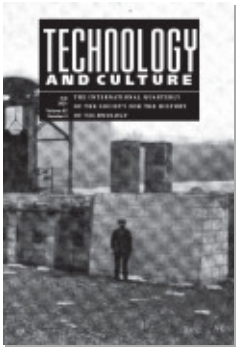
Artisanal Enlightenment: Science and the Mechanical Arts in Old Regime France by Paola Bertucci (review)



Sven Dupré

Technology and Culture, Volume 62, Number 3, July 2021, pp. 956-958 (Review)

Published by Johns Hopkins University Press
DOI: *https://doi.org/10.1353/tech.2021.0137*

JULY
2021
VOL. 62

A special strength of Williamson's work is the emphasis on the role of people with disabilities as active agents of change in design. They shape urban spaces and Williamson rightly presents them as creators of smart solutions that were often first "improvisational survival tactics" (p. 117). It corresponds with a perspective on the relation between technology and disability, currently present within disability studies and activism, that highlights the DIY or even guerilla vibe of this relation. *Accessible America* manages to include the hidden stories of the history of disability-related design and places them in a wider context of technological, political, and social change, including the growing impact of the disability movement.

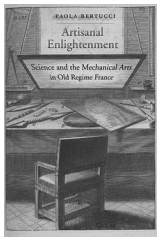
MAGDALENA ZDRODOWSKA

Magdalena Zdrodowska is an associate professor at the Jagiellonian University, Poland. She currently conducts research on the deaf history of cinema, which is devoted to the complex relations between film and non-hearing.

Citation: Zdrodowska, Magdalena. "Review of *Accessible America: A History of Disability and Design* by Bess Williamson." *Technology and Culture* 62, no. 3 (2021): 954–56.

Artisanal Enlightenment: Science and the Mechanical Arts in Old Regime France

By Paola Bertucci. New Haven: Yale University Press, 2017. Pp. 312.



This book explores the relationship between science, the mechanical arts, and the French state, from the founding of the Académie Royale des Sciences in 1666 until the first volumes of the *Encyclopédie* published in 1751. In her study, Paola Bertucci focuses on a largely forgotten society, the Societé des Arts, whose members advocated the notion that the improvement of the mechanical arts was essential for the economic prosperity and colonial expansion of the French state. Bertucci's *Artisanal Enlightenment* reveals the hidden relationship between the *Encyclopédie* and the projects of the Societé des Arts. Diderot (of the *Encyclopédie*) was inspired and indebted to numerous writings on the arts by Societé members. However, as Bertucci convincingly shows in the epilogue of her book, Diderot was also responsible for making this relationship invisible. By promoting the authors of the *Encyclopédie* to savants, he erased the political epistemology that the Societé members had articulated. This book therefore recovers what the Enlightenment looked like from the perspective of Societé des Arts members instead of the *philosophes*—the perspective which became dominant due to Diderot.

Despite the book's title, the Societé des Arts's members did not consider themselves artisans; nor were they philosophes. The members' reaction to the increased interest in the mechanical arts from the side of the savants and the Académie Royale des Sciences was not to elevate the status of

artisanal labor or the perception of the artisan. Instead, they developed in their writings a strategy to differentiate themselves from mere artisans, proclaiming themselves to be *artistes*. The artiste, the central character of Bertucci's book, is the artisan with *esprit*. The theory of knowing that the artiste developed emphasized the role of the body and manual dexterity. Yet, it differed from the "artisanal epistemology" discussed by Pamela Smith in *The Body of the Artisan* (2004). The artistes did not argue for a way of knowing that was typical for all artisans, but on the contrary claimed that their epistemology differed from other practitioners of the arts. Bertucci touches upon the meaning of esprit and the distinctiveness of the artistes' epistemology, contrasting it with "artisans' subservience to rules . . . derived from the classical definition of art, and in particular of the mechanical arts, as *techne*" (p. 9). It would be interesting to survey artistes' writings on the language of ingenuity as recently scrutinized in Alexander Marr's and his colleagues' *Logodaedalus* (2019). Bertucci emphasizes the political dimension of this epistemology.

