



ENCYCLOPEDIA OF

AUSTRALIAN SCIENCE AND INNOVATION



A gateway to the history and archives of science, technology and innovation in Australia

[Gavan McCarthy](#) | [Swinburne University of Technology](#)

Thinking of the future while looking deep into the past: the continuing evolution of the Encyclopedia of Australian Science and Innovation

See pdf version: <https://eoas.info/bib/ASBS16789.htm>



27TH INTERNATIONAL CONGRESS OF HISTORY OF SCIENCE & TECHNOLOGY

ICHIST

29 JUNE - 5 JULY 2025

PEOPLES | PLACES | EXCHANGES | CIRCULATION

Journalist of the past

I am often asked what I am or what do I do.

I do not see myself as an historian of science or technology or anything really. I have often used the tag “science archivist” or “archivist” or “relational social and cultural informatics” specialist.

But I now prefer the term “Journalist of the past”. Journalism is based on the 5 Ws: **Who, What, Where, When, Why** – and this is exactly what we attempt to document in the *Encyclopedia of Australian Science and Innovation* – but to this we add an H – **How**.

How do we know what we know? How did we come to know what we know? How have we forgotten stories that we must remember? How can we help the reader of the future to grasp the actuality of the past which is complex, contextualised and incomplete.

Encyclopedia of Australian Science and Innovation - Abstract#1

The data and the data structures that underpin the "Encyclopedia of Australian Science and Innovation" (<https://eoas.info/>) has been under continuous evolution since its beginnings in 1985 when it was established as a core activity of the Australian Science Archives Project (1985-1999).

Since its move to Swinburne University of Technology in 2021 and its rebranding, and through the dedication of the [volunteer data curation team](#), the scale, quality and depth of content has increased substantially.

New editions are published every three months, and it is anticipated that by the ICHST there will be over 10,000 entity entries and 28,000 bibliographic entries.

<https://eoas.info/>

Data Overview

In all, there are well over 2.3 million data elements captured in 44 data tables. The data can be made available in postgresql format and json-ld courtesy of project with the [Australian Research Data Commons](#).

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Edition: 2025 May (Gwangal moronn - Gariwerd calendar - Autumn: late March to end of May - season of honey bees)

Reference: <http://www.bom.gov.au/iwk/calendars/gariwerd.shtml#gwangal-moronn>

Publisher: Swinburne University of Technology

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Encyclopedia of Australian Science and Innovation - Abstract#2

This presentation will re-introduce the Encyclopedia and examine, by way of examples, its evolution.

The examples will be chosen to highlight the relative silence of entries with respect to Australian First Nations' knowledge and knowledge systems.

Theme

Australian First Nations

Summary

"Australian First Nations" is a high level thematic entry that acts as the foundation of a model linking the knowledge of law, culture and country of Indigenous Australians with the history of Western science in Australia, which was the original focus of the Encyclopedia and its predecessors. This theme is an experiment and an embodiment of the tradition of a living archive. As we work with our First Nations' colleagues on the development of this and many related entries, the plan is that bridges and gateways will emerge that will assist individuals and communities with their learning and research.

<https://eoas.info/biogs/P007140b.htm>

Encyclopedia of Australian Science and Innovation - Abstract#3

The [original focus of the encyclopedia](#) was to assist historians of science find relevant archival collections documenting western science in Australia buried in the distributed and unconnected collections held across the country.

The entries were unintentionally silent on the impact of western science on Australian First Nations and perpetuated the "systemic forgetting" that [WEH Stanner](#) brought to the Australian consciousness in 1967.

The formal registering of Australian First Nations ' knowledge and ways of transferring knowledge across generations had not been attempted.

In addition, the impact of the actions of Australian First Nations on the trajectory of science in Australia was not consciously addressed. In the spirit of 'truth telling', this is our challenge.

But these are not the only challenges.

Encyclopedia of Australian Science and Innovation - Overarching theme

Policy, Patriarchy, Gender and Race: their influences on Australian Science

Marriage Bar Legislation 1902 and 1922

Attitudes of male scientists to the employment of women

Embedded systemic racism and disenfranchisement

How do we tell these stories given the 'matter-of-fact' information model of the Encyclopedia?

First Nations' knowledge – Western assumptions

Masson, David Orme (1858 - 1937)

A well-respected academic chemist but like so many of his generation was heavily influenced by the white-male-oriented views of the time as embodied in 1901-1902 Commonwealth legislation and policies. These views influenced politicians via the reports, that he authorised or wrote, of the Advisory Council of Science and Industry in 1917 and 1918.

See: Commonwealth Franchise Act 1902; Immigration Restriction Act of 1901; White-Australia Policies

Advisory Council of Science and Industry (Australia). Executive Committee. (1917) Report

B.-FOREST AND VEGETABLE PRODUCTS.

