

# REVIEWS

Edited by Adrian Cunningham

## PUBLICATIONS

**Australian Society of Archivists Inc**, *Directory of Archives in Australia*, The Society, Canberra, 1998. xviii + 186pp, A4 spiralbound. ISBN 0 947219 12 9. \$40.00.

This publication is something of a bibliographical curiosity. It is a report printed from the online database that comprises the actual *Directory of Archives in Australia*, with introductory material added to round out the hard copy version. This is apparent in the page footer information, which gives different dates for the two different sections, and in the confused cataloguing-in-publication details.

The unravelment goes something like this. The ASA first published a directory of archival and manuscript repositories in Australia in 1983 (Olga White, Anne-Marie Schwirtlich and Jennifer Nash, *Our Heritage*). This superseded a short directory compiled by Gerald Fischer and published by the Archives Section of the Library Association of Australia in 1969. The 1983 directory was itself replaced by the *Directory of Archives in Australia* (Susan Burnstein, Vanessa Goodhew, Barbara Reed and Guy Tranter) in 1992. The data collected for the 1992 directory was retained in electronic form, and 'published' on the World Wide Web in 1996.

This WWW version has become in effect the real *Directory of Archives in Australia*. The data is regularly updated - on a quarterly basis officially, but more quickly in my own recent experience. According to the ASA Managing Editor (in a communication to the Aus-Archivists Listserv, 26 May 1999) there will be further development work to make standard reports available to facilitate data interpretation. This raises the possibility of linking the *Directory* in a useful manner with that other key industry tool, the ACA archival statistics, but may be overtaken by other developments referred to in the final sentences of this notice.

The URL for the electronic Directory is  
[http://www.asap.unimelb.edu.au/asa/directory/asa\\_dir.htm](http://www.asap.unimelb.edu.au/asa/directory/asa_dir.htm)

The paper edition noticed here is a report comprising selected fields of information for each archival program that has contributed information, updated to November 1998. The entry for each contributing program follows the format established for the 1992 publication: name, address, postal address, contact numbers, title of the officer in charge, details of

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hours and facilities, access conditions, acquisition focus, brief notes of major holdings and acquisition focus, and quantity of records in custody.

Contact numbers include Internet e-mail address and URL where applicable, which unsurprisingly were not included in 1992 or requested in the data collection instrument.<sup>1</sup>

Not all fields are filled for all contributors, and as usual in such exercises the trade-off for attempting to provide comprehensive coverage of the industry is unevenness in the quality and completeness of the individual entries. Nor could I find any reference, in the introductory material, to a mechanism to ensure coverage is systematically extended to new archives programs that may be established in Australia.

Each entry shows the date it was last updated. The usefulness of this innovation is limited by the absence of any indication whether it might refer to a total overhaul of an entry, or to a single correction that came to light which might have left other information out of date. It behaves all programs that have ever contributed information to the *Directory* to check the electronic version regularly for currency and accuracy, and provide up-to-date information when details change. It is a great opportunity for programs to keep their information timely, but also a new responsibility. It is no longer possible to rely on a passive strategy of waiting for the next data collection instrument to arrive through the post.

This could be a problem for some programs. The Streaky Bay School Community Library entry is identical to that found in the 1992 *Directory*, apart from the Austel changes introduced during 1996. Perhaps things don't change too fast at Streaky Bay, but I wonder if they know the information they provided almost a decade ago is still riding the ether?

The Introduction makes it clear that this paper reprint of the *Directory* has been published in recognition that some potential users may not have easy access to an Internet connection. This is a worthy purpose, but one that will soon be impossible to sustain. My own institution will soon be requesting the deletion of all the information in our entry in the *Directory of Archives in Australia*, to be replaced with a link to our URL and nothing more. I suspect we will be neither the first nor the last.

### Endnote:

1. The earliest reference I have been able to find to the use of Internet e-mail by archivists in Australia is in *Archives & Manuscripts* May 1992 p187. There is nothing in *Keeping Archives* (2nd edition 1993).

Mark Stevens

City of Sydney Archives

**Murtha Baca**, editor, *Introduction to Metadata: Pathways to Digital Information*, Los Angeles, Getty Information Institute, 1998. vi + 41 pp. ISBN 0892365331 \$US9.95.

Despite the fact that 'metadata' has become the buzzword of the late-1990s, there are comparatively few books dealing with even its basic concepts. A recent search on amazon.com, the world's largest on-line bookstore, reveals only 13 publications with the word metadata in the title. The collection of essays which is the subject of this review is one of that small number.

The first piece, "Defining Metadata" by Anne J. Gilliland-Swetland of the Department of Library and Information Science of the University of California, Los Angeles, gives a concise but comprehensive general overview of what metadata is and is not and why it is important. It emphasises the crucial point that different communities understand different things by the term metadata. Gilliland-Swetland has an impressive record of activity and teaching in archival science and records management, so her apparent lack of awareness that there is such a thing as recordkeeping metadata is to be deplored (her categorisation of metadata types in Table 1 spreads recordkeeping metadata across the categories of administrative metadata and use metadata). Demonstrating a frustrating resistance to ideas from the rest of the world, Gilliland-Swetland refers often to the 'life cycle' of information resources, despite the fact that her diagram of the "life cycle of objects contained in a digital information system" (Figure 1) is in fact an obvious continuum. Despite these examples of American parochialism, the essay is a useful introduction to metadata and serves to set the tone of the other chapters in the collection.

The next essay is "Metadata and the World Wide Web" by Tony Gill of the Surrey Institute of Art and Design. This piece offers a brief review of the astonishingly rapid development of the World Wide Web and the proliferation of information resources that has resulted from such explosive growth. Gill discusses competently the issue of cataloguing web resources and the near-impossibility of successfully locating the needle of information sought in the haystack of pages accessible on the Web. This discussion leads neatly into the development of resource discovery metadata, but it is here that this helpful and so-far accurate essay loses its way. Acknowledging the increasing interest in resource discovery metadata standards as a way of providing distributed cataloguing of web resources, Gill limits himself to discussing 'three current, closely related sets of metadata elements that are particularly pertinent for the Web environment: Alta Vista <META> tags, the Dublin Core, and the Resource Description Framework'.

Anyone with any understanding of resource discovery metadata standards will recognise the confusion in this statement. <META> tags are a standard

part of the HTML specification and neither a set of metadata elements nor anything to do with Alta Vista *per se*. That the Alta Vista spider will index HTML <META> tags in web pages which use element names *Keyword* and *Description* might be commendable (an arguable proposition) but this does not mean Alta Vista has developed a set of metadata elements. Similarly, the Resource Description Framework (RDF) does not qualify as a set of metadata elements either. RDF is a means of expressing metadata elements, defined by a schema like Dublin Core, using eXtensible Markup Language (XML). RDF is a practical implementation of the container architecture described by the Warwick Framework, but is not in itself a metadata set. Of the three “sets” described by Gill, then, only Dublin Core (DC) is a set of resource discovery metadata elements. Gill perhaps underplays the world-wide influence of Dublin Core, but this is really a minor quibble about what is a competent and lucid explanation of the DC metadata set.

