

The Taylorized Beauty of the Mechanical: Scientific Management and the Rise of Modernist Architecture. By *Mauro F. Guillén*. Princeton: Princeton University Press, 2006. xii + 186 pp. Photographs, figures, tables, bibliography, notes, index. Cloth, \$29.95. ISBN: 0-691-11520-6.

Reviewed by Per Hansen

The Taylorized Beauty of the Mechanical is an ambitious work. Mauro Guillén draws from an abundance of sources, both contemporary and recent, to support his hypothesis that there was a connection between the rise of scientific management and the development of modernist architecture. He describes how, as scientific management took hold in Europe and America during the first half of the twentieth century, architecture became increasingly oriented toward planning, standardization, and efficiency, and architects focused on making buildings more functional and improving the conditions of the people who used them.

This insight is not new, as Guillén concedes. What separates him from others writing in the same vein is his adoption of a comparative approach and his systematic effort to uncover the links between scientific management and modernist architecture. Guillén traces the origins of modernism to continental Europe, primarily to the Bauhaus school and its German antecedents. His explanation for the leadership role of the German architects is that they were trained in engineering, whereas French architecture students were largely instructed in the Beaux Arts approach: “The common denominator to all countries in which modernism succeeded as a movement was the influence exerted by engineering and scientific management in the process of education and professionalization of architects” (p. 137).

Another original feature of the book is Guillén’s explanation of the reasons for the development of modernist architecture and for the different characteristics it assumed in nine European and American countries (Britain, Germany, France, Italy, Russia, Spain, Mexico, Brazil, and Argentina), before it was eventually adopted in the United States, the birthplace of Taylorism and scientific management. Guillén divides the causal factors into two categories: the contextual/historical, which includes industrialization,

sociopolitical upheaval, class dynamics, and consumption; and the institutional, which includes state and business sponsorship, education, professionalization, and, to a lesser degree, networks.

The contextual factors were catalysts for the development of modernism. Thus, neither industrialization nor social upheaval nor class dynamics were sufficient to explain the emergence of modernist architecture. Pursuing Alexander Gerschenkron's influential, but problematic, ideas about backwardness, Guillén suggests that there might have been a causal link between backwardness and the success of modernism in the nine nations he considers. In adopting Gerschenkron's position on the stages of backwardness, Guillén reaches the somewhat questionable conclusion that Germany was more backward than France before and during the interwar period.

While acknowledging the part played by historical factors in promoting modernism, Guillén argues convincingly that state sponsorship and companies' increasing demand for the new types of buildings were instrumental in furthering German modernism. Likewise, in Brazil and Mexico, the state encouraged the construction of these modern buildings. The rise of dictatorships in Europe during the interwar years brought modernism to a halt in Germany, Russia, Italy, and Spain, but it was (re)exported to the United States.

In emphasizing the contribution of engineers to the professionalization of architecture, Guillén suggests that the supply, or production, side of architecture was more important than the demand, or consumption, side. However, this point requires more analysis of the interplay between producers and consumers of modernist architecture (and design) in order to be convincing. Guillén's third institutional factor, the networks, receives too little attention in my view. His narrow understanding of the networks as a collection of architects who were part of the modernist movement may explain his insistence on the importance of the production side. Had he included in his consideration of the network the various organizations, states, consumers, and critics, the consumption and market side of the story might have been more prominent.

To be fair, Guillén does at least describe these organizations, and he surveys the demand side, but he is clearly interested mainly in organizational theory and in the engineering aspects of his architectural history. Within that framework, Guillén has

written an excellent comparative study that will appeal both to business historians and to architectural and design historians.

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