Bertucci builds upon the substantial number of studies in the history of art, science, and technology devoted to writings on the arts that argue that writing is a political act. Her book is particularly good at articulating the various portrayals of artisans and their epistemologies throughout the diverse publication projects on the arts in old regime France. According to Gilles des Billettes (of a noble family and inventor of a hydraulic machine) and René de Réaumur (a physicist and elected member of the Académie des Sciences), artisans were not peers, and because of their secretive nature, they were even obstacles to writing a natural history of the arts. In Réaumur's view, Bertucci argues, there was no ingenuity either in their hands or in their minds. The Societé des Arts's concept of artisanal knowledge was radically different. It considered, unlike Réaumur, that the perfection of the arts would emerge in the artisans' very creation process, rather than through experimental knowledge gained in Réaumur's laboratory. Moreover, despite the artisans' secrecy, the Societé discovered and encouraged collaboration among artistes, and followed the model of the Republic of Letters. The artiste's useful knowledge, openly shared for the public good, consisted of "manual dexterity, knowledge of materials, as well as the ability to organize, maintain, and direct a workshop" (p. 162).

However, this is not necessarily an emancipatory project for artisans. Bertucci's final chapter clearly shows that the inventor of automata Jacques Vaucanson's projects for the French state, in particular his attempts to mechanize the French textile industry, were based on a concept of artisanal laborers as dehumanized operators. Vaucanson shifted the esprit from the laborers to his machines. Bertucci's book is a must-read for all historians of early modern technology interested in the plurality of artisanal knowledge.

SVEN DUPRÉ

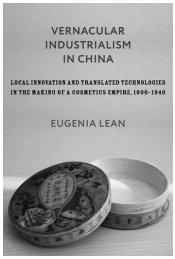
Sven Dupré is professor of history of art, science and technology at Utrecht University and the University of Amsterdam. His recent publications include *Gems in the Early Modern World: Materials, Knowledge and Global Trade, 1450–1800* (Palgrave Macmillan, 2019).

Citation: Dupré, Sven. "Review of *Artisanal Enlightenment: Science and the Mechanical Arts in Old Regime France* by Paola Bertucci." *Technology and Culture* 62, no. 3 (2021): 956–58.

JULY
2021
VOL. 62

Vernacular Industrialism in China: Local Innovation and Translated Technologies in the Making of a Cosmetics Empire, 1900–1940

By Eugenia Lean. New York: Columbia University Press, 2020. Pp. 395.



In the English literature, most accounts of entrepreneurship in China's modern industry focus on large-scale enterprises using imported machines, with foreign engineers providing technical leadership. Eugenia Lean's study shifts the attention to what she calls "vernacular industrialism." This form of manufacturing, she argues, was "local and homegrown (as opposed to imperialist or foreign), informal, and part of China's consumer culture (rather than state sponsored or located in academia), as well as artisanal in spirit and family run, even if eventually situated in factories" (p. 3). Her study is a fascinating account of the commercial empire built by Chen Diexian (1879–1940), creator of one of China's leading cosmetic brands. Lean explores his roles as popular author, distinguished professional editor, and industrial entrepreneur. One of the great pleasures of reading Lean's study is how she brings together Chen Diexian's full range of literary and entrepreneurial achievements for this portrait. She completes it with new analytical approaches to the social history of modern science and small-scale manufacturing in twentieth-century China.

Chen, a native of Hangzhou, came from a literati family and first gained fame as an author of serialized romantic novels. Throughout his career, Chen engaged in what the author calls "tinkering" or "gentlemanly experimentation" to develop new products and rethink the practices of innovation and production. This tinkering, based on recipes or formulas for making items of daily use, led not only to the creation of Chen's Butterfly brand tooth powder, but also a foam fire extinguisher and other consumer products.

Later sections of the book examine the results of Chen's and others' scientific experiments. Using his literary talent and familiarity with the new Shanghai-centered media, Chen published essays and compiled a series of books on "common knowledge," including basic science and manufacturing processes. He used his media skills to design sophisticated marketing strategies for the Butterfly brand name and fought court battles to defend his trademarked goods against cheap copies.

Lean's volume is an important contribution to our knowledge of Chinese industry's progress in the first half of the twentieth century. It demon-