Lest I seem too critical of Gill I hasten to repeat that up to this point his essay is a highly readable and valuable discussion of resource discovery issues on the World Wide Web. He raises the difficult issue of how to deal with copies of original works (‘surrogates’), a contentious matter being grappled with by the DC community at the moment, and the question of how much detail is needed in resource description (‘granularity’), and concedes that, although the DC 1:1 rule addresses the surrogacy issue, the jury is still out on both these questions. Overall this is a fine discussion of metadata and the web.

The third essay in this collection is titled “Crosswalks, Metadata Mapping, and Interoperability: What Does It All Mean?” by Willy Cromwell-Kessler of the Research Libraries Group. In this essay Cromwell-Kessler discusses the significant and difficult issue of the proliferation of metadata standards and how interoperability is made more difficult by the different conceptual bases of the existing standards. Crosswalks and mappings are introduced as one way of showing the relationships between different metadata standards and how translations from one standard to another might occur. This short piece stands as an excellent introduction to a less useful crosswalk/mapping of a number of different metadata sets, compiled by Murtha Baca, Joseph Busch, Willy Cromwell-Kessler, Tony Gill and Patricia Harpring. Included in the crosswalk are:

Categories for the Description of Works of Art

Object ID checklist for tracking lost or stolen art works

The CIMI standard for description of cultural heritage resources

Guide to the Description of Architectural Drawings

The Visual Resources Association standard for describing visual objects

Museum Educational Site Licensing project for licensing of museum images

Record Export for Art and Cultural Heritage for exporting museum management

Data

USMARC

Dublin Core

The crosswalk is interesting, and probably valuable to someone who is already familiar with metadata standards. In the absence of some explanation of the conceptual models which underlie those standards, this crosswalk, with its glaring American bias, will seem nothing more than an academic exercise for most readers.

A rather perfunctory conclusion is followed by a useful glossary for the uninitiated, and an explanation of acronyms used in the essays.

The editor sets out the purpose of this volume in the first sentence of her Introduction: "A primer for an important but misunderstood...aspect of the age of information: metadata." As such this collection fills an important and, until now, overlooked niche. It provides a brief but generally useful and comprehensive overview of metadata issues that should appeal to those just setting out on the intricate and compelling metadata journey. Unfortunately, the work exhibits some confusion about its intended audience. The last section of the booklet on crosswalks, in particular, demands a deeper knowledge of metadata from its audience than the word 'primer' would suggest. However, that should not deter prospective purchasers from obtaining a copy of this valuable introduction to metadata.

I end this review with another quote from the editor, a thread that runs through all of the essays in this booklet and which we, all of us, must take to heart: "we can no longer afford to be loners, working in isolation with no idea of what others are doing. We must work together to pave the way to new paths to knowledge".

Andrew Wilson

National Archives of Australia

**Jan Critchett**, *Untold Stories - Memories and Lives of Victorian Kooris*, Melbourne University Press, 1998. 283pp. ISBN 0 522 84818 4. \$29.95

Every family has its secrets. Stories that are known to a few, but not passed on or not shared outside the family. For family historians uncovering these

forgotten or half-remembered facts or events is part of the thrill of the chase. The stories can be confronting, or surprising, and many hours are spent linking the legends to the evidence in archives.

For family historians the task is formidable. For those seeking to piece together the stories of the Koori people, the task is much harder. The policies of successive white governments broke the vital links in families and tribe, dismissed as superstition the connection of people to land, tried to silence oral tradition and oral history, attempted to ensure that the story remained untold.

This book starts to give new voice to those stories. Through patient scholarship and respectful collaboration with Koori people, Jan Critchett has provided a vivid account of the attempted destruction of the Koori people of Western Victoria. Critchett's evidence in this account is drawn from many hours of listening to Koori elders, and from the records held in the National Archives and Public Record Office Victoria.

The oral and written sources are often contradictory. Critchett points out that the archives contain scant evidence of the many massacres committed against the Koori people, despite the knowledge of these events that has been passed down through story (p. 230). The archival records contain letters and other documents written by Koories, but they are part of the official record of the successive government institutions established to control and contain the Koori people. In contrast, the stories generously shared with the author by Koori elders do not have this constraint - there is a freshness and immediacy in their telling.

This contrast is used to great effect in the book. Chapters drawn from archival evidence are written in a standard scholarly style, while chapters that rely on the interviews are presented as transcripts - the reader hears the stories directly.

A powerful example of the link between the oral and written evidence is in the story of Wilmot Abraham. Early this century Wilmot was popular with photographers and artists who would find him in Warrnambool, and make pictures of him as "the last of his tribe". What was not known, what was almost forgotten, was that Wilmot shared two tribes: the Koori people; and, the Allan family - early squatters on the rich land outside Warrnambool. This untold story almost went to the grave with the last member of the family who knew the tale. Her story, told not long before she died, was that Wilmot, growing old and tiring of the itinerant life, appeared one evening at the Allan family homestead and announced: "I'm Wilmot, I'm your half brother, and I'm here to stay. This is my home." (p.44) Jan Critchett's informant gives full voice to the irony. "...Wilmot, instead of being one of the last of the 'full-bloods', was actually first of the 'half-castes'" (p.45)

Another chapter tells in the most moving way the story of Geoff Rose, stolen from his family at six years of age, taught through successive institutions (which included an orphanage, the Navy, and the security intelligence service) to forget his past, to keep secret and untold his Koori story. His son, Mark, now living and working in Melbourne, recounts his discovery after the death of his father of his Koori heritage, and how this truth is helping to heal the awful consequences of that original abduction.

By weaving the oral and written evidence together, Jan Critchett has shown that the untold stories of the Koori people of Western Victoria, are stories for all Australians. And the story is not remote. It is recent, it is fresh in the memory of many. It is only two or three generations that separate us from the time of dispossession and attempted destruction, and some of our own generation share in the burden of being stolen. The personal, individual tales in this book are about the way this society has grown and knowing these stories is a vital part of the way it can go forward. *Untold Stories* is a powerful book, a reminder of the importance of the archival evidence kept for all Australians, and it is a book that should be widely read, as part of our common family history.

Shane Carmody

National Archives of Australia

*Electronic Access: Archives In The New Millennium: Conference Proceedings 3-4 June 1998*, Public Record Office, Ruskin Avenue, Kew, Richmond, Surrey, TW9 4DU, 1998. 150 pp ISBN 1 873 162 74X, pricing unavailable.

