gissing
6 November 2001	Ian Hoskins

Seminars:

12 May 2001	Geoff Barker
	David Branagan
	Phillip Black
	David Oldroyd

2002 Program

Lectures:

12 February 2002	Jenny Nancarrow
12 March 2002	Claire Hooker
9 April 2002	Ken Wyatt
14 May 2002	Frances Wheelhouse
11 June 2002	Ian Arthur
13 August 2002	John Breen
24 September 2002	Suzanne Kowalski
12 November 2002	Ragbir Bhathal

Excursion:

26 May 2002	<i>David Oldroyd</i>
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Seminar:

26 October 2002	Roy Macleod
	Jim McCaughan
	<i>Claire Hooker</i>
	<i>Matti Meentok</i>
	John Mack

2003 Program

Lectures:

11 February 2003	Pam Esdaile
11 March 2003	Ashely Hay
8 April 2003	Michael van Leeuwin
13 May 2003	Rod Home
12 August 2003	Tony Griffiths
9 September	Clare Bellis
14 October 2003	Matti Keentok
11 November 2003	Barry McGowan

Excursions:

8 June 2003	Parramatta Observatory
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Seminar:
7 June 2003 Carol Liston
Shirley Saunders
Nick Lomb
Alison Morrison-Low

2004 Program

Lectures:
9 February 2004 Kieran Kelly
9 March 2004 *David Branagan*
13 April 2004 John Gascoigne
11 May 2004 Joline Zepcevski
10 August 2004 Joan Webb
14 September 2004 *Ann Moyal*
9 November 2004 Matthew Connel

Seminar:
22 May 2004 Transit of Venus
Desmond Barrett
Brian Greig
Wayne Orchiston
Nick Lomb

2005 Program

Lectures:
8 February 2005 *Tony Griffiths* - NSW
8 March 2005 Ron Ringer - NSW
12 April 2005 David Johnson - Qld
10 May 2005 John Jenkin - Melbourne
15 June 2005 Tim Sherratt – Canberra/NSW
13 September 2005 John F. Brock - NSW
12 October 2005 Alasdair McGregor – ?NSW
8 November 2005 Gavan McCarthy - Melbourne

Seminar: No seminar held in 2005

So what do we learn from looking at the lists of speakers and the events held. It seems that there was a peak of activity and perhaps enthusiasm in 2002 and 2003 which possibly met the latent needs of the local membership. However, it was also during this period that speakers were starting to return for second presentations (or indeed with Matti Keentok – a third paper).

Our community is small and quite specialised and there is probably some sort of limit to the intensity to which activities can be maintained before enthusiasm and attendance start to fall away.

So perhaps the ‘writing was on the wall’ for the Club and it is, indeed, time for a rejuvenation. It seems most fortunate that ASHET was formed when it was and in the

way it was as it is well placed to re-inject our community with another bout of enthusiasm, new ideas and, importantly, a more formal administrative and governance framework. I am of a generation that was very slow to appreciate the lessons of history with regard to the formal running and documentation of meetings, in particular committee meetings. This is strange, on reflection, given my role as an archivist. Perhaps my post-modern archival sensibilities saw these things as arcane relicts of a determinist modernist era and not as records that revealed a highly evolved set of practices that allowed individuals to work collectively in a sustainable fashion. But I digress.

But what of the future, not just in a local sense, Sydney and NSW, but in a national sense. And by that I do not just mean activities happening on a national scale but local activities happening in other places.

