Lewis Pyenson

Lewis Pyenson is Professor of History in the Department of History of the Western Michigan University. He is the author of books about mathematics and physics in Germany and a trilogy about the exact sciences in the imperial experience of Germany, the Netherlands, and France during the nineteenth and twentieth centuries. He coauthored a survey of the history of science, Servants of Nature. His scholarly book, The Passion of George Sarton, examines how an early twentieth-century marriage related to the formation of an academic discipline. He is a Corresponding Member of the International Academy of the History of Science and a Fellow of the Royal Society of Canada.

The trilogy appeared over the course of eight years: Civilizing Mission: Exact Sciences and French Overseas Expansion, 1830-1940 (The John Hopkins University Press, Baltimore and London 1993); Empire of Reason: Exact Sciences in Indonesia, 1840-1940 (E.J. Brill, Leiden 1989); and Cultural Imperialism and Exact Sciences: German Expansion Overseas 1900-1930 (Peter Lang, New York 1985). It generated a great deal of interest from the time that the project took shape in the early 1970s (Pyenson, “The Incomplete Transmission of a European Image: Physics at Greater Buenos Aires and Montreal, 1890-1920,” Proceedings of the American Philosophical Society, 122 [1978], 92114). One of his conclusions, that the exact sciences in the nineteenth and early twentieth centuries did not change form in the overseas ambiots of the European imperialist powers, gave rise to an unprovoked attack and a disagreeable exchange in Isis (Pyenson’s reply: “Cultural Imperialism..."
and Exact Sciences Revisited,” *Isis*, 84 [1993], 103-108). But even these severe critics did not challenge the typology of scientist-imperialists that he discovered, and the verdict of a large number of balanced assessments of his enterprise is favorable. Four reviews, from many score more, indicate the impact of the trilogy. Anne Rasmussen, historian at the University of Strasbourg, wrote in 1998 after the appearance of the third, French volume that “the pioneering and sustained work of L. Pyenson...retain a prominent, distinctive interpretation.” The third volume’s “great merit” is “to reveal many figures in full [who are] traced in a mass of biographical sources.” It “describes very well the terms of the social contract that connect scientists to the empire.” Lewis Pyenson was “the first to have risked a synthesis about French colonial science and to have proposed a working interpretation still unequalled.” (Rasmussen in *Annales: Histoire, Sciences Sociales*, 53 [1998], 1001-1003).

Patrick Petitjean, an authority on science and colonization in the CNRS (Paris), looking forward to more work devoted to the descriptive sciences in the French empire, wrote that the third volume “is the first systematic book about French colonial sciences,” and it shows that colonial science is “far more important than previously reported from historians of colonization as well as from historians of science and technology.” (Petitjean in *Annals of Science*, 52 (1995), 187-192).

Australian social anthropologist Clive Kessler, in a long commentary on the second, Dutch volume, emphasized the subtlety of the argument:

> Not a conspiracy, then, nor even an impersonal, structurally induced convergence of diverse influences all working broadly in the same direction, cultural imperialism for Pyenson is rather the outcome of the untidy, even inchoate, clash of a variety of forces of variable strengths pulling unevenly in different directions and varying over time in salience and also in their clarity of articulation.

Kessler continued: “The agenda of Dutch colonial scientific endeavor explored by Pyenson was an impressive one, international in its horizons and in the recognition its distinctions earned.” He perceived Pyenson’s contention that science and imperialism could be understood

> By recourse to...Michel Foucault's ideas on the shaping of power by, and its immanence in, scientific and disciplinary discourses; and Clifford Geertz's arguments that, far from emerging from any pre-existing 'givens' of power, simply to rationalize and ratify its purposes, culture enters into the very shaping, and is thus constitutive, of power itself.

(Kessler, “Colonial Science and the Creation of a Postcolonial Scientific Tradition in Indonesia,” *Akademika: Journal of Southeast Asia Social Sciences and Humanities* [Universiti Kebangsaan Malasia Press], 37 [December 1990], 91-105). And the historian of medicine José María López Piñero, reviewing Pyenson’s work in connection with linguistic imperialism in Europe, wrote that “assimilating with care the explanations and the conclusions of Pyenson’s works about scientific imperialism will be of significant benefit for studies of scientific activity in Spain.” (López Piñero, “El imperialismo científico,” *Saber/Leer* [Madrid], no. 81 [January 1995], p. 12).

The general work written with Susan Sheets-Pyenson, *Servants of Nature: A History of Scientific Institutions, Enterprises, and Sensibilities* (HarperCollins, London/W. W. Norton, New York 1999), also received favorable comment from an unusually broad spectrum of reviewers. In one of its very few reviews of a book in history of science, the *New Yorker* (17 May 1999, p. 91) commented: “The book’s inclusiveness helps us recognize not only how science affects everything, from daily life to government budgets, but also the way we think about everything, from politics to poetry.” The
literary reviewer Peter Ackroyd finds that “One of the strengths of this volume, in fact, is the extent to which it illuminates how science alters according to the country or culture in which it is practiced.” (Ackroyd in London Times, 29 April 1999). In 2012 sociologist Steve Fuller reviewed the second volume of Peter Burke’s Social History of Knowledge, comparing it to Servants of Nature, “a work of similar scope and vintage” with “a more overtly philosophical and specifically Marxist flavor.” Fuller elaborated: “The Pyensons are mainly interested in the materiality of knowledge as an ideological conduit,” concluding “on the worry that the often violent modes of domination through which science advances is breeding an ideological backlash that may soon undermine the enterprise [sic].” (Fuller in Journal of Global History, 7 [2012], 534). No Marxist, the dean of US historians of science Charles C. Gillispie emphasized a decade earlier: “Their introduction is a masterly brief survey of the evolution of historiography of science from Comte to postmodernism, about which they are severe, justly in my view.” About the work in general, “the most appealing feature is the deftness with which they handle a comparative approach, selecting both the common features and the distinctive differences in the cultivation of science throughout the ages in Europe, the Orient, India, and Islam.” It is a “masterly and wide-ranging...book, conceived in an altogether original manner, carried off with verve and dignity, and mercifully free of jargon and methodology.” (Gillispie in Annals of Science, 59 [2002], 409–412). The stern critic Paula Findlen devoted four pages to rehabilitating postmodernist scholarship and informing a reader about themes that she would have preferred to see, but she concluded that the book is “a valuable contribution to the general history of science.” (Findlen in Isis, 91 [2000], 117-120).

Pyenson’s scholarly publications divide into four groups: a) historiography; b) history of modern exact sciences; c) science beyond Europe; d) art and science in Modernity.


b) History of modern exact sciences. Pyenson’s study The Young Einstein: The Advent of Relativity (Adam Hilger, Bristol and Boston 1985) appeared several years before the first volume of the Collected Papers of Albert Einstein. Since then, a small army of editors combing through the details