This Conference, held at the Public Record Office in London, had two purposes. The first was to provide a showcase for the work European archives are undertaking to make their records and other resources more available to the public through electronic access. The second purpose was to address the challenge of electronic recordkeeping in Europe. The papers in the proceedings fall in three groups. The first group is really a 'show and tell' of initiatives being undertaken by the PRO and other archives to improve access to their records and to raise awareness with the general public. The second group of papers discusses joint projects, case studies and other initiatives being undertaken in the area of electronic recordkeeping. The third, and in my opinion most interesting, group of papers looks at education and training in electronic recordkeeping.

The first group of papers holds no great surprises for Australian archivists. The projects being done by the institutions concerned to improve the

accessibility of their holdings are very similar in nature to similar projects being undertaken here. That is to say, the papers discuss various strategies for digitising finding aids and selected, heavily used groups of records and making them more widely available through some sort of network, primarily the Internet. What makes these projects interesting is how these organisations are managing joint initiatives across cultural boundaries.

The description of these initiatives is understandably general, given the nature of conference proceedings. Some papers do, though, go into some detail about archival descriptive standards. The projects range from high-level networking such as the Scottish Archives Network (SCAN), which is aiming to create a electronic access network to archives institutions in Scotland through their web sites and their highest level finding aids, to the more detailed projects being undertaken at the PRO and the National Archives of Sweden.

What I found particularly interesting was the way some organisations are managing the digitisation of legacy paper-based records and finding aids. The PRO is managing retrospective conversion of lists by outsourcing data entry to an off shore contractor in Mauritius. Photocopying some 300,000 sheets of lists that are flown to Mauritius for retyping. As the typists have no archival background or any knowledge of PRO finding aids, the lists are sent with detailed instructions. The electronic lists are sent by satellite link to Kew for rough 'sanity checking'. If the list passes muster here, Mauritius is instructed to send the hard copy lists to Kew so the PRO quality controllers can do final amendments. Truly fascinating stuff. The National Archives of Sweden is using one thousand unemployed people over a six-month period to do the same to their lists.

The papers on electronic recordkeeping issues covered a range of initiatives and case studies, which again, give Australian archivists nothing really new to learn. It is somewhat dispiriting to read about projects in British archives where they talk about the life cycle of electronic records and the need to start appraisal 'as early as possible' with electronic records. One notices in some of the approaches to electronic recordkeeping a certain traditional archives 'reluctance' to be forceful and proactive and move electronic recordkeeping responsibility to the agency. There is a reluctance to 'lock agencies into proprietarial applications', and, conversely, a goal of taking responsibility for long-term management of electronic records away from agencies and into the custody of the archives.

A paper written by Ian Macfarlane of the PRO about electronic records management systems made for better reading, as he describes an approach similar to those being undertaken here and in North America in supporting

organisations to carry out better recordkeeping. The electronic document and electronic record strategic user project case study from the UK Department of Health was impressive, as the team has implemented a very sound recordkeeping strategy and has given equal weight to recordkeeping, technology and people issues in the design and implementation of the project. They are aiming quite rightly for a user-friendly desktop to encourage all users to fulfil their recordkeeping and document management obligations.

I thought the most interesting part of these proceedings were the four final papers on electronic recordkeeping training and education. The papers focussed on the core competencies and profiles required by those involved in all aspects of education and training, and look at a number of training initiatives being undertaken in Europe. These papers would be very relevant for those undertaking electronic recordkeeping-related work in Australia. Some of the particular challenges of providing the right education for the right audience are well considered in these papers.

In conclusion, this publication will be of interest to many for some of the peripheral issues discussed rather than the two major themes. They do give a good indication of where Europe is heading in relation to cutting edge challenges such as privacy and data protection, digital signatures and freedom of information and how these affect greater accessibility and other recordkeeping issues. It is impressive to see how the records and archives committees of the European Union are trying to develop and implement directives and standards that can cope with the legal and cultural differences between the various member countries.

Tony Newton

State Records Authority of NSW

**Chris Hurley**, *The shredding of the "Heiner" Documents: An appreciation*, March 1997, available freely from the Records and Information Management On-Line Service (RIMOS) at <http://www.calderson.com/RIMOS/heiner.html>

Chris Hurley has a passionate interest in what has become known as "The Heiner Affair". This document is evidence of that passion, imploring the archival community to take an equal interest in the affair and its consequences for our profession.

Hurley begins with a concise background and account of the events, which commenced the Heiner affair. He then provides a cast of characters and selected chronology before leading readers through what he sees as the seven key issues raised by the case.

The broad questions he raises (and explores in some detail) are: Does the Archives have “unfettered discretion” in deciding on disposal of Official Records? Is the Archives obliged to obey Government direction in disposal cases? Should records be destroyed if they are required in evidence? Should the Archives disallow destruction in the interests of political litigants? What is the purpose of the Archives’ discretion? What can Archives do to prevent destruction adverse to citizens’ interests? Should the Archives be limited to questions of “historical value”?

In the document, Hurley brings together the range of decisions, arguments, court transcripts and reports that have been at the centre of the Affair. He also, where relevant, introduces his broad knowledge of the legislative and regulatory environments in comparable jurisdictions in a successful effort to provide a balanced view of the Queensland events.

Many issues raised by Hurley have far-reaching implications for archivists and the community in general. If, for example, ‘there is no statutory obligation on the Government or the Archivist to consider, before destroying records, the implications of legal proceedings which have been “threatened” but not yet instituted’ (Section 2.7 - argument of Queensland Crown Solicitor), what might become of the countless records in government agencies across the country which may be required to support native title claims yet to be made? Hurley also raises the 1990s ‘hot potato’ of government accountability when he poses the questions

‘Is it...suggested that accountability requirements should be subordinate to efficiency? What tenable view of public sector efficiency could be based on a refusal to acknowledge and serve the public interest in accountable administration? For such arguments to be sustained, the alleged “inefficiencies” and costs of accountability itself would have to be demonstrated, not merely assumed.’ (Section 8.10).

The highlighting of these implications in such a way should be applauded.

Hurley’s conclusions are, essentially, that mistakes were made and that ‘the real harm came not from the original decision but from subsequent efforts to justify it and to minimise the damage’ (Section 9.1). From this stems Hurley’s overriding point - that the archival profession should (must?) learn from the Heiner affair and ensure that measures are put in place so that a similar event does not occur again.

The document largely confines itself to the incident and reactions (or lack of reactions) to it. The debate I suspect Hurley tried to provoke with this article is, hopefully, to be continued elsewhere. The fact that the Affair is still being discussed, dissected and defended some nine years after the events suggest that Hurley’s mission has at least been semi-successful. For

example, we have recently witnessed the publication of the ASA's position statement on the Affair and COFSTA's response to that statement (both dated 18 March 1999). In the general community too, the issue has been raised this year (Channel 9's "Sunday" program screened two in-depth stories dealing with events surrounding the affair).

While many broader professional issues are raised, they are not discussed in great depth in this document. Issues such as: how do archivists decide what is and what is not of historical interest (when do historians become involved in appraisal decisions for example); the relatively new archival dilemma of "history or evidence"; whether or not a continuum-based recordkeeping regime might avoid similar incidents in the future; and the role of ad hoc disposal arrangements in archival appraisal are outlined, but left to be thrashed out elsewhere.

