

well as issues of information malpractice. These are all areas in which librarians, ideally, ought to be well versed. In the best of all possible worlds, library schools would teach these subjects and we would turn to such volumes as *The Law of Libraries and Archives* as a refresher rather than our primary resource. Since, however, they generally don't, reading a book like this should be mandatory for anyone who works in a library and who wishes to avoid the legal catastrophes that may strike a library and its well-meaning staff, simply because we didn't know any better.

A final comment on Bryan Carson, the author of *The Law of Libraries and Archives*: he is, not surprisingly, a lawyer as well as a librarian. As a member of both the Ohio and Kentucky bars, he has written extensively on the law as it pertains to libraries. His subject matter, however, is American law, which doesn't always apply to institutions located outside of the United States. That said, the law in most Commonwealth countries is often similar enough that non-American libraries really ought to obtain a copy. As the old adage goes, "ignorance of the law is no excuse"; that saying surely applies doubly to a profession that claims all knowledge for its stock-in-trade. —Nancy McCormack, Queen's University, Kingston, Ontario.

Huvila, Isto. *The Ecology of Information Work: A Case Study of Bridging Archaeological Work and Virtual Reality Based Knowledge Organization.* Åbo, Finland: Åbo Akademi University Press, 2006. 385p. alk. paper (ISBN: 9517653360).

As both an archaeologist and a librarian, I was very excited when asked to consider writing a review of this book; detailed analyses of information behaviors among archaeologists are few and far between. The inclusion of virtual realities in the title also attracted my attention. However, I soon discovered that writing a useful review of this book would be a significant challenge. The first sign of difficulty arose when I learned from the preface that this study originated as Huvila's 2006 doctoral

dissertation at Åbo Akademi University in Finland. Dissertations are seldom, if ever, appropriate for a broader audience without significant reworking. Unfortunately, it appears that this book is merely a repackaging of the dissertation in its original form; there is no indication that it was revised with a broader audience in mind. Readers are forced to deal with the typical "tell them what you're going to tell them, then tell them, and then tell them what you told them" approach that might turn off even the most sophisticated reader.

This difficulty is compounded by significant semantic and syntactic problems on nearly every page. The language is often only superficially recognizable as English. These problems include awkward sentence structure; inappropriate use of commas; lack of agreement between subject and object; excessive use of the direct article; and "creative" word use. At first, I suspected that these problems might be a result of translation from Finnish to English. However, a search of the Åbo Akademi library's online catalog indicates that English was the original language of this dissertation. Apparently, the author and publisher either chose not to have the manuscript reviewed by an English-speaking editor, or the English assistance they received was less than adequate. In its present form, the language difficulties make an already complex and difficult work sometimes nearly impossible to understand. Although it might be partially my fault, I found that in many cases I had to read many sections two or three times before becoming somewhat confident that I understood what Huvila was trying to say. In spite of these difficulties, I believe that there is enough valuable material in this book to justify a brief chapter-by-chapter commentary.

As with almost all dissertations, the first chapter summarizes the goals, methodology, and structure of the study. Based on this summary, it seems that Huvila's primary goal was to develop a qualitative theory of information work in archaeology and explore how this theory might be

used to improve archaeological information management and knowledge organization, especially in relation to virtual reality systems. Accomplishing this goal was to be facilitated by an intensive case study of information behaviors among archaeologists in Finland and Sweden.

The second chapter focuses on the concept of information work. For Huvila, information work is both a qualitative and systemic phenomenon associated with the entire life cycle of both information and information work. For Huvila, the qualitative nature of information work requires an explication of the purposes, meanings, and values of the human actors involved, while its systemic nature requires viewing information work as part of an ecological system. Although much of this theoretical material was new to me, I believe that information theorists may well discover much of interest and value in Huvila's discussion.

In chapter 3, Huvilla addresses the concepts of knowledge organization, information infrastructures, and virtual realities in light of his earlier discussion of information work. Again, I was unfamiliar with much of this material, but I suspect that there will much here of interest to information theorists.

