Oppositions

Siting Hazardous Waste Treatment Facilities. The NIMBY Syndrome. KENT E. PORTNEY. Auburn House, New York, 1991. xvi, 181 pp. $37.95.

Environmental Disputes. Community Involvement in Conflict Resolution. JAMES E. CROWFOOT and JULIA M. WONDOLLECK. Island Press, Washington, DC, 1991. xviii, 278 pp. $34.95; paper, $22.95.

No Safe Place. Toxic Waste, Leukemia, and Community Action. PHIL BROWN and EDWIN J. MIKKELSEN. University of California Press, Berkeley, 1990. xviii, 260 pp., illus. $24.95.

The last two decades have seen an emergence in the United States of a diversity of local conflicts about "environmental" hazards arising from various types of economic investment. These controversies have been fueled by two contradictory processes. On the one hand, increasing revelations of risk arising from the growing use of synthetic chemicals in industry and the resulting accumulations of "toxic wastes" have heightened our diffuse sensitivities from the 1960s about air and water pollution and loss of habitat and open space. At the same time, however, the reality and the risk of local economic decline, particularly with the export of U.S. capital and increasing competition from foreign producers, have led to widespread local efforts to attract new investment for community "development." These three studies of responses to environmental hazards delineate the resulting approach-avoidance dilemmas for local communities and their workers and residents.

Portney's book argues that NIMBY ("not in my back yard") responses are widespread reactions to efforts to site hazardous waste treatment facilities, which locally generate both development and risks. His data are responses to his local and national survey questions on general attitudes toward and projected reactions to hypothetical waste treatment siting efforts. From his analysis of these data, he predicts that efforts from the private sector or by governments to induce local community approval of toxic waste treatment facilities are not likely to succeed. Proposed policies of compensation, education, or negotiation, he predicts, are unlikely to overcome the NIMBY response. He finally suggests that only a policy of "risk substitution" in which waste treatment facilities are presented as alternatives to higher-risk preexisting productive facilities in the community has much chance of appealing to NIMBY advocates.

Whereas Portney's prediction is that local "environmentalism" will overwhelm local support for economic development, Crowfoot and Wondolleck's analysis of some recent environmental disputes documents efforts of community representatives to balance such competing objectives. Their report on "environmental dispute settlement" (EDS) includes case studies of seven local disputes, involving logging vs. recreation, agricultural production vs. soil conservation or wetland protection, oil drilling vs. "quiet recreation," channel dredging vs. bird sanctuary protection, and water use vs. aquifer protection. The process of EDS as they outline it requires voluntary participation by all groups of actors having a major stake in a project and its outcomes, with a common commitment to a process that includes the presence of a neutral experienced negotiator. Though the process may be either anticipatory or reactive, successes seem more frequent with respect to planned than with respect to already existing economic activities. EDS works best where there is greater flexibility on the part of all negotiating parties. It often relies heavily on scientific and technological experts, who are treated as neutral, informative agents. Crowfoot and Wondolleck note that EDS has many opponents, among whom are many radical sociopolitical theorists. These are groups that are often unwilling to compromise within the existing social system, with its economic and political inequalities, and are distrustful of scientific experts, whom they see as defending interests of elite groups.

Brown and Mikkelsen's book helps us understand the conditions that may underlie the somewhat conflicting findings of the other two works. This account by a sociologist (Brown) and a psychiatrist (Mikkelsen) of the recent history of conflicts in Woburn, Massachusetts, can be read as documenting that local economic interests dominate local "environmental" concerns. The authors trace social, political, and scientific conflicts in Woburn commencing with the 1979 assertion that leukemia and other local health problems appeared to result from the diffusion of toxic chemicals from several local factories into some drinking-water wells. Many readers might see this case as representing a success story for a local environmental group (FACE). Yet the title of the book suggests that in the United States today, even after this and other environmental mobilizations, there is "no safe place" where the risks of toxic wastes may be evaded. The authors note that there has been some compensation for victims in Woburn and some scientific and political affirmation

Vignettes: The Animal Connection

That parameloids are still referred to as bandicoots is indicative of a lack of public interest in, or affection for, these marsupials; indeed, "bandicoot" remains a derogatory term in the Australian vernacular.

—Ronald Strahan, in *Bandicoots and Bilbies* (J. H. Seeback *et al.*, Eds.; Surrey Beatty)

Landseer's imperious lions in London's Trafalgar Square are in a sense insulting to lions, because they suggest that lions are admirable in so far as they resemble the Duke of Wellington, but *only* in so far as they resemble the Duke of Wellington.

—Colin Tudge, in *Last Animals at the Zoo: How Mass Extinction Can Be Stopped* (Island Press)

The expression, "sweat like a pig," is especially inapt, for when it comes to sweating pigs are inept. A pig does sweat a little on the snout.

—Steven Vogel, in *Vital Circuits: On Pumps, Pipes, and the Workings of the Circulatory System* (Oxford University Press)

of their claims about the hazards. But they also document the human costs exacted by the permeability of bodies and family lives to the toxic wastes themselves, as well as the battle scars received in struggles with corporate and government officials from 1979 to the present. For example, this study notes the rage, the sense of powerlessness, and depression experienced by Woburn activists when confronting the self-interested corporate scientists working to protect industrial profits or the government scientists working to vindicate records of government "regulation" (which was often ineffectual if not actually collusive with the local plants). Even more painful, many of these activists, having already suffered illnesses and deaths of their children, were then attacked as "troublemakers" by neighbors who were workers at the polluting plants for threatening local livelihoods. It is for these reasons that I view *No Safe Place* as asserting the power of economic over environmental interests in local disputes.

