vary widely according to their size, the monetary value of their collections, and the physical location of the institution, particularly if it forms a part of a larger institution such as an archives within a university library. This article stresses the vital importance of properly trained and motivated staff in the prevention and detection of theft and vandalism.

The editor and his fellow authors provide a good overview of the issues that have to be taken into account when dealing with the real world of archival theft and security and the strategies for limiting the damage to the greatest extent possible. I can recommend this book as a good introduction to the issues and as a guide to institutions which are looking for a starting point in developing their own policies and procedures in this area.

Wayne Crockett Archives of Ontario

Solid, Safe, Secure: Building Archives Repositories in Australia. TED LING. Canberra, Australia: National Archives of Australia, 1998. 144 p. ISBN 0 642 34403 5.

Our Australian colleagues have constructed and managed a number of special purpose archival repositories over the past thirty years. Ted Ling, and the National Archives of Australia (NAA), are to be congratulated and thanked for documenting what they have learned. They fill a large and important gap in our professional literature. While few archivists have lived the building experience, fewer still have documented the process, sharing mistakes made and lessons learned.

This is an easily understood "how to" book communicating the nuts and bolts of building (or renovating) archival facilities. The author writes with clarity in a systematic and practical manner. Summary tables, key points or questions, and case studies are given prominence. The book design facilitates quick reference to key information and issues through its table of contents, index, and concluding chapter summaries. In addition to informative, detailed content, page turning frequently rewards the reader with interesting drawings and photographs, although larger photographs with less cropping would have given a better sense of building design relative to sites. Chapter end notes are provided (though a slightly larger typeface would have made for easier reading) and the book has a good bibliography.

The book has nine chapters. "Archives Buildings – Past and Present" reviews the literature and past experience. "The Site and the Building" discusses the evolution of NAA thinking regarding site selection and the fundamentals of building design and construction. "Inside the Building" discusses environmental requirements, the lack of agreement on standards, and electri-

cal-mechanical requirements and systems. Important pearls of wisdom are sprinkled throughout. One example is the suggestion to use data loggers to develop institutional data on microclimate conditions within storage containers in addition to remote sensing devices and localized recorders. "A Myriad of Uses" covers specialized storage requirements, and areas such as the conservation lab, darkroom, fumigation facilities, offices, and public areas. However, the NAA's preferred shelving system, favoured by many archives, is an inefficient use of real estate.

"Building the Building" describes the process of preparing for and working with architects and engineers but says nothing about designing an archives to speak to the community. The relevance of some of this chapter is limited by national differences in building practices. In some countries, the architect is responsible for successful construction from design, to tender drawings and specifications, to working drawings and construction management. In others, the contractor takes the architect's design and produces working drawings as well as shop drawings, and completes construction. In the latter approach, the original design may be muted, or lower quality components included in the building. Some projects tender significant parts of the project - structural, electrical, mechanical - through a bid depository system which may force the general contractor into a working relationship with an unwelcome low bidder. This chapter would have been more useful outside of Australia if risks and limitations related to different approaches to design and construction had been discussed. The book would have also benefited from a discussion of multiyear funding and the relationship between capital and operating budgets before, during, and after construction.

"Caring for the Building" discusses building maintenance, pest management, and the basics of disaster preparedness. "Building in the Tropics" explores the unique requirements of tropical facilities including designing for excessive rainfall, cyclones, and storms. "The Lone Archivist" provides a summary of the content of the previous chapters with a quick reference guide to more detailed reading. The "Summary," finally, provides, in bullet form, all of the key information by major topic.

Those using this work as a jumping off point for their facility project should read it with a critical eye. For example, an overly small section on designing for the needs of the disabled covers the obvious points but fails to sensitize the novice reader to the many competing needs arising from various disabilities. "It may be necessary to provide a rest room which is fitted out specifically for use by disabled people" (p. 80) is not an appropriate standard of design for a public institution at the end of the twentieth century.

However much I value the book, there are important limitations. There is no sense of an archival aesthetic. Australian archives, however solid, safe, and secure, do not attempt to make an architectural statement to their nation about their significance and purpose. They are merely warehouses with a special envi-

ronment and some public spaces, situated in industrial parks not prone to flooding, within reasonable distance to the urban core, and upwind from polluters. The NAA should at least aspire to the quality of architecture of the Sydney Opera House. Archives can and should be public amenities, places to which the non-researching public are drawn as an important destination, as a building – not just as a documents warehouse for records and researchers. For millions of dollars, Australian citizens should get more than "solid, safe, secure."

Accumulated wisdom can stifle innovation. Each new building provides the opportunity to experiment, to advance experience and knowledge, not just to repeat the pattern. For example, the book asserts that "loading docks should be designed to allow large vehicles to fit inside them and thus protect records" (p. 40). Yet the frozen food industry moves massive quantities of products around the world without loading or unloading within refrigerated loading docks. They use cushion pads on exterior walls to seal the trailer or container opening to the building wall. Why waste interior space to occasionally ship or receive goods in large vehicles?

In addition, storage does not require acres of compact shelving and real estate. Alternatives such as high rack systems should not be quickly dismissed as susceptible to fire spread (p. 71). They, too, conform to the fire code (NFPA). High density coverage and head volume, release mechanisms, and smoke detection, with appropriate shelving configurations, provide eight-high mobile units with equivalent fire suppression capability in a smaller area. They may also reduce building costs. If the NAA were to consider higher density alternatives in a smaller storage foot print, they might be able to build in the urban core, achieving visibility as an important cultural amenity.

As well, those designing archives could benefit from a better knowledge of the logistics sector when considering ways to reduce building size, costs, and staff requirements while improving service and visibility. Relying heavily on existing archival sources and standard practices limits vision and innovation.

There are not many comprehensive books on building and operating archives. All archivists need to understand why their buildings are different and expensive to build and operate. This book is worth owning and reading, albeit with a critical eye. There is more to an archives than "solid, safe, secure." For anyone relying on this book to build or renovate an archives facility, I offer this challenge as an alternative to the opening quotation on the title page: "The person who is competent to plan an archives is one who builds on research and experience to create a beautiful and functional cultural facility within a budget that is probably too small."

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