Bernadette Bean

South Australian Department of Transport

## REPORTS

**Public Record Office Victoria**, *Victorian Electronic Records Strategy Final Report*, Public Record Office Victoria, Melbourne, 1998. 138pp ISBN 0-7311-5520-3. Free, \$9.50 postage and handling. Also online in a PDF version at <<http://home.vicnet.net.au/~provic/vers/>>.

I was excited when I finally got my hands on this report. I was involved in the early stages of the Victorian Electronic Records Strategy (VERS) and, to be honest, I was not totally convinced that the project team, comprising representatives of the Public Record Office Victoria (PROV), CSIRO and Ernst and Young, were pursuing the right path. Publication of the *Final Report* has presented me with an opportunity to examine the direction and outcomes of this well-funded and high-profile collaborative research project.

I first tried to download the report in portable document format (PDF) from the VERS project web site. This was not easy given its size so I ordered the hardcopy version instead. My first impression on skimming through it, was that it contained some very interesting information and appeared to be presented in an easily digestible form. These impressions proved to be mostly correct.

What grabbed me initially, was the use of colourful graphics to convey some of the basic concepts. In particular, I like the figures of VERS records

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complete with metadata in Appendix Four. Perhaps because I have spent considerable time reading about metadata it is nice to see what a record and its metadata might look like (conceptually, that is). Then I found the example electronic record. Here is a representation of what an electronic record, complete with layers of recordkeeping metadata, might actually look like on a computer screen. In the electronic recordkeeping training courses I have delivered for State Records New South Wales I have often been asked to show participants what an electronic record looks like. Not only does this simple example do this, it also demonstrates to me a number of elements of the VERS strategy: how electronic records can be preserved in multiple formats; how XML (eXtensible Markup Language) tags can be used to structure a record; what a digital signature looks like; how records can be preserved over time; and what it means for a record to be self-documenting and self-contained.

For those familiar with the work of David Bearman and the University of Pittsburgh project there is considerable reference to the Business Acceptable Communications (BAC) model and the concept of self-documenting metadata encapsulated objects. The influence of the Pittsburgh work is of course acknowledged in the report and is also listed as a source in the extensive bibliography. The strategy itself also represents an example of Bearman's 'standards tactic' for meeting recordkeeping requirements.

The substance of the Report ranges through the conceptual and theoretical basis of the project, outlines of the functions of capturing, archiving and retrieving electronic records, examination of the options for configuring system architectures, descriptions of the implementation of the prototype demonstrator systems and presentation of a technology cost analysis. In addition, a number of appendices cover models and descriptions of generic recordkeeping processes; requirements for records capture, archiving and retrieval systems; feedback provided at prototype demonstrations; technical explanations of the electronic record format and system design; and a glossary of terms used.

Not all of the Report is easy to digest. There are some technical references and diagrams which are not well explained for the technologically illiterate. For example, the models outlining the design of the prototype system require some knowledge of object oriented analysis techniques and awareness of computer network standards. Other parts, such as the process maps and process descriptions in Appendix One, require one's full concentration in order to comprehend them.

In general, the Report contains plenty of interesting, challenging and thought-provoking substance. Many readers will fall easily under its charm

and accept it as 'the solution'. Others will question its basic concepts and principles. For me, the report:

- illustrates that the Bearman/Pittsburgh metadata encapsulated object model can be implemented;
- presents a 'technical, standards-based solution' that could be adopted by an organisation as one of several strategies aimed at establishing effective electronic recordkeeping;
- demonstrates that electronic records management initiatives need to be flexible to suit various organisational, technological, policy and legal environments (the VERS strategy does not depend on central or distributed custody of records, nor does it depend on adoption of specific technical standards or storage media); and
- supports the adoption of minimum metadata standards for electronic recordkeeping (the report recognises a need for the VERS metadata to be compatible with emerging metadata standards such as the National Archives' Recordkeeping Metadata Standard for Commonwealth Agencies and the Australian Government Locator Service).

I am certain that the *Final Report* will not in fact be the last we hear of the Victorian Electronic Records Strategy. On the contrary, I expect that implementation of the long term electronic record format and electronic archiving system by the Victorian Government will further test, confirm and refine our understandings of the technical challenges facing electronic recordkeeping. I will look on with interest!

Tony Leviston

State Records, NSW

**Jeff Rothenberg**, *Avoiding Technological Quicksand: Finding a Viable Technical Foundation for Digital Preservation*, Council on Library and Information Resources, Washington DC, January 1998,  
<http://www.clir.org/pubs/reports/rothenberg/contents.html>  
accessed 16/4/99.

*Avoiding Technological Quicksand* is a report generated by the Council on Library and Information Resources (a collective body formed by many library and information provider organisations based in Washington, DC). As a report emanating primarily from the world of libraries, its focus is on digital collections rather than records, but, it may provide a useful conceptual approach for archives and archivists dealing with the problem of the preservation of digital information.

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The report is described as “the first in a series” (p. iv) and is intended to form one of a collection of papers all addressing the “preservation of digital information” (p. iv). The author, Jeff Rothenberg, is a senior research scientist from the RAND corporation.

The report opens with an admirable description of the problem with which it intends to deal. The “rush to digitize” (p. 1) documents, records, and cultural artifacts, as well as the increasing tendency to author information digitally, as part of a push to make information more accessible, has created a large body of digital information. However, the “longevity of digital content is problematic” (p. 1), the life-span of digital storage media is “surprisingly short” (p. 2), and the hardware and software systems used to access that content rapidly become obsolete. Digital information, unlike more traditional information, must be actively preserved and from comparatively early in its existence.

Rothenberg hones in very quickly on what it is about digital information that should be preserved. “The essence of preserving informational artifacts is the retention of their meaning.” (p. 3). By this Rothenberg somewhat ambitiously intends the “ability to recreate the original form and function of a document ... to establish its authenticity, validity, and evidential value and to allow the document’s users to understand how its creator and original viewers saw it, what they were (and were not) able to infer from it, what insights it may have conveyed to them, and what aesthetic value it may have had for them.” (p. 3). The parameters of any possible solution, as set by Rothenberg, are very wide indeed.

Rothenberg provides an excellent discussion of the various methods which have been advocated as a solution to the preservation of digital material and their inadequacies. A reliance on hard copy leads inevitably to loss of some information because it may destroy the structure and organisation of the digital information (pp. 9-10). Rothenberg also takes issue with the use of standards (as, for example, advocated by NARA) as a way of controlling and preserving digital information, pointing to the way the marketplace often undermines standards in order to gain market-share. Standards, while useful in the technology area, are often superseded as the IT industry undergoes frequent conceptual paradigm shifts (pp. 10-12). Another solution discussed is the reliance on what Rothenberg terms “computer museums” which depend on the preservation of old hardware and which clearly will not provide a long-term solution (pp. 12-13).