1. General. —The vegetation of Australia is highly peculiar, a great number of the commonest and most widely distributed plants of the continent being quite distinct from those of other countries. Many whole groups of plants, including the genus Eucalyptus, which includes most of our forest trees, are entirely Australian. The fact of this high degree of peculiarity in our flora renders it essential that for the full development of the forest and vegetable resources of our continent researches into the products of all our indigenous plants should be conducted. It is not improbable that work of this nature may reveal new oils and drugs of importance to mankind, new sources of dyes and tannin, or timbers specially adaptable to certain particular uses. Most of the drugs, spices, &c., of India and America were discovered and utilized by the natives of those continents before intercourse with Europe opened up a trade in these products. **In Australia, however, the natives made very little use of the indigenous plants for such purposes.** In the early days of settlement primitive experiments were made, and the useful properties of some Australian plants discovered.

Image of page: <http://nla.gov.au/nla.obj-2004810439> page 26

Report of the Executive Committee of the Commonwealth Advisory Council of Science and Industry: covering the period from the date of the appointment of the Executive Committee (14th April, 1916) to the 30th June 1917

Amy Marion Elliott (1874 – 1913)

Amy Elliott, in 1898 was the first woman Bachelor of Science from the University of Tasmania, and its first Master of Science of either sex. She belongs to a vanguard of middle-class women who accepted the challenges of a higher education in the late nineteenth and early twentieth century. She died of 'chronic brain disease' in 1913 following the breakdown of her employment with the Commonwealth Public Service in Melbourne in late 1903.

<https://eoas.info/biogs/P007744b.htm>

Why did this happen?

How do we tell such a story?

Why did we not know this story until 2025?

The Commonwealth Public Service Marriage Bar - 1902

(d) for prescribing the rates of salaries or wages for women employed otherwise than in the Clerical Division, and the terms upon which **the service of female officers may be dispensed with upon their marriage**. Provided that nothing herein shall be taken to permit the employment of any married woman except upon the certificate of the Commissioner in each case that such employment is desirable;

Commonwealth Public Service Act 1902 (NO. 5, 1902), page 286 (pages 261-287)

https://classic.austlii.edu.au/au/legis/cth/num_act/cpsa190251902309/

Fuller, Mary Ellen (1905 - 1938)

Mary Fuller, an entomologist with the Council for Scientific and Industrial Research 1929-1938, published in 1934, *The Insect Inhabitants of Carrion: a study in Animal Ecology* as Volume 82 of the CSIR Bulletin. She was a key member of Blowfly Research Investigation team. Her death, by suicide in 1938, was a tragedy that reverberated within CSIR and the wider community.

<https://www.eoas.info/biogs/P007690b.htm>

Why did this happen?

How do we tell such a story?

Why did we not know this story until 2025?

The Commonwealth Public Service Acts – 1922 (to 1966)

" Officer" means any person employed in any capacity in the Public Service, whether appointed or transferred thereto before or after the commencement of this Act, but does not include a person temporarily employed;

This is encouraging but the pronoun 'his' is used 90 times in the 1922 Act.

The Commonwealth Public Service Marriage Bar – 1922 (to 1966)

49.-(1.) No married woman shall be eligible for employment, either permanently or temporarily, in the Commonwealth Service, unless the Board certifies that there are special circumstances which make her employment desirable.

(2.) Every female officer shall be deemed to have retired from the Commonwealth Service upon her marriage, unless the Board certifies that there are special circumstances which make her employment desirable.

Commonwealth Public Service Act 1922 (NO. 21, 1922), page 83 (pages 65-109)

https://classic.austlii.edu.au/au/legis/cth/num_act/cpsa1922211922309/

The Commonwealth Public Service Marriage Bar lifted – 1966

Public Service Act 1966 (NO. 47, 1966) – no references to women or marriage; ‘his’ used 28 times

https://classic.austlii.edu.au/au/legis/cth/num_act/psa1966471966179/

Formal demise of the White-Australia Policy was 1973.

Where to now? 2025-2030

What we should be able to report on at the next Congress?

Whatever else we will be talking about how we are using AI to bring productivity gains to our work – in particular what works and what does not work.

Thanks for listening.

The last slide is a list of sources that we use everyday and needless to say we work closely with Wikimedians and Wikidata in our collective endeavour to be trusted journalists of the past.

Last Slide - almost

Other useful resources

- [Historical Records of Australian Science](#), Australian Academy of Science and CSIRO Publishing. The history of science, pure and applied, in Australia, New Zealand and the southwest Pacific.
- [Trove](#), National Library of Australia. Australia's free online research portal. Trove is a collaboration between the NLA and hundreds of Partner organisations around Australia, including this Encyclopedia.
- [History of Australian science](#), Australian Academy of Science. An introduction to the historical resources of the Academy.
- [CSIROPedia](#), CSIRO and Swinburne University of Technology. Innovation shaping Australia and the world since 1916.
- [IsisCB Explore](#), An open access discovery service from the History of Science Society; built on 50-years of data in the *Isis Bibliography of the History of Science*.
- [Biodiversity Heritage Library](#) improves research methodology by collaboratively making biodiversity literature openly available to the world as part of a global biodiversity community. An advanced subject search of "Australia" is good starting point.
- [Guide to Australian Business Records](#) Archive Edition 2025. This guide provides links to archival and published resources relating to Australian business entities and people involved with those entities.