Each of these three portraits represents a fragmentary view of a social and political system that has attachment to conflicting goals. Communities seek both to expand investment and employment and to protect local ecosystems from industrial withdrawals and additions. But what is available in the markets for local investment is a diversity of industries with "dirty" as well as clean outputs, albeit usually less dirty than the factories that polluted Woburn. Though wastes may be less extensive than in earlier production facilities, for example, modern synthetic chemicals may be far more toxic and less biodegradable than their earlier counterparts. Water and land may be required from the community's ecosystems, and the transportation of goods, of workers, and of wastes each has local consequences for residences, shopping areas, and parks. What are sensitized community groups to do? How should potential investors respond to local demands for both investment and protection of environmental amenities? And finally, how should local and regional government officials respond to these tensions?

These three works point to three underlying dimensions of local conflicts. The first is the type of hazard: human health hazards as distinguished from other environmental risks, that is, threats to the existing uses by citizens of local ecosystems. Local conflicts are most intense around issues of human health (especially those arising from existing production facilities). At the other end of this dimension, when issues have more to do with environmental preservation and resource conservation, citizens are more prepared to negotiate with some flexibility for a larger share of the benefits or a smaller share of the costs. The sort of dispute settlement outlined by Crowfoot and Wondolleck may be more acceptable for these issues. When the primary local concern is with avoiding risks of becoming a future Woburn or Love Canal, Portney's scenario of rigid NIMBY-type resistance is more likely to emerge. Interestingly, toxic waste treatment facilities *have* been sited in recent years, often under conditions that may accredit Portney's "risk substitution." Local residents accept a local toxic waste treatment facility rather than face the total decline of their local economy and community.

A second major dimension is the time horizon: local conflicts over existing facilities are different from those over proposed facilities. Respondents in Portney's studies could readily express NIMBY attitudes because, unlike the Woburn FACE group, they didn't have to fight against neighbors, local political officials, and government agency representatives struggling to cling to their roles and entitlements, along with owners and managers of the polluting factories. Likewise, Crowfoot and Wondolleck's EDS participants were screened through a variety of social, economic, and political sieves to arrive voluntarily at the negotiating table. They too had degrees of freedom, because they were concerned primarily with future options and not sunk social and personal investments that carry a social, economic, and political momentum. In Woburn, participants had to "fight rather than switch" because the human health costs had already been exacted and compensation and future protection were both needed. For other community conflicts studied, participants could switch rather than fight. In the cases other than Woburn, moreover, the participants could evade the conflicts by withdrawing from the local social system. This same pattern might extend to include prospective investors, future government regulators, and potential victims of hazardous wastes or other environmental risks. This capacity to switch rather than fight generally lowers the willingness of some or all participants in an environmental struggle to commit all their resources to the battle. For example, when firms can locate new facilities elsewhere, they may choose to do so after engaging in some limited (and cost-effective) local conflicts. Some citizens who have economic options may likewise move out of the area if the initial battle goes against them. In Woburn the affected families had no such freedoms, and working-class citizens often lacked economic resources to move away.

A third crucial dimension is the social and political role of scientists. Portney's respondents mistrusted scientific "experts." In contrast, EDS participants made heavy use of a diversity of somewhat qualified experts, who fulfilled the traditional role of neutral arbiter of fact. But in Woburn, citizens' complaints had been discredited by a coalescence of scientific as well as economic and political actors. On this basis, FACE and other local activists were hostile to scientific advisers to industry and government. Brown and Mikkelsen celebrate the Woburn form of "popular epidemiology" in reaction to this dismissal. Ironically, though, it was professional biostatisticians from the Harvard School of Public Health who became essential resources in organizing and certifying much of this "popular" activity of data collection and analysis. FACE and other Woburn groups thus had to confront both their rage at the industrial and government scientists and their dependence on the "good ones" at Harvard. The painful experiences of Woburn residents (and, earlier, of similar groups in Love Canal) with illnesses and then with the "scientific" denial of their claims have been widely disseminated by the national media. This may help explain why Portney's survey respondents mistrusted experts who reassured them about the safety of modern toxic waste treatment facilities.

Paradoxically, what these three interesting works least elucidate are the rigidities and flexibilities of the private sector, although they hint that investors' patterns are somewhat isomorphic with citizens' predilections.

ALLAN SCHNAIBERG
Department of Sociology, Northwestern University, Evanston, IL 60208

Cosmic Emanations

Beams and Jets in Astrophysics. P. A. HUGHES, Ed. Cambridge University Press, New York, 1991. xii, 583 pp., illus. $75; paper, $27.95. Cambridge Astrophysics Series.

The discovery of cosmic jets during the late 1970s and early '80s caught astronomers by surprise and initiated a major new area of study in astronomy. Jets produced in the nuclei of certain elliptical galaxies retain an extraordinary degree of collimation while crossing distances as large as a million light-years. At high resolution, we find that these jets are already well collimated within a few light-years of the galactic nucleus, where they are inferred to have speeds very close to the speed of light. At least one binary star system, SS 433, produces a pair of high-speed jets, and the production of slower jets seems to be a common aspect of star formation.

Beams and Jets in Astrophysics, comprising