research to fuel their economies—and then want the results documented and a system to preserve and access it after that level of investment—should come as no surprise. The old story of the delayed introduction of fax machines has been well learned. The research information has been bought and paid for and should be at the ready in case it has an eventual economic benefit. This has as much explanatory power to address the paradox with which Frohmann begins the book as the shifting sands of epistemic content shot through scientific documentation and its retrieval systems and theories. The work of Frank Webster (e.g., "Information: A Skeptical Account," *Advances in Librarianship*, vol. 24, 2000) demonstrates the power of an analysis that follows the money, noting the different uses of the word *information* and its connection to economic trends. It is an abiding irony that deconstructive theories take a linguistic turn to attack dominating universalisms and meta-narratives (in science, in social theory, etc.), bypassing the universal cultural and epistemological claims currently made on behalf of market economics.

Last, Frohmann's characterization and comparison of information studies and theories skitters around. For instance, reviewing the study of science information systems and theories, he relies on the "best research" represented in the *Annual Review of Information Science and Technology (ARIST)*. He doesn't explain or document why *ARIST* articles hold this status, and he found only eight such studies in nine years (1966–1974), then one more four years later. Later, he shifts to nonscientific information studies, noting that "little of the work reviewed in *ARIST* pertaining directly to science information systems is recent because … interest in other kinds of information users caught the discipline's attention from the mid-1980's." But the later studies reviewed were *not* published in *ARIST*, and it is unclear how they relate to problems in scientific information systems and documentation. Frohmann's bibliography is rich with more recent books on the rhetoric, practice, and documentation of science, but often as not these are outside library and information science research, so they cannot be said to be typical of the field Frohmann seeks to redirect. Again, the connections seem primarily rhetorical. The authority of science information systems and studies is invoked to validate the importance of the task of deflating information, but the book shifts between general and scientific information studies to validate critiques from one arena to the other.

In sum, the book does have value in its pieces. To give another example, I think Frohmann's explication of Otlet easily provides the basis to argue that Vannevar Bush doesn't deserve the hallowed place he holds in our field. But the book is not likely to have the theoretical impact that was its main purpose. It is well indexed and edited. The combination of in-text citation, content notes at the back of the book with in-text citations, and a separate bibliography at the end serves to make that material difficult to track.—*John Buschman, Rider University.*

Shaw, W. David. *Babel and the Ivory Tower: The Scholar in the Age of Science.* Toronto: Univ. of Toronto Pr., 2005. 288p. $60 (ISBN 0802079989).

The literature about the proper role of academia boasts many passionate and eloquent contributors, including Abra-

ham Flexner, John Henry Newman, Robert Maynard Hutchins, Derek Bok, and Jaroslav Pelikan, to name only a few. With *Babel and the Ivory Tower*, W. David Shaw has earned an honored place in this genre's pantheon.

Shaw is professor emeritus in the Department of English at Victoria College, University of Toronto, and a distinguished critic of Tennyson, Robert Browning, and other nineteenth-century poets. He completed *Babel and the Ivory Tower* at about the time he retired from teaching, and the book is his effort to address the increasing isolation of humanistic higher learning. Shaw believes the contemporary university has lost its way and is market driven and vocation oriented far beyond the real needs of modern society.

Shaw contends the academy and society's obsession with the practical has led to the scientific model of inquiry being valued almost exclusively. Humanistic scholars now feel pressured to superimpose positivistic research paradigms over more appropriate methods in order to obtain funding and reputation. In response, Shaw upholds and expands on Wittgenstein's distinction between embodying truths and logically demonstrating them, or as Susanne Langer put it, between presentational forms of art and discursive forms of logic and science. Shaw's hope is to restore balance between these two paths to knowledge by enlarging "our stock of fresh ideas about the competing claims of maps and models, closed and opened capacities, in education."

Toward that end, he defines the true scholar as one who cultivates knowledge through a combination of scientific, contemplative (or humane), and practical methodologies. That is, a true scholar understands the strengths of scientific, humanistic, and professional modes of investigation and employs them appropriately to the intellectual task at hand. However, it is just as important to understand the limits of each investigative method: "In a scientific age, it is a dangerous mistake to assimilate all learning to the research model. All research is a form of scholarship—the scholarship of discovery, if you will—but not all scholarship is research."