From memory I am going to try to list what I know is happening now but please let me know of activities that I miss out. The following are in the order that I thought of them:

- **National Committee for History and Philosophy of Science (1969? -)**, Australian Academy of Science – Do I even have the right name? Who are its members? What do they do? And what do we hear of their activities? I had forgotten that this body still existed up until just a few weeks ago.
- ***Historical Records of Australian Science* (1980 - , Vol 5/1 -)**, Australian Academy of Science – our premier academic journal. Previously *Records of the Australian Academy of Science* (December 1966 – 1980?, Vol 1/1 – Vol 4/3)
- **Australian Science and Technology Heritage Centre (1999-) / Australian Science Archives Project (1985-)**, University of Melbourne – apart from web resources – *Bright Sparcs*, *Australian Science at Work*, the associated national bibliography of HAST and the archival register, what to hear from this body? What do we know of their activities
- **History and Archives Committee, Royal Australian Chemical Institute (1986 -)**, organises history of Australian chemistry seminars as part of the RACI four yearly congress, arranges obituaries for *Chemistry in Australia*. But is there any awareness beyond that community? There is also a chemical heritage group that meets on a regular(?) basis – this is mostly retired chemists – often from industry.
- **Engineering Heritage Branch of the Institution of Engineers, Australia (19?? -)** – similar to the above but I have lost touch with them.
- **Australasian Association for the History, Philosophy and Social Studies of Science (1967 -)** – struggles on but it seems to have difficulty maintaining enthusiasm – the pressures being placed on academics by the changes in higher education funding seem to be having a significant effect here.
- ***Voices of Australian Science and Technology* (1990s -)**, a project initiated by Doug McCann in Melbourne to collect and publish oral histories – stories of people influential in Australian science and technology. Has had funding difficulties over time but is now linked with the Royal Society of Victoria which is distributing its ‘broadsheet’ (A3 folded) of biographical articles.

- **Australian Academy of Technology Sciences and Engineering** – apart from the print publication (1988) of *Technology in Australia 1788-1988*, and its online edition published in 2000 with its subsequent additions to *Bright Sparcs* and *Australian Science at Work*, they do not appear to have had an ongoing program or commission with an interest in history of Australian technology and engineering. Some Fellows are known to be keen and active historians of their disciplines.
- **Dyason Society (1990s)** – a very short-lived attempt to set up the equivalent of the Colonial Science History Club in Melbourne, Victoria but it never got going.
- **Retired honorary research fellows** in the Department of History and Philosophy of Science at the University of Melbourne – this group meets every Friday at University House (usually about 6 from a pool of maybe 12) and includes a range of scientists and engineers (FAAs FTS etc)
- **Disciplinary Activities.** Within disciplines there are sporadic outbursts of historical interest in their fields – for example the monumental *History of Microbiology in Australia* edited by the remarkable Frank Fenner which was a project of the microbiology society.
- **Academic HPS and similar departments** and other selected academics in a variety of universities.

As can be seen, even for allowing for all the activities that I have forgotten about or do not know about, there is actually quite a lot of activity but very little sharing of knowledge and interconnection within the sector.

An Important Issue for the University of Melbourne:

- History and Philosophy of Science at the University of Melbourne does not have a historian with a strong interest in Australian science, technology or engineering on staff. Recent attempts to appoint a new Professor of HPS following the retirement of Rod Home have been unsuccessful.

An Opportunity:

In early 2006, the Australian Science and Technology Heritage Centre will be reviewed as part of the Faculty of Arts policy that all centres should be regularly reviewed and their performance assessed. Interestingly, in the nearly 21 years that I have been actively working in this area – from 1985 with the formation of the Australian Science Archives Project – this will be the first time that our activities have been placed under formal review. As a loosely conceived ‘project’ of the department that continually struggled for funds to maintain in existence, we were, thankfully, outside those formal requirements of the Faculty. Although we could have volunteered for ‘review’ we felt it might actually be better to keep our heads down. Internal investigation at various times revealed that our modus operandi was so far outside University formal policy that it should have been impossible for us to exist. Fortunately, the value we brought to the University outweighed our deviant behaviour and we were viewed with a blind eye.

However, in late 2003, following representations from the Head of HPS, the Dean of the Faculty of Arts, and the Information Division, one of the departing gestures of the Vice-Chancellor, Alan Gilbert, was to approve a strategic funding

allocation to the Centre of \$100,000 per year for three years – 2004-2006 (to be half funded from the VC's funds and the other half from Faculty sources). The allocation of these funds has made a significant difference to the running of the Centre. We had many legacy issues associated with inadequately funded projects from the past, software development delays and no time to invest in building technical capability and skills – that is we needed to skill-up and re-train in some of the key new web technologies.

