

H-Net Reviews

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Mark H. Rose. *Cities of Light and Heat: Domesticating Gas and Electricity in Urban America*. University Park, P.A.: Pennsylvania State University Press, 1995. xviii + 201 pp. \$34.50 (cloth), ISBN 978-0-271-01349-7.

Reviewed by Carl Zimring (Carnegie Mellon University)

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Mark H. Rose's *Cities of Light and Heat* combines elements of urban history, gender history, and business history to explain how the diffusion of gas and electricity helped shape twentieth-century life. Rose's study focuses on Denver and Kansas City up to World War II, and expands to a national focus thereafter. For the most part, this is a successful and satisfying work.

Rose begins with a discussion of how the local political and economic systems in Denver and Kansas City between 1860 and 1900 influenced the development of utilities. Both cities experienced franchise wars among competing firms, producing frequent bankruptcies and chaos. With increased regulation by local government after 1900, a few firms grew to dominate local markets. In Denver, Henry L. Doherty's Denver Gas & Electric Company became a dominant utility. In Kansas City, the Kansas City Gas Company and Kansas City Power & Light attained dominance. The shift from a chaotic marketplace with several private competitors to public regulation of a few firms is consistent with the current literature on local regulatory development, particularly Harold L. Platt's recent book on Chicago.[1]

Rose discusses these changes primarily through looking at Doherty's career in Denver. Doherty pioneered the use of modern organizational structures in Doherty's Denver Gas & Electric Company (and later the larger Cities Service Company). He instituted progressive rate structures and promoted appliances and products as necessary components to households in the emerging affluent urban and suburban peripheries. Rose identifies Doherty's sales staff as "agents of diffusion" (p. xvi) who popularized use of the utilities by claiming they were necessary to safe, comfortable, modern life. Sales personnel were not the only agents of diffusion. Educators and real estate developers also promoted the use of gas and electricity.

Rose's discussion of Doherty's work in promoting energy in Denver provides a satisfying western counterpoint to Platt's study of Chicago utilities baron Samuel

Insull. Both Doherty and Insull consolidated large public utility holding companies after the turn of the century and promoted the use of appliances. Rose considers both Doherty's organizational strategies and his attention toward gender. An important part of Doherty's sales strategy was "to define gas and electric appliances as appropriate for women alone" (p. 73).

For the period between the wars, Rose takes the cases of two such "agents of diffusion," Denver Gas executive Roy G. Munroe and famed Kansas City subdivision developer J. C. Nichols, to explain how salesmen participated in expanding demand for gas and electricity, or in Rose's words, how "ecologies of technological knowledge" (p. 113) were shaped between the wars. These men built upon the strategies Doherty pioneered to expand the use of modern conveniences. Munroe sold appliances to middle- and upper-middle class families, promoting irons, washing machines, and other appliances as necessary for a safe, clean household. His sales pitch targeted women as users of the new technologies, and implied men were obligated to provide their wives with the tools to maintain a successful home. Nichols, perhaps the most influential of what Marc A. Weiss calls "the community builders"[2], developed elite residential subdivisions on Kansas City's periphery. Nichols also used the lure of modern conveniences in his advertisements. This appeal to modernity, especially in saving labor, promoting hygiene, and controlling one's environment, reflects a solid understanding of early twentieth-century consumer culture.[3]

For his study of the period after World War II, Rose moves away from his case studies to discuss the national proliferation of energy. Between 1945 and 1970 Americans increasingly desired more control over their environments and used gas and electricity to achieve that control. Aside from commonplace appliances such as air conditioners and heated pools, Rose notes attempts to maintain comfort levels that border on the absurd. Beyond air conditioners and central heating, "gas fired bap-

tismal tanks.... represented the increasing ability of ordinary Americans of every faith to regulate portions of their environments beginning soon after birth and ending only with death" (p. 172). Rose sees the period after 1970 as a realization that resources are not endlessly abundant. In this context, consumption is tempered by a perceived need to conserve energy.

The book is strongest in its consideration of the development of gas and electric systems between 1900 and 1940, when it concentrates on Denver and Kansas City. Rose deftly combines his discussion of the energy firms as developing businesses with social and political aspects that contributed to their development. Especially impressive is Rose's attention to gender and how salespeople promoted gas and electricity as necessary elements of household management. *Cities of Light and Heat* shows how the changing infrastructure affected the everyday lives of urban dwellers (or at least middle- and upper-class urban dwellers). Rose's synthesis of business and cultural themes provides suggestions for future research in the development of urban infrastructures.

It is on this point, however, that one of my two reservations about the book rests. Though Rose discusses at great length the existence of "ecologies of technological knowledge," he never defines the term (apart from noting it includes aesthetic sensibilities, the built environment, and the technological awareness of upper- and upper-middle class consumers [p. 113]), or explains how ecologies are created. Rose seems to argue that salespeople shaped demand for appliances, yet the term (and Rose's discussion elsewhere of schools teaching awareness about the possible uses of gas and electricity) implies a larger understanding of new technologies that is not limited by consumer demand for new things. Did salespeople create and control these ecologies, or were their efforts part of a larger process in which many factors defined energy's relationship to modern living? I suspect Rose would argue the latter, though an explicit discussion would be helpful for scholars interested in applying the term to other studies.