But Shaw is as concerned about the impoverishment of the individual's intellectual and spiritual growth as he is about methodological impoverishment. He contends that the university should provide the opportunity for cultivating personal knowledge, which means mastering models of scholarship and science as personal possessions. "Unless the great organizing models of scholarship and science are appropriated as a living and personal possession, no knowledge is possible. And unless an inert body of facts is animated by an informing principle or model, the knowledge is not personal." His hope is that the university can instill a belief in the value of science and humane learning. Shaw draws on Milton Kadish's argument that "to be genuinely liberal, education must turn the information provided by a map into the knowledge conveyed by a model, which has both heuristic and predictive properties. The maps that are studied in a survey course chart the terrain and general contours of a subject. By contrast, a model initiates its users into the genres of discourse which scientists, philosophers, historians, or literary scholars habitually use and sometimes transform in the practice of their disciplines."

Beyond encouraging the cultivation of personal knowledge, Shaw argues that the university should be a haven and platform for the scholars who prod us to awaken from our dogmatic slumbers. Shaw defends the scholar's role of being a cultural critic, a questioner of the status quo, a Socrates who challenges others to reexamine assumptions and values. Shaw urges academe to reject the utility and purpose society has thrust upon it: "the university will be most useful to society by refusing to be useful. It will achieve its purpose best if it disavows purpose in favor of the free play of a scholar's contem-

plative inquiries or the more competitive, heuristic games of science."

Shaw's exposition is wide-ranging and thought provoking. Ultimately, he is not sanguine about the future of liberal education, which he believes has been almost totally consumed by a vocational education model that simply feeds a consumer economy. He shares Alvin Kernan's sense that they have reached the end of a line, when an older generation no longer passes the torch to new scholars who will take up the search for truth. As one might expect from such a source, the writing is replete with literary examples and allusions. True to his belief in the power of presentational art, Shaw's views are often expressed aphoristically or poetically, rather than in tight, logical arguments. Some readers will find this frustrating, but many others will rejoice in Shaw's erudition. Either way, Shaw's challenges to the current trends in higher education deserve careful attention. —*W. Bede Mitchell, Georgia Southern University.*

The Future of the Page. Ed. Peter Stoicheff and Andrew Taylor. Toronto: Univ. of Toronto Pr. (*Studies in Book and Print Culture*), 2004. 272p. cloth $65 (ISBN 0802088023); paper $29.95 (ISBN 0802085849). LC: 2005-391277

If the title of this volume reminds you of conferences you attended in the 1990s, early issues of *Wired* magazine, "the Gutenberg elegies," and the Age of Irrational Exuberance, you will not be disappointed. It collects papers from a conference in Saskatoon in 2000 and duly reflects agendas that have largely been eclipsed in the interim. The optimism and anxieties that underlie many of the papers here have receded as we slowly adjust to the addition of yet one more medium of communication. The irony of this, given the topic, will surely not have been lost on the editors nor on the University of Toronto Press. Print culture may be slow, but it is dependably relentless. The explosion of interest in the history of written and printed word that occurred in the

1990s as a response to the arrival of the Internet and the Web was a great good thing and continues to yield an important and impressive harvest of articles and monographs. Had the Saskatoon conference focused on a retrospective look at the page, its proceedings would have stood up better. The page, like the codex in which it nestles, has been around for millennia, its architectonics remarkable for their permanence. Better understanding the history of its formation and mutations must surely remain a priority for students of the history of the book. However, musings from the past about the future are likely to be of limited interest in the present. Much better, I think, to fly at dusk with Hegel's owl of Minerva.

To the extent that the contributors did address the topic of the conference, their prognostications sounded some familiar themes. The space of the new electronic page was greeted by many as a zone of liberation from the multiple tyrannies of print culture and its regime of fixity, its many straightjackets, orthodoxies, and hegemonies. How this will be accomplished and who will be liberated from what, however, remains largely implicit in the various soundings. The mutability of all texts was proclaimed, while authors killed once by critical theory are sacrificed again at the altar of new technology, as empowered readers claim texts by others as their own. At the same time, this destabilizing electronic space was seen by many as a new communal space that will create new ecologies of textual producers and consumers. The few medievalists at the table saw all these trends at work long ago in manuscript culture, where the idiosyncrasies of scribes had always made the page an unstable terrain. Because most of the participants hail from North American English departments, their preoccupation with authors, readers, and texts is understandable. Among the contributors are accomplished scholars, cultural materialists, and late twentieth-century Marxists. Contributions span a broad range from canonical texts to Na-