

BOOK REVIEWS

The Culture of Cleanliness

Chasing Dirt. The American Pursuit of Cleanliness. SUELLEN HOY. Oxford University Press, New York, 1995. xiv, 258 pp. + plates. \$25 or £17.99.

"Filthy" and "squalid" are words Americans today might think of as describing refugee camps or the slums of Third World cities. In the 19th century, however, the terms were applied to America and Americans. Their surroundings were polluted, their living quarters filthy, and their persons unclean. It is natural to wonder how and why America became a nation proud of its plumbing and devoted to personal hygiene. *Chasing Dirt* provides answers to these questions, showing how social movements, public health concerns, and business interests tried to rid the nation of dirt in all its public and personal manifestations, and to reshape American culture. Indeed, as Suellen Hoy subtly suggests, what unites Americans divided by gender, race, class, ethnicity, and region is their collective appreciation for cleanliness.

Hoy begins by tracing the development of urban sanitation in the 19th century. The first campaigns involved efforts to clean up the city in order to prevent recurrent cholera epidemics. Believing that disease was caused by deadly miasmas that sprang from rotting organic matter, sanitarians fought to remove filth from the streets. When epidemics abated, so too did the interest in urban sanitary order.

The Civil War ultimately prompted a more serious commitment to cleanliness. The well-publicized efforts of the Sanitary Commission, which inspected military camps and hospitals, succeeded in marshaling support for the idea of sanitation. In the closing decades of the 19th century, sanitation would become a reality, as Americans built sewers and water systems, embracing sanitarian principles even as they were being superseded by the newly articulated germ theory.

Where sanitary movements drew attention to public cleanliness, the germ theory focused concern on domestic and personal hygiene. This led, in turn, to what Hoy describes as an "assault on contagious diseases and infant mortality through formal and informal instruction in personal hygiene" (p. 108). Settlement house workers

and public health nurses taught immigrant women how to bathe their babies and keep their homes clean. In the growing African American ghettos of the urban North long-term residents gave newcomers the "soap-and-water message" (p. 117), while in the rural South crusaders targeted hookworm for eradication. The public schools also served as an important venue for public health lessons, with teachers offering toothbrush drills along with reading and writing and with students enduring sometimes humiliating inspections of their hands, necks,

faces, and hair. Together these efforts transformed society, as 20th-century Americans embraced the "culture of cleanliness."

The American way of cleanliness involved business as well as private and governmental initiatives. Hoy explores how some corporations encouraged hygiene among their workers and, more critically, how cleanliness began to be marketed to consumers. Recognizing that few readers are unfamiliar with the ways in which advertising celebrates and sells personal and domestic hygiene, she wisely keeps this portion of the book short and to the point.

A prominent theme in *Chasing Dirt* is the way women functioned as agents of cleanliness. As individuals they fought dirt in their homes, and Hoy graphically depicts the challenges of washday in homes lacking running water in the 19th century or electricity and washing machines in the 20th. As citizens, women campaigned for a safer environment. Hoy delineates how, for ex-



Top left, "A working woman alone near Tuskegee, Alabama, in 1902 demonstrated how difficult washing could be." Top right, "Jewish immigrants quickly became acquainted with the dirt-chasing Dutch lady who spoke to them from the pages of *Yiddishes Tageblatt*." Bottom left, "The students at the Tennessee Coal, Iron & Railroad Company school in Fairfield, Alabama (c. 1915), learned how to become better Americans by joining together in the fight against tooth decay." Bottom right, "By 1940, this Vermont farm woman, with Lux and Old Dutch at her sink, had added running water, electric light, and a washing machine to her kitchen." [From *Chasing Dirt*; first, second, and last photographs courtesy of Library of Congress]



Vignettes: The Hierarchy of Sciences

The change in the mode of scientific production, its loss of criticality, and its subjugation to the laws of commodity production, are features of the sciences most closely integrated with the reproduction of social and economic power. The physical sciences, above all physics itself, are at once the most arcane and the most deeply implicated in the capitalist system of domination. At the same time, the industrialized sciences more or less successfully exclude any more than small numbers of women. They also appear to be highly resistant to feminist reconceptualization; the success of feminist theory has lain in areas such as history, philosophy, sociology, and primatology—all characterized by little capital equipment per worker and by craft methods of production.