Huvila discusses the methodology of his case study in chapter 4. It involved detailed thematic interviews with 25 archaeologists from Finland and Sweden. The interview guide is included as an appendix. This guide provided an overall structure for each interview, all of them conducted by Huvila, but he reserved the right to change the order of the questions and ask new questions as each interview evolved. Letters of invitation to participate were sent to selected archaeologists throughout Finland and Sweden; a sample of this letter is also included as an appendix. Decisions on whom to invite were based on what Huvila describes as "theoretical sampling," the criteria based on his previous knowledge of the archaeological profession in these countries. His intent was to produce a representative

sample across the dimensions of nationality, professional duties, areas of interest, institutional affiliation, training, location of employment, and gender. Although Huvila made no attempt to ensure that his sample was valid from a statistical sense, his arguments regarding the representativeness of his sample for archaeological work in Finland and Sweden are generally persuasive. He is much less successful, in my opinion, when he tries to argue that some of the results of his study are also applicable to archaeological work in other parts of the world.

In chapter 5, Huvila discusses his interview data as they pertain to archaeological work in a broader sense. Unfortunately, his discussion betrays a European-centered orientation, perhaps understandable from his personal background and that of his informants. His discussion of archaeology in North America is limited to a few brief, superficial sentences, suggesting to me that his understanding of archaeological work in North America is quite limited, a conclusion supported by the inclusion of only a few citations from the North American archaeological literature among the more than 800 citations in his bibliography. Even so, I believe that his discussion of the work-related motivations and satisfaction of his informants, and the meanings and values they ascribe to their work, will resonate with many North American archaeologists.

Huvila begins the next chapter by presenting a typology of archaeological work roles based on the results of his thematic interviews. The work roles he identifies are field archaeology, antiquarian, public dissemination, academic research, academic teaching, cultural heritage administration, and infrastructural development. For each work role, he provides a basic definition followed by a detailed discussion, including a classification and analysis of the information interactions associated with each work role. As an experienced archaeologist, this typology and the associated discussion rings true to a certain extent, although Huvila's use

of the term “antiquarian” would be very curious to most North American archaeologists. I believe this is another artifact of Huvila’s European-centered perspective. Another problem is that he inexplicably excludes communication behaviors from his discussion of these information interactions. Surely communication behaviors are an essential part of many such interactions. In spite of these concerns, Huvila’s typology and the accompanying discussion do raise some very interesting issues that are clearly relevant to understanding information behaviors in archaeology.

In chapter 7, Huvila discusses the results of his research as they apply to the broader issue of information work in archaeology. His discussion begins with a summary of the responses to his interview questions regarding the types of information sources archaeologists use and how they use them. The results generally agree with those of other user studies in archaeology and the humanities in general, although Huvila doesn’t seem to recognize the possibility that what his informants say they do with information is not necessarily what they actually do. This discussion is followed by a thematic analysis of information behaviors among his informants, including a division of his informants into four behavioral groups: intensive customers, extensive customers, intensive participants, and extensive participants. Frankly, I find this distinction to be difficult to follow and did not gain much from Huvila’s attempt to apply it to the work roles he previously defines. He does, however, offer what I believe is a useful classification of information interactions in archaeological work, including creating, modifying, organizing, preserving, disseminating, accessing, and evaluating. The chapter concludes with a series of interesting diagrams mapping the various information interactions associated with each work role, followed by a general diagram in which all the work roles are related to the life cycle of information and information work in archaeology. I believe there is much to be

learned about managing information in archaeology from this discussion.

Huvila finally turns to the issue of virtual realities and archaeological knowledge in chapter 8, beginning with a general discussion of knowledge in archaeology. Unfortunately, this discussion again suffers from a somewhat narrow, European-centered view of archaeology. When discussing the essential concepts of the archaeological record, archaeological evidence, and archaeological interpretation, he ignores the work of several North American scholars who have made essential contributions in this area. Furthermore, in a later section describing the history of computing in archaeology, he also ignores developments in North America. It is also surprising that he makes no mention of the use of geographic information systems in archaeology. Despite his rather myopic perspective, Huvila does articulate several important characteristics of archaeological knowledge that seem to fit well with virtual reality systems, including complexity, nonlinearity, and multidimensionality. Unfortunately, he doesn’t provide any discussion of specific virtual reality systems that might be useful in archaeological knowledge organization.