Lastly, Rothenberg considers the approach which many organisations are adopting (if only by default): migration. Rothenberg describes migration as “labor-intensive, time-consuming, expensive, error-prone, and fraught

with the danger of losing or corrupting information. Migration requires a unique new solution for each new format or paradigm and each type of document that is to be converted into that new form. Since every paradigm shift entails a new set of problems, there is not necessarily much to be learned from previous migration efforts, making each migration cycle just as difficult, expensive, and problematic as the last. Automatic conversion is rarely possible, and whether conversion is performed automatically, semi-automatically, or by hand, it is very likely to result in at least some loss or corruption, as documents are forced to fit into new forms.” (pp. 13-16)

As Rothenberg points out, “all of these approaches are short-sighted, labor-intensive, and ultimately incapable of preserving digital documents in their original forms” (p. 1).

What then is Rothenberg’s solution? Digital objects are software dependent and thus cannot, in any objective sense, be self-explanatory. The only way to preserve them, in Rothenberg’s opinion, is therefore to preserve the hardware and software which makes them readable (p. 9). Rothenberg advocates a two-step approach; the encapsulation of the digital document with its software environment, metadata about the document and specifications for the future emulation of the hardware used to run the software, and second, the building of hardware emulators in the future in order to access the encapsulated object (pp. 17-21). This approach would require the movement of objects from obsolete media to new media on a regular basis. However the existence of appropriate metadata would also allow the relatively easy management of these objects without actually needing to access them. Thus an emulator need only be created when the object must be read (pp. 20-21). Rothenberg acknowledges that there are certain requirements which must be in place for this solution to be achieved. There is a need for “generalizable techniques for specifying emulators that will run on unknown future computers” (p. 17). The metadata which will enable the management, discovery and ‘re-creation’ of the digital document needs to be captured in a human readable form and preserved (p. 17). Documents must be encapsulated with their metadata, software and emulator specifications “in ways that ensure their cohesion and prevent their corruption” (p. 17).

While, as Rothenberg himself acknowledges (p. 26), this approach requires much further research, it nonetheless represents a potential solution of some elegance. This approach would mean that electronic objects could be preserved and yet still maintain their original functionality (something which may be important in recordkeeping). Emulator specifications need only be created once for each future platform, and, as there are relatively few commercial platforms at any given time, this provides for a relatively efficient solution (pp. 23-24).

However, I do see some problems with this approach, especially from the perspective of record keeping and archiving. Simple emulation techniques, as the author demonstrates, are used quite frequently in the IT environment, however the very complex emulation advocated by Rothenberg is not achievable with the current technological tools. Maintaining complex software programs, many of which have been custom built or which have developed in an ad hoc manner, can be very difficult. Many digital objects have a complex relationship with their software or run across or through different interrelated software programs. This may be the case with applications which are delivered through a web browser. In the case of a database, for example, which is delivered to users via a corporate intranet, but maintained by developers through another application, which is the software to be preserved? What, in fact, is the *object*, in this case? Over the long term this may become dangerous because of the complexity of the object which will need to be preserved.

This approach is likely to prove expensive as a way of preserving and maintaining access to a large number of relatively trivial digital objects such as may need to be kept by an archival or record keeping organisation. And, while this approach may prove cost-effective for collections which contain important digital objects on which it is worthwhile to expend considerable resource and effort, careful consideration should be given before advocating such an approach for an entire digital collection.

Lastly, while the author acknowledges the role that non-technical issues (such as jurisdiction, lack of funding, and the need for policy requiring adherence to standards) play in both creating and solving the problem of the preservation of digital information (p. 2), he privileges a technical approach as providing the only way for a solution to be developed and accepted. As it was a reliance on, and privileging of, technology and the information technology industry which has, in some senses, created this problem, it seems a little naïve to use the same method to solve the problem.

Despite my criticisms, this report provides us with an exciting and new conceptual approach, and as such should be read with great attention by those with an interest in the preservation of digital material in the long term.

Justine Heazlewood

Public Record Office Victoria

## STANDARDS

**The National Archives of Australia**, *Recordkeeping Metadata Standard for Commonwealth Agencies*, version 1, National Archives of Australia, Canberra, May 1999. 136pp. ISBN 0 642 34407 8. Available at: <http://www.naa.gov.au/recordkeeping>

The Recordkeeping Metadata Standard for Commonwealth Agencies represents the completion of work by the National Archives of Australia on a first version of a metadata standard for Commonwealth agencies. This standard follows on from work previously carried out by the Archives and the Office of Government Online (OGO) and similar exercises performed by overseas archivists. The Standard also follows on logically from work done by the Archives and OGO in developing the Australian Government Locator Service (AGLS) metadata standard.

The National Archives has established the metadata elements which need to be captured by Commonwealth agencies in order to ensure the ongoing accessibility, identification, authenticity and description of electronic records. The standard contains a basic set of 20 metadata elements, of which eight constitute a core set, and 65 sub-elements. The standard contains a tabular representation of the metadata elements and it follows a common format. Each of the elements is defined briefly, an explanation of its purpose is provided, a statement follows of the obligation to use the element, the applicability of element is described, conditions of use are set out, the ability of the element to be repeated is described, any sub-elements are outlined and any relevant comments are included.

Within this framework the Standard attempts to provide Commonwealth agencies and private sector vendors with a recommended standard of the metadata elements that will need to be captured, stored and migrated to ensure the ongoing viability of Commonwealth electronic records. In its attempt to provide agencies and vendors with a clear picture of those elements considered vital to the preservation of electronic records the Standard succeeds admirably. Its attempt to provide descriptions of the elements, how they might be captured at the record creation stage and the various schemes that could be used as the basis of generating the metadata elements is similarly successful. The Standard provides a clear description of the linkages between the various elements and the manner in which one element may in turn trigger a number of other elements that will have to be captured.

The Standard compares favourably with other metadata initiatives that have been pursued out overseas. Not surprisingly the metadata elements

have a good deal of similarity with those specified within the Dublin Core. However the work done by the Archives in teasing out the linkages between the elements, their descriptions of what these elements are intended to do and the schema that may be used as a basis for selecting the metadata itself are all an improvement on the work done within the Dublin Core.

There are only two major faults that I could find with the Standard. The first of these relates to its use of the term recordkeeping throughout the document. As an archivist who has loosely followed recent debates on the use of this term I found its use a little perplexing. It was not clear to me whether it applied to records management systems only or whether it was intended that the elements could be applied to broader business applications. This lack of clarity may well cause difficulties with the implementation of the Standard within agencies if staff find themselves confusing record-keeping systems with records management systems. Secondly, unlike the AGLS Standard, this Standard is silent on the issue of how the metadata will be captured, beyond descriptions of how to capture metadata at the record creation stage through the use of pick lists. Nor does it provide guidance on the storage and on going access to the stored metadata. One of the strengths of the AGLS Standard is its discussion of capture, storage and access tools to enable the metadata to be used in the future. If the intention of the Standard is for the metadata elements to be incorporated into, captured, stored and accessed via functional abilities of application systems, then this needs to be stated more clearly.