As you may imagine, we are keen for the funding to continue and the review is the primary means by which we can develop a strong case that can be put to the new VC (Glyn Davis) and the Faculty of Arts (which will have a new Dean in 2006). Unfortunately, despite the Faculty of Arts at the University of Melbourne being rated number 8 in the world and number 1 in Australia by the *Times Higher Education Supplement*, they are about to face one of the most critical financial crises in their history. It has been indicated to us that we should keep our expectations under control and be prepared in case funding is not continued for another three year period.

Much closer to the present, is the announcement of the successful Australian Research Council grant applications tomorrow. This will have a huge impact on the shaping of our budget and work program for 2006. In particular, is the success or otherwise, of our collaborative ARC Linkage Information Infrastructure project with the Australian National University to put the *Australian Dictionary of Biography* online. The ADB Online will be launched on 6 July 2006 in Canberra as part of the Australian Historical Association conference. The test and development version is already online – but not at its final web address. And Yes – it will be available for free, no subscriptions will be required, all 8 million words of volumes 1-16 will indexed by Google as well as its own internal search engine, each entry will be electronically citable, all the corrections and corrigenda have been included, we have tried very hard to make it accessible to wide range of technologies and web browsers, and the process of updating entries will be opened up.

With the ADB funding we will be in strong position for 2006 and into 2007 – and it will make good positive reading for the review committee. Without the ADB funding some of our casual staff will have to go and it will be back out onto the hustings to look for new fundable projects.

However, I am keen for the review committee to examine the role the Centre could play for the broader history of Australian science and technology community and in particular, to reflect on how best to use contemporary communication technologies in a way that best suits the our community.

In the early 1980s, as part of a broader strategy to improve the position of history and archives of Australian science, Rod Home established the *History of Australian Science Newsletter*. HASN, as it became known, predated the formation of the Australian Science Archives Project (1985-1999~). Rod edited and produced the first 20 or so editions then I took over as editor for a smaller number of editions before Tim Sherratt took over the reins. The newsletter was distributed free to anybody who was interested with the production and postage

costs funded by the Australian Academy of Science. At its peak the newsletter mail-out reached several hundred interested people directly and probably at least a similar number indirectly.

Then along came desktop publishing software and the web. The production values and the size of the newsletter increased to a point where it became a burden that consumed more funds and energy than budgets (financial, emotional and intellectual) would allow – a form of network burnout. The web and email seemed to offer a way out of this dilemma. We had already shown by 1995, through *Bright Sparcs*, that there was a vastly larger audience interested in the history of Australian science than we had ever been able to reach via mail and print media. HASN was already being published on the ASAP web site so it was decided to cease print publication altogether and rely on email lists to let people know what was going on. Two listserves were set up: the Science, Technology and Medicine Archives (STAMA) listserv and the History of Australian Science and Technology listserv.

While *Bright Sparcs* and its associated online resources have gone from strength to strength, the listserves became moribund and without the discipline of the print medium the online HASN failed to be produced. So we have ended up in a position where we have relatively weak links with a vast number (and I really mean vast number) of people that comprise our broad user and interest base. *Bright Sparcs*, as a brand, is much more widely known than the Centre or me personally. However, we do not have strong relationships with the relatively small number of people who have an ongoing professional or just passionate interest in the field. In network terms, we created a node with many, many weak connections but we lost a smaller cluster of nodes bonded by strong links and multiple relationships.

The Centre is internationally recognised as being a leader in the field of provision of cultural information in a sustainable electronic form – examples of this come from my recent work with the International Atomic Energy Agency on radioactive waste information management, a visit from a Korean journalist last month and just last Monday a delegation of 17 from the China Association for Science and Technology and related organisations came to discuss the building of a Chinese Digital Museum of Science and Technology.

