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Lissa Roberts, ed. *Centres and Cycles of Accumulation in and around the Netherlands during the Early Modern Period*.

Centres and Cycles of Accumulation in and around the Netherlands during the Early Modern Period by Lissa Roberts

Review by: Benjamin J. Sacks

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Several essays go beyond showing reciprocal influences to argue that natural history was in large part indistinguishable from art in this period. Indeed, in her essay on scientific gardens, Therese O'Malley asserts that "no boundary existed between science and art" (p. 56), for such gardens were "botanical museums in three dimensions" that combined "the didactic, the scientific, and the aesthetic" (p. 38). Alicia Weisberg-Roberts's study of natural history designs on textiles documents the precision with which textile designers used models drawn from natural history illustrations and discusses the cultural work done by shifting patterns of design. Janice L. Neri describes the passion for chinoiserie, which stemmed partly from a belief that China, with its similar climate but its superior productivity and elegance, was a model for North Americans in their relationships to the natural world. For her, too, the boundary "between the design principles of the decorative arts and those of natural history illustration" was "fluid" (p. 188). Such arguments raise questions about categories and boundary making on the cusp of modernity.

Other essays have little to say about natural history as a science *per se* yet show how interpretations by scholars from other disciplines can illuminate the sources often used by historians of science. The art historian Alexander Nemerov contributes two such essays. One interprets the political, religious, and social meanings of Benjamin Henry Latrobe's drawing of a rattlesnake skeleton. The other compares an illustrated travel narrative by the anatomist John Godman with the natural history illustrations of John Jay Audubon and the novels of James Fenimore Cooper in terms of these men's responses to mass democracy in the early republic. Nemerov's contributions are deeply thoughtful and thought provoking.

The remaining essays are likely to be of interest to historians in other fields, although all of them have at least a tangential connection to natural history. Garden historians may appreciate Joel T. Fry's chronology of the Bartram Botanic Garden and, particularly, Mark Laird's discussion of shifting concerns with vulnerable exotic plants and animals among English garden lovers. Historians of print will find James N. Green's study of struggles to represent the colors of birds and plants faithfully in printed illustrations well worth reading. Robert S. Cox contributes a fascinating essay on Quaker missions to the Senecas and how their mutual agricultural endeavors facilitated each group's re-fashioning after the havoc wrought by the Revolution. Kenneth Haltman assesses the visual productions of two artists sent on Stephen

Harriman Long's 1819–1820 expedition in light of the near absence of visual evidence from Lewis and Clark's expedition, which would be of interest to historians of Western expansion.

Meyers is to be commended for eliciting these almost uniformly illuminating essays and Yale University Press for a magnificent production. Essays like these require visual accompaniment, and there are well over two hundred beautifully clear color illustrations in this volume; Latrobe's rattlesnake skeleton is laid out over four full pages and is stunning. This is a valuable collection for historians of natural history.

SARA STIDSTONE GRONIM

**Lissa Roberts** (Editor). *Centres and Cycles of Accumulation in and around the Netherlands during the Early Modern Period*. (Low Countries Studies on the Circulation of Natural Knowledge, 2.) ii + 290 pp., illus., bibl., index. Berlin: LIT Verlag, 2011. €34.90 (paper).

Globalization facilitates the accumulation of knowledge. Scientific, economic, and political narratives, when woven together in sociopolitical environments conducive to the exchange of ideas, can produce remarkable results. In the long seventeenth century (ca. 1570–1730), the Netherlands became an international repository for a vast array of scientific, humanistic, and technical knowledge. In 2008, Lissa Roberts and Steven Vanden Broecke sought to address possible explanations in a workshop concerning how the Netherlands became a center for knowledge collection, organization, and dissemination and, indeed, what "accumulation" meant in varying Dutch contexts (pp. 1, 18). The resulting conference papers, published by LIT Verlag as *Centres and Cycles of Accumulation in and around the Netherlands during the Early Modern Period*, attempts to explore possible solutions to rather than definitively answering these questions.

The nascent Dutch Republic actively promoted itself as a new "hub" of a globalizing imperial world (p. 29). As Karel Davids pointedly demonstrates, the Netherlands sought to assert its commercial and intellectual strengths vis-à-vis its former ruler, Spain. A dynamic blend of private and government actors, operating in the Netherlands' relatively progressive political environment, fomented the exchange of ideas, material goods, and technological and scientific advances.

