'female art,' is made clear. There is a nice section, though, on women collectors, many encouraged and helped by Frederic Mueller who saw the potential of an intelligent and possibly under-employed workforce spread across the continent and just awaiting his (benign) exploitation.

The text forms a useful introduction to the botanical history of Australia, and includes some introduction to ideas of botanical classification and taxonomy. All the earliest formal collections were, of course, done by Europeans, predominantly men from the UK, and the material taken to English institutions. It is almost moving to look at the first plate in the book of a native violet, collected by Joseph Banks and Daniel Solander at Botany Bay in 1770. This specimen spent 100 years in the British Museum before being sent back to the NSW collection and reclassified as a new species in 2003. The delicate thing seems too fragile to support this weight of scientific, political, and practical difficulties so summarized.

Other evocative moments of history are captured in situations such as the specimens collected in Palestine and nearby areas by soldiers during the First World War, or in the interplay between the amateur field collectors and the professional scientist who might have corresponded for decades but meet in person only in old age.

The period of gentlemen collectors and scientific cabinets arrived at much the right time to help support the exploration of Australia. Many of the specimens in the herbarium were part of collections being made for sale to the armchair collectors of Europe. Although not seen by the buyers as philanthropic support, there is no doubt that this eagerness to buy interesting specimens made possible many expeditions and hard collecting work that would not otherwise have occurred. Conscientious collectors made some, often the best, of their work available to public institutions.

The index is a good professional job, if a little light. It is a pity that in a volume that seems to acknowledge everyone who has touched the production, there is no mention of who did the index. How similar this seems to the occasions described in this book where the valuable work of the collector in the field disappears behind the more high-profile work of the scientist. Collectors can at least hope that sometimes their names will reappear in scientific terminology!

Because the emphasis in this publication is on the beauty of the design, a couple of decisions have been made that may irritate some readers. The illustration pages are not numbered, so it has not been possible to index the illustrations or cross-reference to them from the botanical notes. Cross-referencing is achieved by thumbnails of the illustrations in the botanical notes section. Also there is no numerical referencing from the text to the useful notes section, which might therefore be missed by some readers.

In summary, however, this is a very beautiful book which will be enjoyed by people coming from many varied backgrounds.

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Indexing multimedia and creative works: the problems of meaning and interpretation. Pauline Rafferty and Rob Hidderley. Aldershot: Ashgate, 2005. 224 pp, 23.4 cm. B&w illus., index. ISBN: 0-7456-3254-7 (hbk): £35.00.

This book on the problems of designing information retrieval systems for multimedia materials is aimed at third year and post-graduate students of information science. I am not one of those, and indeed I think it says a lot for this book that I read it almost from cover to cover (I skipped a few examples of cataloguing systems) on several bus journeys despite the unfamiliarity of much of the material.

The authors address issues of indexing and information retrieval, taking as their starting point the assertion that if systems designed to facilitate these processes are to work effectively, the creators and the users of the systems must share a common language and interpretation. This can be more complex for nonverbal media. This point is well demonstrated by a number of examples of different types of audio and visual media. The authors argue that currently available approaches to multimedia indexing fail to 'engage with questions about the meaning(s) of documents' (p. xiii). They suggest that it is the interpretation of a document that should lie at the heart of an indexing and retrieval system, rather than an attempt at objective description.

The authors provide a useful introduction to information retrieval and to multimedia information retrieval. They then move on to a discussion of semiotics, which again starts from a useful introductory base and gives plenty of scope for students wishing to pursue the subject further. They discuss a range of multimedia information retrieval tools and use this to demonstrate the the gap they believe exists between narrow descriptions based on controlled vocabularies and the far richer interpretation that semiotics can provide.

The authors review and critique a number of cataloguing systems. Here I must admit I parted company with them for a while since as a social scientist rather than an information scientist, I do not have the background necessary to compare these, and found 40-plus pages of examples hard going. Some explanation of the abbreviations and acronyms would have helped, as there were a number that I could not work out. However, this would not be a problem for the intended readership.