—Hilary Rose, in *STS Education: International Perspectives on Reform* (Joan Solomon and Glen Aikenhead, Eds.; Teachers College Press)

In the numerous conversations I have had with scientists about social constructivism, gravity is invariably brought forward as the great counterexample showing that science is not culturally constructed. A rock falls to earth regardless of the dominant language or ruling class. Yet even the pervasiveness of this example indicates that it is culturally encoded, for it is linked to a specific history in which Newton's formulation of the law of gravity was an epoch-making event. More subtly, the example is marked by a certain cultural position because it presupposes that mathematics and physics are the core sciences rather than, say, biology and ecology. Many scientists (especially physicists and mathematicians) will say as much explicitly if pressed. They regard physics as the archetypal physical science because, as Norbert Wiener put it, physics manages largely to escape the "messiness" of "tight couplings" between the observer and the observed. The same presuppositions that inform objectivism as a philosophical position also create a hierarchy of sciences that places physics and mathematics at the top, home economics and animal husbandry near the bottom.

—N. Katherine Hayles, in *Reinventing Nature? Responses to Postmodern Deconstruction* (Michael E. Soule and Gary Lease, Eds.; Island Press)

ample, Jane Addams became a garbage inspector for the city of Chicago, while fellow Hull House resident Alice Hamilton investigated the cause of a typhoid epidemic in the surrounding neighborhood.

A second theme is the political economy of cleanliness. Hoy makes clear that urban sanitation involved, most fundamentally, a willingness to collect taxes for public services such as sewer and water systems. She also acknowledges that educating women about the bathing and feeding of infants meant little if they lacked ready access to bath water and a means of purchasing healthy food and that campaigns against flies had little relevance for people living in crowded, filthy tenements. At the same time, it must be said that the book's treatment of the political and economic issues surrounding America's physical, intellectual, and cultural response to dirt is often hasty.

Hoy draws from recent histories of medicine, immigration, domestic life, public health, advertising, and women to weave a complex story of the transformation of a literally dirty nation into a clean one. Es-

chewing a statistical approach, she offers personal testimonies gleaned from diaries and other documents to make her points. We read graphic descriptions of the dirty bed linens, bedbugs, and other vermin encountered by 19th-century travelers, of tenement-house privies shared by early-20th-century immigrants, and of farm wives hauling water daily so they could scrub diapers in a metal tub and hang them on the line to dry.

The narrative is carefully balanced with case studies of leading historical figures. We meet George Waring, "the most conspicuous anti-contagionist, environmentalist and propagandist of the late nineteenth century" (p. 66), who built sewers in cities across America. And we are introduced to his disciple, Caroline Bartlett Crane, who tested the Waring model in Kalamazoo, Michigan, and became a nationally known "municipal housekeeper." Other prominent figures discussed include Booker T. Washington, Lillian Wald, and Walter Kohler—the plumbing manufacturer who offered his foreign-born workers courses in civics and hygiene.

The breadth of *Chasing Dirt* is both its

greatest strength and its most significant liability. Often the author seems to raise important subjects only to rush on to the next topic, public figure, or private comment. What is, we are left to wonder, the precise link between the emergence of an urban middle-class culture and a culture of cleanliness? To what degree is the American experience unique? Other industrial nations built sewers and embraced ideas of personal hygiene—did Americans chasing dirt simply go farther? go faster? or did they take a different path and, if so, why? While *Chasing Dirt* displays the virtuosity of the author as researcher, writer, and synthesizer, it also raises some profound and provocative questions that it leaves for others to pursue and answer. Nevertheless, Hoy has delivered on her promise to provide us with an introduction to the American pursuit of cleanliness. Readers will never look upon their surroundings or their personal hygiene habits in quite the same way.

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The Dynamo Problem

Lectures on Solar and Planetary Dynamos.

M. R. E. PROCTOR and A. D. GILBERT, Eds. Cambridge University Press, New York, 1995. xiv, 375 pp., illus. \$69.95 or £50; paper, \$29.95 or £19.95. From an institute, Cambridge, UK, Sept. 1992.

Solar and Planetary Dynamos. M. R. E. PROCTOR, P. C. MATTHEWS, and A. M. RUCKLIDGE, Eds. Cambridge University Press, New York, 1994. xii, 366 pp., illus. \$49.95 or £35. From an institute, Cambridge, UK, Sept. 1992.

Magnetic fields are essentially everywhere in the universe. By virtue of Ampère's law, they are almost always associated with electric currents. Since hardly any of the matter in the universe is superconducting and very little is ferromagnetic, these currents, if not maintained by energy conversion from other sources, would decay in times short compared to the lifetime of the aggregations of matter in which they reside. Aggregations of electrically conducting fluid that do work to maintain the currents and fields against this decay are called hydromagnetic dynamos. The fluid interiors of the Earth and major planets, as well as the sun, are the main examples of dynamos in our immediate environment. It is now known that many other stars have dynamo-driven magnetic fields, some