Acquisition of knowledge could occur through traditional means, such as learned societies' publication of research and observations (see Pete Langman's essay), scholarly books,

and the formation of elaborate sociopolitical networks. Arjen Dijkstra shows with particular clarity how the proximity of energetic scholars, universities, and interdisciplinary discussions of mathematics, astronomy, philosophy, and medicine produced remarkable results (pp. 73–99). Dijkstra’s essay distinguishes the important role of Dutch individual actors and learned societies in a field traditionally dominated by discussion of the formation of contemporary English and French institutions (e.g., Steven Shapin and Simon Shaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* [Princeton, 1985]; John Gribbin, *The Fellowship: Gilbert, Bacon, Harvey, Wren, Newton, and the Story of a Scientific Revolution* [Overlook, 2007]). But knowledge collection and exhibition could also be found via more exotic or unexpected mediums. Alette Fleischer’s essay, on the botanical efforts of the Dutch East India Company (VOC) at the Cape of Good Hope, describes gardens as both sources and controllers of knowledge. In accordance with the anthology’s global, connective approach, Fleischer artfully situates the VOC’s experimentation within terrain established by Bruno Latour’s *Science in Action* (Harvard, 1987), as well as more traditional historical accounts such as Richard White’s famed *The Middle Ground* (Cambridge, 1991) (p. 104). The article, however, lacks detailed comparative discussion; recent scholarship—for instance, M. Norton Wise and Elaine M. Wise’s elegant analysis of imperial experimentation in Germany’s Pfaueninsel (“Peacock Island”) gardens (“Staging an Empire,” in *Things That Talk: Object Lessons from Art and Science*, ed. Lorraine Daston [Zone, 2004])—might have aided understanding of the VOC’s motivation in establishing and utilizing the garden. Overall, Roberts performs an admirable job of synthesizing narratives that appear, at first glance, disparate from each other. In so doing, *Centres and Cycles of Accumulation* comprehensively identifies the sheer breadth of knowledge that was collected, organized, and distributed in the Dutch world.

Broadly speaking, the volume is successful in placing the Netherlands’ efforts within the global context. Rina Knoeff’s account of public exhibitions brings the global accumulation of collected knowledge and artifacts from the Dutch empire and beyond back into the domestic sphere. Knoeff effectively demonstrates both formal and informal modes of public education that placed the Netherlands at Europe’s intellectual heart in the long seventeenth century. The university itself became a tourist destination, both as a scholarly repository of global informa-

tion and as a “visitable” site, a means to travel around the world vicariously (pp. 160–166).

The compilation nonetheless suffers from some of the minor problems faced by many conference-derived anthologies. Although the book includes the occasional portrait or map, it would greatly benefit from more organized, inclusive, and effective illustrations and the inclusion of an enhanced area map in the introduction to situate readers. *Centres and Cycles of Accumulation* could also profit from greater criticism of theory. These problems stand as relatively insignificant issues in what is otherwise a landmark addition to the history of science, Enlightenment history, and the study of the Dutch empire. Its greatest shortcoming, then, is that because it is published and distributed by a small press it may not enjoy the full attention it clearly deserves.

BENJAMIN J. SACKS

**Carl Wennerlind.** *Casualties of Credit: The English Financial Revolution, 1620–1720*. 248 pp., bibl., index. Cambridge, Mass./London: Harvard University Press, 2011. \$39.95 (cloth).

In this lively and intelligent account of seventeenth- and early eighteenth-century economic debates, Carl Wennerlind explores the relationship between the early seventeenth-century “Scientific Revolution” (in the sense of “alchemical and Baconian thinking”) and the evolving “culture of credit,” which he categorizes as the “Financial Revolution” in the broadest sense. The author follows Joel Mokyr and Margaret Jacob in seeing a causal link between the “Scientific Revolution” and the “Industrial Revolution,” but he asserts that the “Scientific Revolution” was equally important in shaping the contours of a roughly contemporaneous “Financial Revolution” (1620–1720). Such a periodization is novel and not uncontroversial.

Most modern historiography uses “Financial Revolution” as a term of art for the innovations in public finance that followed in the wake of the Revolution of 1688–1689 and continued apace until the War of Austrian Succession. For Wennerlind, innovations in public finance were, rather, the product of a much wider-ranging reconfiguration of attitudes toward private and public credit that began in the 1620s. This rhetorical strategy represents a courageous and original restatement of the terms of an increasingly sterile debate about those economic writings that have traditionally been labeled “mercantilist.” Wennerlind is, by his own admission, an intellectual historian rather than an economic