Having presented their review they then present a brief account of Eakins' and Graham's system of content-based image retrieval (CBIR). This consists almost entirely of extracts from a report by Eakins and Taylor, and the authors do not really engage with this system except to use it as a lead-in to present their own research into 'democratic indexing', which they suggest as an alternative approach focused on user interpretation. Sadly this is a very short part of the text – just 11 pages. I would have liked to read more on this. From the description given, democratic indexing adopts an approach similar to the data-mining strategies used by a number of retail companies to develop user profiles. The approach is obviously in the early stages of development, and the authors are aware that cost elements may have to be balanced against the richness of information that the approach can achieve.

Overall I found this an interesting and very readable book. There is a lot to interest book indexers as well as information scientists. The text is pitched appropriately for final year undergraduate and postgraduate students, although there are some irritating errors in the text that might have been picked up at copy-editing or proofreading stages. I found the index to be rather thin – running to six pages for 200 pages of text – and there are several instances where subheadings would be helpful.

My major quibble is that a book that is only available in hardback at a cost of £35.00 is going to be outside the price range of its target audience. For a student to spend that amount of money on a book it has to be absolutely indispensable. I imagine this text will find its way into a number of university libraries, but I doubt that many students will buy personal copies.

Hilary Faulkner, freelance indexer, PhD student and member of SI

Inside indexing: the decision-making process. Sherry L. Smith and Kari Kells. Bend, Oregon: Northwest Indexing Press, 2005. vii, 189 pp. Bibliography, index. ISBN: 0-9770934-0-9 (pbk): $34.95.

The authors state this is not meant to be a 'definitive treatise . . . on the subject of how to index correctly,' but rather a work to promote and encourage discussion on the indexing process. Since last year we saw the publication of *Facing the text: content and structure in book indexing* by Do Mi Stauber, which was inspired by close

personal observations of her own indexing process, I was curious to see how this book compared. The Stauber book takes personal observations one step further, provides guidelines for developing decisions, and also attempts to put these guidelines within the arena of accepted practice. These two books describe the thinking and decision-making process in writing back-of-the-book indexes from two entirely different, but complementary, perspectives.

Smith and Kells have identified seven primary principles of indexing: audience, analysis, metatopic, gathering, access routes, phrasing, and consistency. It is quite fascinating to follow and compare chapter-by-chapter variations in the indexing process from one indexer to another in each of these topic areas. I think you will find yourself strongly agreeing or disagreeing with the approaches taken or the arguments supporting the choices given. For instance, in the chapter on Audience, I was amused by the use of the quote from Wellisch on what he refers to as 'request-oriented indexing' as opposed to assignment, entity-oriented, or mission-oriented indexing in his discussion of 'Types of indexing' as a support for considering the audience in the indexing process. If you read on, Wellisch states that this is 'a highly speculative approach, seeing that indexers cannot reasonably be expected to act as prophets or psychoanalysts.' Both Kells and Smith give very different perspectives on considering the audience when creating the index.

Smith's discussion of her approach to the analysis of the use of geography detail in the chapter on Analysis is truly outstanding. It is easy to follow her logical thought processes and see that she is developing a parallel structure to the phrasing for this topic area, which will serve the reader well in intuitively finding information. This same logical, common-sense approach could be applied to other topic areas where you might be faced with treating multi-level jurisdictional places or entities. She is really grappling with a very theoretical concept in a very applied format. She takes us through these steps again with a discussion of the use of the term 'land.' She expresses herself succinctly and in very logical, step-by-step terms. I was also quite taken with her 'enlightened procrastination approach,' since it is a technique that I often use when solving problems with index structure, or how to phrase an entry.

The authors also use a question and answer format, where each indexer queries the other on the decisions she has made. A lot can be learnt from this interchange of ideas and from reading the supporting arguments for the decisions. By reading and studying the examples and the Q&A sections, the student of indexing can truly begin to understand the indexing process.