The book concludes with a chapter summarizing what Huvila believes are the most important results of his work. In reviewing his conclusions, I believe there are four areas in which Huvila’s results will be of special interest to readers of this journal, if they are willing to put up with the presentation problems outlined above. I believe that information theorists will find his theoretical discussion of information work to be innovative and thought provoking. The same should be true of his “thematic interview” methodology. For information specialists and librarians who work closely with archaeologists, his demonstration that information behaviors in archaeology are not limited to literature searching, but pervade the entire life cycle of archaeological work, will be of great value. And his suggestions regarding the role of virtual reality systems will surely be

of interest to those involved in the design and implementation of such systems.

In summary, I believe that there is much of value and interest in this book for many readers of this journal, although I find it impossible to recommend wholeheartedly due to the problems outlined at the beginning of this review. In addition, I believe the author and publisher made a critical error by not including an index, even though the table of contents is quite detailed. I strongly encourage the author and publisher to consider issuing a revised and corrected edition, including an index. Otherwise, I doubt that this book will have the positive impact that it otherwise might have.—*Wade R. Kotter, Weber State University.*

Johansen, Bruce E. *Silenced: Academic Freedom, Scientific Inquiry, and the First Amendment Under Siege in America.* Westport, Conn.: Praeger, 2007. 185p. alk. paper, \$49.95 (ISBN 0275996867). LC 2007-8456.

In *Silenced: Academic Freedom, Scientific Inquiry, and the First Amendment Under Siege in America*, Bruce E. Johansen has brought together several diverse stories from the news in recent years that stand as examples of increasing attacks on humans' age old search for knowledge, pursuit of scientific truths, and yearning for justice by political, economic, and religious activists whose power is threatened by an informed citizenry. Johansen opens with two quotes, the oft-quoted one in recent years of Benjamin Franklin about those who give up freedom for security deserving neither, and another by Thomas Jefferson:

Truth is great and will prevail if left to herself, that she is the proper and sufficient antagonist to error, and has nothing to fear from the conflict, unless by human interposition disarmed of her natural weapons, free argument and debate.

The book following the page on which stand these wise words tells six stories

exemplifying the extent to which power elites play on the public's ignorance and fear in pursuing their own interests and maintaining their power. In Johansen's introduction, he writes, "This is a book about people whose ideological circumstances found them on the opposite side of the powerful in our times."

Divided into six chapters, the book covers climate change, evolution, the Second Amendment, academic freedom, student and faculty rights, and terrorism, and ends with a "coda" written as a beacon of hope, a bibliography, and an index. Although many of these events will be familiar to anyone who follows the news, the important contribution here is Johansen's comprehensive analysis and synthesis of the debates surrounding each, his integrity as a scholar, and his engaging (occasionally humorous) writing.

Although most people and politicians in the United States have largely been living as if in the Dark Ages when it comes to climate change, the international scientific community has been researching and documenting global warming for decades and knows for certain that the observed changes are not part of earth's natural climate cycle but are caused directly by human activity. In other words, global warming is a fact. It is real. It is a fundamental truth of today's world. Climate change itself is not debatable.

What is open to debate, of course, is whether or not anything will be done to begin reducing the production of carbon dioxide and other substances, which are changing the chemical composition of the atmosphere. Those individuals who do not want to do anything to address the problem cannot say to the public at large, "Yes, cars and power plants are changing the climate, but there's no way we captains of industry are going to risk profits or market shares or stockholder returns on investments, and so nobody is going to tell us to go namby-pamby green!" Such a self-serving (and revealing) message would make oil company presidents, auto industry CEOs, airline