However, we are not well connected with our closest allies and those that we would like to be serving directly – and those with whom we form easy bonds of friendship and respect.

So what to do? How can we best use the current communication and information technologies to meet our needs? What I would like to do is propose the following ideas. They are based on a set of core assumptions.

Assumptions:

1. Austehc will survive on into the future no matter what the results of the review.
2. Austehc is in a position to play a national information distribution role by virtue of the core information resources we already have in place namely:

Bright Sparcs (nearly 5,000 entries), *Australian Science at Work* (about 4,000 entries), the *Bibliography of History of Australian Science and Technology* (going onto 9,000 citations) and our *Register of the Archives of Science in Australia* (maybe 3,000 collections?)

3. That in the near future *Bright Sparcs* and *Australian Science at Work* will be amalgamated (new name: ASAW incorporating BS, or maybe BS and Work, any other ideas?). This will enable the mapping of relationships between people and organisations, concepts and themes, places etc.
4. Austehc is probably the best funded body in the field and should be playing a more prominent leadership role.

So here, at last, are some ideas for consideration.

Ideas:

- Create a full and detailed entry in *Australian Science at Work* for the Australian Science History Club including a full chronological listing of all activities including talks, seminars, excursions and outings. Register all lectures and seminar papers in the HAST Bibliography including their full abstracts and biographical notes. Link all these bibliography entries to the ASHC entry- this leads to the creation of a citation page that lists all bibliographic entries in alphabetical order by type (talks and seminar papers). Once the ASHC records have been archived (and lodged with the Royal Australian Historical Society), create an archival collections registration. Add a photograph of a group attending the final meeting to ASHC entry – (be warned we will need to take this photograph when I finish talking). All of this should be relatively straight forward as most of this text is already in digital form and on the ASHC web site (I have already made a copy of this site onto our offline server to make the ‘cut and paste’ easier – and in case the original site is lost).
- Investigate, including finding funding for, doing all of the above for the Colonial Science Club but this will be more problematic as I am not sure how good my records are and I do not have digital versions of the notices (the key records). Perhaps if these exist, an attempt should be made to get copies as part of the archiving process.
- Create a few sample *Bright Sparcs* entries for key ASHC people (entries already exist for Ann Moyal, Rod Home, Libby Robin and a few others) with links to their ASHC and CSC talks and seminar papers as well as other citations already in the bibliography. Only the entries for myself and Libby Robin have been extended in this way – for me it was a way of having a comprehensive CV and bibliography online that was easy to maintain, as well as providing a means for testing out the protocols for bibliographic data entry and the typing of citations.
- Investigate, including the finding of funding for, how we might extend this to include all people who have contributed to ASHC and CSC.
- Provide the same services for ASHET – once the backlog is done this should be relatively quick and easy to do when each notice comes out – however, due to the delay in re-loading *Bright Sparcs* etc to the web – this only happens about four times each year this should only be seen as a means of establishing a historical record.

- Re-commence the print and online publication of the *History of Australian Science Newsletter* but with a much clearer understanding and negotiated statement of what it is to achieve. Clearly, judging from the list presented earlier there are many sources that could provide news items or even after the event reporting. The HAST bibliography could be used to provide details of talks, abstracts, seminar papers etc online which would allow the newsletter to remain a reasonable size, keeping mailing and production costs low. Some thought would be needed to be put into the management of the recipient list (both electronic and mail).
- Work with ASHET and other bodies on developing the HAST bibliography and the associated contextual databases (BS and ASAW, and the RASA) as a shared resource for the whole community. In particular work with ASHET on the proposed Theses of History of Australian Technology and Engineering bibliography project.

Unfortunately, it does not look like the technology will allow me to show you the ADB online draft site. This is probably just as well as I would not have gone into the above issues in as much depth. However, if anyone would like to explore the test site, get in touch with me by email and I will send you the URL – I have plenty of business cards with me.

Thank you and best wishes for an exciting future.