With the exceptions above I am impressed by the Standard and will follow its development, and more importantly its application, very closely.

Matthew Gordon-Clark

State Records of South Australia

## MULTIMEDIA

**National Library of Australia and Australian National Maritime Museum, *Captain Cook's Journal 1768-71. Endeavour*, 1st edition, 1999. CD-ROM ISBN 0 642 10692 4 \$89.95**

The National Library of Australia, in conjunction with the Australian National Maritime Museum, has published on CD-ROM what the National Library regards as its most famous manuscript: the journal kept by Lieutenant James Cook while in command of HM Bark *Endeavour* during the years 1768-1771.

The Old World, long fascinated by the possibilities of a New World, eagerly awaited published accounts of voyages of discovery, and James Cook's voyage was one of the most famous. A continuous stream of published accounts of voyages reached an ever-widening readership in Europe, with constant demands for reprints and translations. In late 18th century Europe, details of Pacific islands, of the Americas, of Terra Australis and other distant worlds often stimulated serious reflection and comparison, pushing philosophers of the Enlightenment to challenge traditional European beliefs and assumptions.

As voyages of exploration did in the 1700s, so in the 1990s projects such as this one push the history of human communication into another dimension. Such projects help abolish distance through the transmission of digital information. The principle objective of this CD-ROM publication has been, says Nicki Mackay-Sim, Project Coordinator at the National Library (*National Library of Australia News*, June 1999), to provide access to one of the Library's greatest treasures via digital facsimile. This publication far exceeds that reasonably straightforward objective. This is a far more extensive project.

Cook's journal has been published here in facsimile and in transcription. The transcription is taken from J.C. Beaglehole's authoritative 1955 publication by the Hakluyt Society. Beaglehole's footnotes are also included augmented by information sourced from the journals of other members of the *Endeavour* expedition, or from other areas of research. The journal of Matthew Flinders and diary of Ludwig Leichhardt, for example, each contribute to solving a quandary noted in Cook's journal - how did the Aboriginal peoples eat the cycad seed without becoming ill while the Europeans were all stricken?

The transcription has been indexed using a scroll through back-of-book style index which has the advantage of showing the reader the searchable terms. There are, however, some inconsistencies in indexing. Readers searching for the term Australia, for example, are referred to New Holland in the index, but a search for Otaheite refers readers to Tahiti, the one moving from the contemporary to the historical, the other from the historical to the contemporary.

The journal is at the core of a wealth of contextual information leading up to the *Endeavour* voyage and beyond. The CD-ROM combines philosophical, biographical, scientific, social historical, naval and seafaring information. This is so comprehensive, multilayered and clearly written, utilising the full potential of multimedia technology including 3-D virtual tours, hundreds of still images, video clips and sound bites, that deciding where to begin is tantalising.

A section called 'The Voyage' highlights major events en route, complemented by a world map marking the course of the voyage month by month. 'Tour the *Endeavour*' offers a 3D virtual tour of highlighted sections of the *Endeavour* replica. Life on board an 18th century vessel is brought to life in sections called 'A typical day' outlining daily routines; 'Discipline' describing punishments including the use of the cat-of-nine tails; 'All hands on deck' detailing various roles and ranks of seamen and officers; and 'Daily essentials' which answers the one question almost all children ask about voyages at sea.

'The Mission' locates the *Endeavour* voyage within the context of early European voyages beginning with Magellan's circumnavigation of the world in 1519-1522. The scientific, and strategic and commercial motivations behind Cook's voyage, which include a transcription of Cook's secret instructions, demonstrate how voyages such as that of the *Endeavour* were influenced by the thinking of the day, as well as the part they played in creating the thinking of the day.

The accompanying 'Timeline', listing events from 1489-1784, contains one of the very few errors I noticed. In 1779 Cook's death is given as occurring on 14 February on the Friendly Islands (Hawaii) rather than the Sandwich Islands. The Friendly Islands was the name given by Cook to Tonga on his second Pacific voyage in 1773.

'Make a discovery' considers the complete range of cartographic, astronomical, zoological and botanical discoveries. It explains where and when astronomical observations and discoveries were made, and their significance; preservation techniques for plants and animals; naming methods for plants, animals, places and landforms. The development of each scientific discipline-botany, astronomy, zoology - is outlined, relating the sciences to the *Endeavour* voyage and the activities of Cook and his men, and Joseph Banks and his party.

'Meet the People' highlights contacts between the 'visitors' and the 'visited'. Interesting encounters, such as Banks' refusal to hand over a turtle to the local indigenous people, are looked at from the perspective of the Aborigines. The historical development of Batavia as a Dutch colony helps explain just why so many of the *Endeavour's* crew died as a result of their stay there.

Nicki Mackay-Sim has said that the *Endeavour* Project was sometimes nicknamed the 'End Never' Project, a reference to the three years needed for its completion. The result is a wonderful reference tool that is easy and enjoyable to use, moving easily from a broad historical perspective to individual definitions of highlighted terms. But can the chief objective have been about providing access, as Mackay-Sim has claimed? Sufficient access to the journal would have been achieved through the publication of the facsimile and transcription of the journal, with careful indexing.

Archivists facing mounting processing backlogs may see this publication less in terms of access and more as an indulgence for collecting institutions to devote so much time and attention to a single, albeit highly significant manuscript. In a similar period of time, a little over three years, the State Library of New South Wales provided digital access to over 10,000 manuscript pages, a far larger body of material, through the Sir Joseph Banks Electronic Archive. This included the two volume journal which Joseph Banks had kept during the *Endeavour* voyage. With this project, an early decision was made to avoid a multi-media style product, despite the perceived potential commercial appeal, on the grounds of high cost and greater demands on time. The focus was providing access to the documents.

That aside, the National Library and the National Maritime Museum have produced a beautiful and useful version of Cook's *Endeavour* journal. With simple, direct text this publication not only opens up a great voyage to a new readership, but also offers an historical context for the voyage, and a context for the extension of European curiosity into the Pacific - surely valid objectives for a collaborative project by leading national institutions.

Though not the only published version of Cook's *Endeavour* journal in transcription, at \$89.95 this CD-ROM is cheaper and easier to get hold of than Beaglehole's 1955 publication. Beautifully packaged, and including so much more information, plus illustrations, sound, and the facsimile, this publication will be a worthwhile acquisition for many libraries, researchers and enthusiasts.

