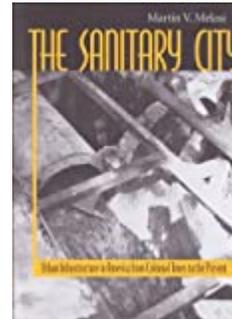




Martin V Melosi. *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present.* Baltimore: Johns Hopkins University Press, 2000. xii + 578 pp. \$59.95 (cloth), ISBN 978-0-8018-6152-9.



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This book marks the culmination of many years work by one of the leading urban environmental historians of the last thirty years. It is without doubt the most comprehensive and detailed account yet written of the evolution of urban environmental infrastructure in the United States. The book's primary focus is on three aspects of urban sanitary practice: water supply, sewerage, and solid-waste disposal. "While others have studied the history of these services individually," writes Melosi, "no one has attempted to integrate all three services into one study covering such a long time period" (p.2).

Melosi has organized the book chronologically into three major sections: "The Age of Miasmas," "The Bacteriological Revolution," and "The New Ecology". In the first part of the book, "The Age of Miasmas", Melosi traces changing sanitary practices from the colonial era into the late nineteenth century. He charts contrasting approaches to the management of cities through a period of momentous social and economic change. Of particular interest in this section of the book are the parallels drawn between the experience of Europe and North America and the diffusion of sanitary discourses across the Atlantic. Central to Melosi's argument is the evolving interaction between new technological and administrative systems which would culminate in the sophisticated water works and sewer systems of the modern era.

In part two, entitled "The Bacteriological Revolution", we explore the culmination of new technical approaches to the management of integrated urban systems in the early decades of the twentieth century. In a sense Melosi is presenting us with a sanitary corollary to the new kinds of scientific management being introduced in the American production process. The bacteriological discoveries of the late nineteenth century underpinned the growth of new kinds of technical expertise in urban governance. A "professionalization" of urban sanitation was underway which mirrored developments in others fields such as urban planning and landscape architecture. A key figure in Melosi's analysis is George E Waring, who introduced a new kind of managerial authority and organizational sophistication to the "garbage problem" in American cities. The pre World War I era thus emerges as a uniquely significant historical juncture in Melosi's analysis and provides a useful counterpoint to the emphasis on New Deal era public works in many other studies.

In the final section of the book, "The New Ecology", Melosi explores the new post-1945 challenges to urban sanitation. He identifies a range of issues such as fiscal pressures on urban technological systems, the challenge of the environmental movement and the shift from point-source to increasingly complex nonpoint sources of pol-

lution. The “urban crisis” facing many metropolitan cities and growth of the suburbs placed established urban infrastructure systems under severe strain and contributed towards problems of chronic under investment. The new emphasis on environmental quality also pitted technical expertise against public opinion in arenas such as water fluoridation and waste disposal. The ability of engineers to shape the urban environment was now subject to a range of newly emerging political and economic realities. For Melosi, the infrastructure challenges of the second half of the twentieth century remain to be satisfactorily resolved as the “path dependence” driven by previous cycles of capital investment constrains the possibilities for large-scale technological change.

The main weakness of Melosi’s book lies at a conceptual level: the breadth of empirical material is not matched by clear theoretical insights into the shaping of cities. In the introduction, for example, the differences between ecological metaphors with their roots in nineteenth-century urbanism and the emergence of neo-Marxian perspectives developed by David Harvey and Manuel Castells in the 1970s are elided as part of a general modification of organic theory. At root there is clearly a tension in Melosi’s analysis between different political, technical and cultural dimensions to the production of urban space but the overriding emphasis is on the emergence of what Melosi terms “sanitary systems” rather than any broader conception of the urban process as a politically contested terrain. In other words, the epistemological differences between the wide array of urban literature cited in this book are not explored in any systematic way.

Equally, recent psychoanalytic insights into the “hidden city” and metaphorical conceptions of urban space are neglected in this study. To what extent, for example, have changing cultural understandings of technology shaped attitudes towards the city? It would be interesting to know more about how the perceived decline of physical infrastructure in the 1970s fed into new ways of understanding and representing the American city. The degree of public ignorance about what lies “beneath the city streets” and the wider technological shift from major engineering projects to new forms of technical inno-

vation in semi-conductors, bio-engineering and the like must be a significant dimension to the changing culture of American urbanism [1]. Ultimately, however, these conceptual limitations are derived from the somewhat narrow theoretical base which has evolved within the sub-discipline of environmental history. This is not so much a criticism of Melosi but rather of the disciplinary field within which this study is framed.

These conceptual concerns aside, this book is a major achievement in bringing together such a rich and diverse selection of material in one volume. The historical scope and empirical detail provide a myriad of interesting avenues for further research. The *Sanitary City* is a superb record of the ingenuity and complexity of civil engineering and urban sanitation in the United States. Any student, scholar or interested general reader will find this book an invaluable starting point for learning more about the history of urban infrastructure.

Notes:

[1]. On the cultural and theoretical dimensions to urban infrastructure see, for example, Matthew Gandy, “The Paris sewers and the rationalization of urban space” *Transactions of the Institute of British Geographers* (1999) 24 pp. 23-44; Thomas H Garver, “Serving places,” in Stanley Greenberg *Invisible New York: the hidden infrastructure of the city* (Baltimore and London: Johns Hopkins University Press, 1998) pp. 3-7; Lisa Gitelman 1992 “Negotiating a vocabulary for urban infrastructure, or, the WPA meets the teenage mutant ninja turtles”, *Journal of American Studies* 26 (1992), pp. 147-158; Maria Kaika and Erik Swyngedouw “Fetishising the modern city: the phantasmagoria of urban technological networks” in *International Journal of Urban and Regional Research* 24, (2000), pp. 120-138; Peter Seidel *Unterwelten: orte in verborgenen / sites of concealment Texts by Manfered Stack and Klaus Kemp* (Tuebingen: Ernst Wasmuth Verlag, 1993); Anthony Vidler, *The architectural uncanny: essays in the modern unhomely* (Cambridge, MA and London: The MIT Press, 1992); and Rosalind H Williams, *Notes on the underground: an essay on technology, society, and the imagination* (Cambridge, MA and London: The MIT Press, 1990).

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