My second reservation has to do with Rose's research design, or rather, his abandonment of the research design towards the end of the book. His reasons for moving away from the case studies of Kansas City and Denver to a national focus are unsatisfying. Even if the patterns of energy consumption and production in the postwar period became national, keeping the focus on Kansas City and Denver could show how changing patterns affected areas Rose has already documented. In short, the move away from the case studies precludes a satisfying explo-

ration of change over time and reads as a cursory addendum to an excellent study of the prewar era. Perhaps the temptation to include compelling examples from the South and West such as the climate-controlled baptismal tanks proved too strong, but the shift is jarring.

Given these reservations, this is still an impressive book. *Cities of Light and Heat* ably links the development of urban infrastructure to ways in which households changed their use of energy. This book is recommended for anyone interested in the development of urban gas and electric systems, or in early twentieth-century consumer culture.

Notes

[1]. See especially Harold L. Platt's *The Electric City: Energy and the Growth of the Chicago Area, 1880-1930* (Chicago, 1991). Such consolidation of urban infrastructure was not limited to gas and electricity. Paul Barrett's *The Automobile and Urban Transit: The Formation of Public Policy in Chicago, 1900-1930* (Philadelphia, 1983) discusses how urban transit systems experienced similar developments after the turn of the century.

[2]. A good introduction to J. C. Nichols and the emergence of "community-builders" in the early twentieth century is Marc A. Weiss's *The Rise of the Community Builders: The American Real Estate Industry and Urban Land Planning* (New York, 1987).

[3]. Rose's discussion of consumption and modernity echoes Roland Marchand's *Advertising and the American Dream: Making Way for Modernity, 1920-1940*.

Reply from Mark Rose, Department of History, Florida Atlantic University <m_rose@acc.fau.edu>

I am pleased to reply to Carl Zimring's perceptive and positive reading of *Cities of Light and Heat*. I also want to thank Clay McShane for creating this forum whereby reviewers and authors enjoy the opportunity to extend their remarks. Zimring alerts readers to the prospect that my discussion of ecologies of technological knowledge remains unclear. I myself sought a way of making conceptual sense of something that all of us recognize—that at any moment, not each portion of the urban population shares equally in access to new technologies or in ideas about how to use those technologies. Let me be specific. By the late 1920s, fortunate residents of these cities of light and heat enjoyed rooms that were brightly lit, warm, and ventilated with a view toward removing germs, dust, and odors. Not far away stood homes that were cold and dark. Public schools and countless sales personnel regularly provided instruction in the advantages of these new appliances for bringing light and heat

into the home and office. Men and women understood the advantages of appliances for their gendered responsibilities to children and one another. Even more, political leaders at the state and local levels mandated uniform service at averaged rates—a system that privileged the well-off living on the urban periphery from the outset. Altogether, those ecologies of knowledge were composed of clusters of persons who at any moment possessed unequal degrees of access to these new systems—access determined by financial resources, attention of sales persons, number of years of school enrollment, perhaps by the type of gas and electric appliances installed in worksites, probably by ethnicity, and without doubt by gender. Yet the location of an ecology of technology, I found, was always in flux as each new appliance diffused in two directions—from the central business district outward and from the periphery inward. Thus, I wanted a concept that extended beyond Kenneth T. Jackson's stratified diffusion, which I found immensely suggestive but also somewhat rigid. I also sought a concept that offered greater clarity, sophistication, and nuance for time and place than the social-ecology metaphors of Chicago sociologists. In short, I sought a way of grounding technological systems in their social and political setting(s) (that were always in flux) and found ecologies of technological knowledge a useful concept for doing so.

Carl Zimring takes me to task for not extending my study of Kansas City and Denver into the postwar period. I am flattered that those earlier chapters raised and answered questions he finds germane. By the post-WWII period, systems of heat and light had been in place at the local and urban level for more than half a century. Rapid diffusion to participants in new-found prosperity charac-

terized gas and electric operations in these cities. The moment was at hand to capitalize on rising incomes and years of observing gas and electric appliances in schools, department stores, and sales presentations. Leaders of national gas and electric systems coalesced with leaders in other industries and in politics to boost productivity and produced equally regular increases in demand for new houses loaded with bright lights, gas-fired furnaces, and fabulous air conditioners. I proceeded to consideration of national themes, then, with a view toward assessing those temporary arrangements in the national political economy that fostered and stabilized events at the local and urban levels. As for those churches (and later synagogues) featuring air-conditioned sanctuaries, drinking water cooled to 50 degrees, and baptismal tanks heated to 85 degrees, what I found was a now-feminized process that extended from the 1920s into the postwar years aimed at achieving control of portions of the built environment from soon after birth to near death. Americans had launched a search for comfort, convenience, and cleanliness long before gas and electricity arrived on the scene. After WWII, those seeking still higher levels of comfort and convenience in their houses of worship had simply discovered a new outlet for that urge and a symbolically powerful setting in which to lodge it.

Again, my thanks to Carl Zimring for his cogent and positive remarks and to Clay McShane for creating this forum.

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