Louise Anemaat

Mitchell Library

## CONFERENCES AND SEMINARS

**Archives at Risk: Accountability, Vulnerability and Credibility, Australian Society of Archivists, Inc., 1999 Conference and Annual General Meeting held at the Sheraton Hotel, Brisbane July 1999.**

Thirty-two speakers and 245 participants attended this year's ASA Conference hosted by the Queensland Branch of the ASA in sunny Brisbane, an appropriate setting, as it turned out, for the discussion of the conference themes of the accountability, vulnerability and credibility of archives and archivists. Rather than summarise each session, this review will look at how the conference themes were developed in the papers and in the discussion that followed.

Controversy was to characterise many of the conference sessions. This became evident in the AGM where two topics dominated discussion. The motion to remove the ASA's provisional recognition of archives courses, to which Paul Brunton spoke with some passion, was defeated by a large majority which supported provisional accreditation as a means of affording universities an opportunity to gain full recognition by rectifying problems identified by the accreditation panel. Suspension of standing orders to discuss the ASA's position on the future of the ACA also provoked heated debate which heralded realignment within the Australian archives community towards structures more inclusive of related professions.

The accountability of governments, the archival profession and individual archivists emerged as the dominant conference theme which was given an international perspective by inclusion of speakers from Commonwealth countries and Cambodia. The keynote speaker, John McDonald of the Archives Development and Preservation Branch of the National Archives of Canada, spoke of his country's development of a comprehensive government-wide standards and guidelines for the management of electronic records. He went on to make the crucial link between an accountability framework based on accepted societal values and a democratic system in which records are the primary means used by governments to hold themselves accountable. The address raised the question of the accountability of archivists to the profession, an issue which the speakers would return time and time again, most notably in Sue McKemmish and Glenda Acland's, "Archivist's at Risk: Accountability and the Profession".

Paul Twomey, CEO, National Office for the Information Economy and John McDonald both urged the profession, as a cultural imperative, to participate in a national effort and gain an international perspective on strategies to gain more efficient electronic access to records and information. They identified the need to understand and adapt to a broader environment as the current key issues for the recordkeeping profession. John Roberts gave an account of the effect of New Zealand's policies of public sector de-regulation on the successful adoption of the information economy in that country. He pointed to the difficulties of instituting a whole-of-government approach in a climate of devolved responsibilities.

Anne-Marie Schwirtlich provided a timely comment on the extent and effectiveness of Australian archival legislation in ensuring accountability and ensuring public rights, examined its impact on recordkeepers' professional conduct, and invited us to search for a systematic means of evaluating legislation and its application in the various jurisdictions. She identified the limiting of the application of legislation, the exemption of certain records and the lack of coverage outside the public sector as challenges to the

effective-ness of the legislation. The two case studies which followed Anne-Marie's paper supported her conclusions. Tony Newton and Catherine Robinson spoke about the changes wrought by the State Records Act 1998 on State Records Authority of NSW. They discussed the soon-to-be-faced problems of dealing with non-compliant agencies, the potential conflict of interest in being both a standard setter and regulator, and the challenges of bringing regions into the Authority's information and resource loops. Jenny Edgecombe presented a range of reflections coming out of her experiences of the West Australia Branch of the ASA campaign to ensure that in that State the archives authority would be genuinely independent.

The Education for the Profession session dealt with both the current vulnerability of postgraduate recordkeeping education and the credibility of archivists from the perspective of those outside the profession. Sigrid McCausland's paper, "Accreditation: Purpose, Process and Value" spoke of the "creative tension" between the Society and educators, and demonstrated how the process has been impacted upon by the development of standards and how accreditation is interwoven with the objectives and endeavours of the professional collective. Sigrid also pointed to the uncertain future of post-graduate recordkeeping courses and asked us to consider who our future colleagues may be given the full fees currently being charged by universities. The role of the ASA in monitoring recordkeeping education remains uncertain.

Despite the fact that the profile of the profession and educational issues represent common threads for the ASA historically, I do not believe that the image of the profession has been as central an issue for an ASA conference since the 1995 Conference, "Image and the Future of the Profession". In Canberra we were urged to cast off the esoteric label and establish the profession as a visible stakeholder in the world of record-keeping and information management. In Brisbane our professional identity was bound up with the need to institute accountable recordkeeping regimes and with them accountable government. To assist us in taking our rightful place at the table, Ann Pederson's analysis of a study of personality types amongst the ASA membership showed that as a group archivists exhibited a preponderance of attributes associated with preserving the status quo rather than openly pursuing the aims of the profession. The mirth generated by the "Guardian" label, which was to sustain us throughout the rest of the conference and beyond, did not obscure the implications of these findings for the strategic relationships archivists need to make with management and colleagues in related fields. Following on from Loris Williams' paper, "Accessing Queensland government records - my experience", a study of the socio-economic and ethnic backgrounds of members of our profession would be equally enlightening.

Economic rationalism came out as the major cause of vulnerability to archives nationally and internationally. Don Boadle, Peter Arfanis and Pat Jackson identified this ideology as having significant impact on archives in third world contexts, while Sigrid McCausland presented an overview of its threat to Australian archives. The strategies she proposes to defend vulnerable archives and convince private and public sector institutions to continue to preserve corporate memory, together with the solutions offered by Christine Bapty from the UWA experience provide useful starting points for action in cases such as the present jeopardy in which many university archives find themselves.

A highlight of the conference was the session on post-Fitzgerald Queensland. Peter Botsman's descriptions of Queensland "before and after" political cultures, though heartfelt, obscured his analysis of the extent to which Fitzgerald got it right about a State in which the Heiner Affair occurred post-Fitzgerald and where the day after the conference ended yet another government minister stood down over conflict of interest allegations. Noel Preston, QUT Associate Professor of Applied Ethics and former consultant to the Queensland Electoral and Administrative Review Commission (EARC) spoke of initiatives to implement ethical standards in the Queensland public sector and parliament and the current government's legislation for an Integrity Commissioner. Both session speakers, however, pointed to the lack of state recordkeeping legislation as recommended by the EARC and saw the destruction of the Heiner records as an incident to learn from rather than to pursue. This session engendered some robust discussion from the floor, most notably from Kevin Lindberg, a key player in the Heiner Affair. Kevin challenged the profession to enhance its credibility by continuing to monitor developments in the Heiner Affair and to work at establishing a culture in which politically motivated ad hoc destruction of state records cannot occur.

Shauna Hicks as Convenor and the Conference Committee are to be congratulated on running a well-organised event. The weather in Brisbane at the time certainly lived up to the tourism promotion depicted on the Conference Program. Brick bats however to the Sheraton's inability to provide adequate lighting and sound insulation in the venues. The challenge of deciding which of the concurrent sessions to attend was nothing compared to that of circulating while balancing food, drink and a briefcase in the crowded corridor which was our luncheon area.

