Trade Secrets: Intellectual Piracy and the Origins of American Industrial Power. *By Doron S. Ben-Atar.* New Haven: Yale University Press, 2004. xii + 281 pp. Maps, notes, index. Cloth, \$38.00. ISBN: 0-300-10006-X.

Reviewed by Catherine L. Fisk

It is generally regarded as common knowledge that, from the colonial period through the early nineteenth century, America was a consumer of European technology. It is also commonly held that early American political and economic leaders, like the leaders of most developing economies, favored the immigration into the United States of skilled artisans to offset the chronic shortage of skilled labor. Like most forms of common knowledge, these facts are usually asserted rather than demonstrated.

In *Trade Secrets*, Doron Ben-Atar, associate professor of history at Fordham University, describes the nature and extent of U.S. efforts to import technology, and the skilled artisans who could use it, during the last few decades of the eighteenth century. In the last chapter, which brings the story up to 1850, he briefly charts America's path to independence from imported technology.

The book is at once intellectual, social, and business history and is a valuable addition to the growing list of writings on the history of innovation. Through skillful use of the papers of Benjamin Franklin, Thomas Jefferson, Tench Coxe, and other early American luminaries, Ben-Atar describes the widespread and sustained recruitment from abroad of skilled artisans, who were encouraged to bring with them as much technological information as they could carry or commit to memory. He also documents a variety of missions, both clandestine and public, that dispatched people to Europe to obtain technology by any means possible. He canvasses the statutes of the colonies and the early states that encouraged the acquisition, whether by invention or importation, of technical knowledge of all types. Some states induced technological development through legislation that provided financial rewards, some adopted copyright and patent laws that granted

monopolies, but in most cases there was little effort to distinguish knowledge developed at home from information that was imported from abroad.

A judicious choice of vignettes featuring enterprising and adventurous souls who traversed the Atlantic in pursuit of knowledge makes the book eminently readable. Obscure manufacturers, enterprising inventors, and relentless self-promoters cross paths with Washington, Jefferson, and Franklin, illustrating Ben-Atar's point that the importation of technology was an important aspect of American policy. Yet the book does not argue by anecdote alone; the narrative convinces through a mountain of evidence that is adduced in support of the thesis.

When it comes to interpreting the evidence, however, Ben-Atar is less persuasive. He wants to make a sensational case: U.S. economic development was founded on the illegal misappropriation of intellectual property. His subtitle, "Intellectual Piracy and the Origins of American Industrial Power," asserts this claim. But the evidence, particularly his citation of law as proof that the diffusion of technology was theft, does not support his more sensational propositions. The title of the book is also somewhat misleading: in the late eighteenth century, the term "trade secret" was seldom used, and it did not have the broad connotations that it carries today or that Ben-Atar invokes. Thus the implied causal link between "piracy" and American industrial development is less solid than the title might suggest.

The question of whether the importation of technology was "piracy," as Ben-Atar claims, or "diffusion," as other historians would have it, remains vexing. Piracy, says Ben-Atar (relying on Webster's Dictionary, which ironically itself played a major role in early American intellectual property battles), is "an unauthorized appropriation and reproduction of another's production, invention, or conception, esp. in infringement of copyrights" (p. 215, n. 4). Ben-Atar acknowledges that it is "problematic" to refer to the importation of technology as "piracy," because there was no international intellectual property regime at the time (p. xix). He also insists that he attaches no "normative value to the practice of technology piracy" (p. xx). Yet piracy connotes illegality and has a strongly censorious flavor. His insistence on using the term, and his decision early on to

situate the book in the context of the current debate about the normative desirability of strong intellectual property protections, throws doubt on his agnosticism. Ben-Atar insists that the book concerns the illegal importation of technology (p. xix), and some of it clearly is about that. Yet not all of the technology transfer was "unauthorized," nor was it the taking of "another's" (whose?) "invention." For example, he does not substantiate his claim that E. I. du Pont de Nemours's use of the chemical facts pertaining to gunpowder manufacture was illegal (du Pont said that he learned it from Lavoisier), even though the product became the basis of du Pont's successful firm, which was situated on the Brandywine in Delaware (not Pennsylvania, as the author says on page 152). Ben-Atar recognizes the crucial importance of skilled artisans in the development, use, and diffusion of technology. But his facile equation of labor migration with piracy of knowledge adds a late-twentieth-century legal and normative spin on a phenomenon whose legal status, as he acknowledges elsewhere, was ambiguous at the time.

The artisans who were recruited to move to the United States because of their technological knowledge were not necessarily appropriating someone else's intellectual property, even under the laws of Britain at that time. They were often just bringing with them their own know-how. The prohibition against the migration of skilled labor in Britain and other countries did not make recruiting these laborers a violation of someone's intellectual property rights, nor did it even constitute piracy of technology. Today the mobility of employees with economically valuable knowledge raises intellectual property issues, but at the time the issue was regarded as a matter of labor-shortage rather than a question involving intellectual property issues.

The challenge to historians studying intellectual property before the late nineteenth century is to convince readers of the significance of the topic without succumbing to the temptation to frame it in terms of today's perspectives, which often differ from earlier ones. On the whole, Ben-Atar thoughtfully explores the tension between legal protections to induce innovation (which grant monopolies) and legal incentives to diffuse innovation (which are hostile to monopoly). Business historians will enjoy learning about this particular instantiation of an age-

old problem, and Ben-Atar's elegant treatment of the issue in the early American Republic is a pleasure to read.

Catherine L. Fisk is professor of law at Duke University. She is the author of numerous articles on employment and intellectual property in the nineteenth century, including "Working Knowledge: Trade Secrets, Restrictive Covenants in Employment, and the Rise of Corporate Intellectual Property, 1800–1920," published in the Hastings Law Journal (2001), and "Removing the 'Fuel of Interest' from the 'Fire of Genius': Law and the Employee Inventor, 1830–1930," which appeared in the University of Chicago Law Review (1998). She is currently working on a book about ownership of knowledge in the nineteenth-century employment relationship.