The authors suggest that readers obtain a copy of the book they indexed, *Better not bigger* by Eben Fodor, and also refer readers to their website for copies of the complete indexes, which unfortunately they did not include in the printed volume. However, they have excerpted relevant examples from their indexes to highlight their discussions, and these appear in well-placed sidebars adjacent to the discussions. You do not need the other sources to understand fully the concepts being presented.

In writing this book review, I frequently had to remind myself that the purpose of this review is not to agree or disagree with the points taken or practices discussed in this book, but rather to give you some insight into an evaluation of its usefulness in learning how to index or in building skills in indexing. I do feel the need to caution the student new to indexing to remember that these are two indexers' views on indexing to help you understand the indexing process. But do keep in mind that some of the ideas expressed will most certainly be highly controversial, and need to be read in the context of a broader study of indexing theory and practice.

I think experienced indexers will find the final chapter of particular interest. In this chapter you are challenged to compare one of your own indexes against each of the seven basic principles. This is done using a series of questions prompting you to evaluate your own indexing practices and making suggestions for considering another point of view. For instance when gathering entries to avoid scattering a concept you might be asked, 'If you have a cluster of entries that begin with the same keyword, what would happen to the level of detail in your subentries if you turn all of the main headings into one?' I can see instructors using these techniques in skill-building workshops for indexers.

Martha Osgood has prepared the index. I searched for several terms and found everything without any difficulty. I especially liked the creative way that she handled the indexing of the examples. My only quibble might be with the wording of some of the subentries.

I recently met a woman who had taken the US Department of Agriculture Basic Indexing Course, had joined the American Society of Indexers, had attended an ASI conference and several meetings before deciding that she would never be able to make any money as an indexer. The reason she gave was that it was too complex a process and that there were just too many decisions to be made when writing an index, and she spent too much time creating her indexes for it to be profitable. I think this book might have helped her to understand this sooner. For those who decide to become indexers, I think you will find this book will help you in making those complex decisions.

This book is not going to be on every indexer's desk as a ready reference such as Mulvany's *Indexing books* or Wellisch's *Indexing from A to Z,* but it will be a valuable addition to the field of indexing and would be excellent suggested reading for those who are teaching basic introductory classes in indexing. I would also recommend this to experienced indexers as a way to analyze your work and see if you might improve the quality of your indexing in these seven primary areas of indexing, after studying these examples and reflecting on the queries posed in the final chapter.

Victoria Agee, freelance indexer/librarian and member of ASI

Know it all, find it fast: an A–Z source guide for the enquiry desk. 2nd edn. Bob Duckett, Peter Walker, Christinea Donnelly. London: Facet Publishing, 2004. xiii, 368pp. ISBN: 1-85604-534-X (pbk): £26.95.

It is pleasant to start a review with good news. The first edition of *Know it all* . . . was (deliberately) published without an index, but the second edition has been provided with one as a result of comments received. In *Refer*, vol. 21, no. 1, Winter 2005 (pp.12–14), one of the compilers records that it was originally decided not to have an index because the contents of the book were arranged alphabetically with 'any necessary cross-references' inserted in the A–Z sequence, and the 'cross-references were repeated in the contents pages'. The introduction to this second edition states that 'our experiment of relying exclusively on "see also" references has been abandoned in favour of providing an index as well – librarians seem to want an index!' The purpose of a contents page is different from that of an index, so that is no surprise.

The book's admirable aim is to act as a first point of reference in libraries, information units and specialist departments, where 'the majority of staff on enquiry desks do not have formal qualifications and have not been on courses' and cannot be familiar with the subject of every enquiry. *Know it all* . . . points to where the answer may be found or the search for information started, and so is well worthy of a place among the enquiry desk collection.

After the first General Sources section, broad subject sections proceed alphabetically, from Abbreviations & Acronyms to Writers & Writing, with cross-references from one section to another, e.g. 'Inventions & Patents *see also* Copyright'. Each section has the same arrangement, using standard headings as relevant to the subject:

Typical questions (the kind that people really ask), e.g. 'How much oil is produced worldwide?', 'Where can I locate a picture of