Olga Doubrovskaya

University of New England

**Intranets - Problems or Opportunities for Recordkeeping, Records Management Association of Australia, ACT Branch Seminar, 10 - 11 March 1999, Parliament House Theatre, Canberra.**

The 1999 Records Management Association of Australia, ACT Branch Seminar, 'Intranets - Problems or Opportunities for Recordkeeping', was 'designed to define intranets and extranets in terms of their recordkeeping potential, to demonstrate their effects on operational and human outputs, and to expand on the opportunities they give to capture and share knowledge in the business environment'. Nine speakers over two days looked at the issues associated with intranets and recordkeeping from many different angles.

George Nichols, Director-General of the National Archives of Australia spoke of electronic records having forced the partnership between records management and archives and the control of this format being essential for both the corporate and national memory. The development of Australian Records Management Standard (AS 4390) has delivered a basis for an agreed approach throughout the country. While technological solutions do exist, the issues to do with recordkeeping and intranets are still a black hole in our vision from which we must not be complacent or in awe.

Rick Barry spoke on *Factoring Web Technologies into the Knowledge Management Equation...for the Record*. In discussing the management of intranets he made the point that the webmaster who is technology based needs to be joined by both knowledge and records specialists. In relation to Y2K, Rick noted that there is a need for records managers to show due diligence to reduce potential liability claims. He also discussed Enterprise Resource Planning Systems, which will bring together the integration of related but disparate systems coupled with mass storage technologies. Another innovation he discussed was 'Thin-Client' technology where the software on a network will be resident on servers rather than individual PCs, making it easier to have good control over information.

Conni Christensen in her paper *The Intranet/Recordkeeping Technical Interface* looked at recordkeeping requirements in the management of 'net' records, discussing version and edit control and the inclusion of authorisation of changes and electronic signatures. She also identified the need to build strategic alliances with content, administrative and IT managers.

Adrian Cunningham in *Capturing Metadata for Intellectual Control of Records in an Intranet Environment*, discussed the many issues involved with metadata and recordkeeping and the various projects, including the Australian Government Locator Service and the Monash SPIRT Project, underway across the country. He also drew attention to the differing requirements of recordkeeping metadata as opposed to resource discovery metadata.

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Anthony Willis from Dunhill Madden Butler spoke on *Intranets and the Law*. He outlined the major legislation that is relevant to the management of Intranets where, in short, all laws that apply in the paper world apply in the electronic world. As a final point he suggested that all employees should be required to sign an electronic access agreement, which would set out their use of PCs, email and the internet and would be included in their terms and conditions of employment.

Joy Siller discussed *The User, Intranet and Recordkeeping Relationship* and, in particular, the differing needs of the intranet and internet users. She noted the difference in record seeking needs as opposed to information seeking needs and the effects that this has on the use of the network, which needs to be designed to meet user expectations and requirements.

Dagmar Parer's paper was presented by Brenda McConchie and was entitled *Integrating Information Resources and Services through Intranets*. This paper regarded the intranet as the internal gateway to the organisation's knowledge capital and looked at the issues involved in integrating both information resources and services. The paper noted the need for metadata to be persistently linked to the captured documents.

Bob Morton from the Department of Immigration and Multicultural Affairs spoke on *Taking Real Control over Email* and discussed the current upgrade of the email system for his Department. He viewed this as taking records management out of the basement and into the corporate agenda with a role upfront in the organisation. He spoke on the training programs for the new records management infrastructure with the outcome being a changed records management focus from 'doing' to 'monitoring', pushing functions out to the desktop.

The final speaker was Tony Miller from PricewaterhouseCoopers who spoke on *Intranets - Sharing Knowledge*. He acknowledged that the people resources of an organisation needed to be valued as assets of that organisation and he also described the knowledge management framework and its application in organisations to optimise the availability of the corporate knowledge resource.

The seminar achieved its aims at an extremely high level. The papers have now been published and make compelling reading.

David Wardle

ACT Government

## GUIDES

**D. Terwiel, S.P. Ville and G.A. Fleming**, *Australian Business Records: An Archival Guide*, Department of Economic History, Australian National University, Canberra, 1999. 72 pp. ISBN 07315 2900 6. (Available free of charge from the Faculty of Economics and Commerce, Australian National University, Canberra, ACT, 0200)

Thank goodness for historians. In this slim publication economic historians Terwiel, Ville and Fleming have provided us with a neat survey of the location and availability of a selection of Australian business records of the twentieth century. Admittedly, the guide has some limitations. Its coverage is confined to a selection of companies, the entries can be variable, and some of the location information could be better detailed. But it is an excellent starting point.

The authors make a plea for more comparative and critical analysis of the performance of Australian business enterprises. Refreshingly, they mention the vital importance of research using surviving archival records. With this guide they aim to stimulate such work.

The guide covers extant records for companies that have been defined as corporate leaders in the twentieth century. It relies on work by D. Merrett and S. Ville identifying the top 100 non-financial enterprises measured by assets in the years 1910, 1930, 1952 and 1964. The resulting list of companies is used as a basis for gathering information on the existence and location of records. The Ville and Merrett analysis resulted in a listing of 262 companies. This list is reproduced in the guide with an indication of whether or not records were located. The companies listed represent a broad range of commercial activity including: retail and grocery, textile manufacturing, agricultural, mining and refining, building materials, motor vehicle production, petrochemical and pharmaceutical, brewing, newspapers, paper manufacturing, transport and the entertainment industry. Of the 262 listed, the guide locates and describes records for 144 firms. The compilers of the guide found that "the smaller and failed companies are least well represented by archive records except where they are acquired by a larger firm" (p. 6).

Entries in the guide appear alphabetically according to the name of the company. Each entry gives company name, archive name, date range, quantity, access conditions and records (being a brief description or overview of holdings). In some cases, related records are mentioned whether they are held in the same location or in a different archives. The descriptions of records are often tantalisingly brief. On some occasions, they are simply highlights. The authors note that there is considerable variation in size and quality of the surviving accumulations of archival

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records. Descriptions can refer to a two-page statement of assets and liabilities or to an extensive collection of several hundred metres.

Measurements of quantity can be erratic, variously given in shelf metres, cartons, volumes, boxes, feet and, often, 'not known'. Access conditions are usually only given as restricted, unrestricted or not known. In most cases the researcher will need to make contact with the archives concerned to determine whether, how and when the records might be used. A list of archives' addresses is given at the end of the publication to facilitate contact between researchers and holders of the records. Unfortunately, no general contact names, phone numbers, fax numbers or e-mail addresses are included, so the researcher will need to refer to something like the *Directory of Archives in Australia* for this supporting information. Sometimes locations appear mysterious. The 'Historical Records Office, NLA', for instance, refers to the Historic Records Register, a searchable database kept at the National Library of Australia.

The Register of Australian Archives and Manuscripts (RAAM) can give us information on business archives held by those organisations that contribute to the database. But a small subject guide like this one goes much further in tracing records still held by the creator or located in private hands. It will be of value to historians as a starting point for research and to archivists in describing where records of important companies are held. This small volume also presents a challenge to build on the foundation of this work.

Kathryn Dan

National Archives of Australia