Environmentalism and Equity

Distributional Conflicts in Environmental-Resource Policy. ALLAN SCHNAIBERG, NICHOLAS WATTS, and KLAUS ZIMMERMANN, Eds. St. Martin's, New York, 1986. xii, 455 pp., illus. $45. From a symposium, Berlin, F.R.G., March 1984.

Is the environment strictly a quality-of-life issue for upper-middle-class backpackers and gardeners? Do the poor, who suffer greater ill effects of environmental depredation in the workplace and at home, constitute a hidden cache of environmentalists? Will business people and workers form a coalition to eliminate environmental regulations that inhibit economic growth and take away jobs? Can environmental regulation benefit all members of society equally by protecting present and future generations from the consequences of past, present, and future depredations?

This book attempts to reconcile these conflicting questions by addressing issues of distribution and equity involved in environmental policy making in the United States and western Europe. The examination includes an economic and political analysis of the differential effects of environmental regulation, an evaluation of the meaning of public opinion data on environmental consciousness, and consideration of business, labor, state, and generational perspectives on environmental issues. A diversity of provocative models exist, but, as Schnaiberg notes, there are insufficient data to test them adequately. A useful follow-up to this volume would be a short, focused account of the available data sets and their lacunae and recommendations for remedying defects.

I can recommend this book to anyone interested in exposure to the "state of the art" of social science analysis of environmental policy. As an outcome of a conference sponsored by the Volkswagenwerk Foundation, this volume has many of the benefits (geographical and interdisciplinary diversity) and a few of the costs (repetition) of conference documents. A variety of social science points of view are represented, from economics, sociology, and political science. The political spectrum is more narrowly represented, from moderate to left-liberal. No outright Gaians or Reaganites were invited. The major findings, both expected and unexpected, are:

1) Despite significant differences in regulatory approach there is little difference in regulatory outcome among the United States, France, and Germany. The United States espouses strong principles in law that are whittled down in administrative and judicial practice. Legal requirements for elaborate technical procedures and the construction of large-scale data bases slow implementation. In Europe, on the other hand, relatively loose and informal administrative procedures operated by a technical cadre are strengthened in practice as a result of scientific evidence, often gained free-rider from U.S. environmental agency research and from local experience with disasters.

2) A new group of environmental policy theorists, emphasizing market mechanisms over traditional regulatory standards, gained ascendance in the discipline of economics in the '70s. Backed by the attack of sectors of the corporate world on environmental regulation, holders of this view gained influential positions in U.S. federal environmental agencies during the early '80s. Reformulating much of the policy debate in terms of markets and property rights, they put their theories into practice in the form of bubble concepts that allow entrepreneurs to buy and sell pollution rights.

3) Identifiable human-caused disaster, whether experienced at first or at second hand, is the most salient factor in developing environmental consciousness. The environmental movement has created broad political support for environmental regulation that transcends class differences by conceptualizing the effects of deleterious industrial processes on the environment, identifying the sources of human causation, and publicizing them through the mass media.

4) Contrary to the expectations of some social science researchers, environmental consciousness has not declined. Indeed, it is broadly spread across the social spectrum and comes close to constituting a consensus. The working class strongly supports environmental regulation despite expectations of opposition due to threat of job loss. Blacks are more likely than whites to support tougher environmental regulations.

5) U.S. industry's protestations about environmental add-ons to the cost of production often hide unwillingness to modernize plants and equipment. Environmental regulations requiring changes in production processes are sometimes used as an excuse to close plants that management intended to close for other reasons, for example, to

obtain lower labor costs in another location. There is little evidence to show that environmental regulation has significantly increased the cost of production. Indeed, there is evidence that technological innovation induced by environmental regulation has, by encouraging modernization of facilities, led to increased productivity and lower production costs.

6) On the whole, unions have supported environmental regulation despite contrary pressures. The United Auto Workers and the United Steelworkers were among the earliest institutional supporters of environmental regulation in the United States. As economic conditions declined in the steel and auto industries these unions came under increasing pressure to modify their pro-environmental stances, but they have only superficially reduced their support. While construction unions have opposed environmental regulation as inimical to large construction projects, unions such as the sheet metal workers, aware of the employment growth potential of renewable-energy technologies, have become strong environmentalists.

The most serious defect of the volume at hand is its limited discussion of the future of environmental policy. Apart from a plea for more comprehensive data sets, consideration of the future is largely relegated to a "how many angels can stand on the head of a pin" discussion of the number of future generations that should be divided into resources to come up with an equitable figure of allotments to each. Since this volume was prepared in the middle of the Reagan era, its focus on answering the distributional questions raised by the attack on environmental regulation was perhaps inevitable. However, as the post-Reagan era looms closer it can be expected that the environmental movement will shift from protecting past gains to undertake new initiatives. It is predictable that, just as the Reagan era focused attention on the negative distributional impacts of environmental policy, new movement initiatives will bring a corresponding shift in the attention of social science. Perhaps, in the course of this realignment, the contest between proponents of the market/growth and resource-constraint/regulatory approaches could also be transcended.

An analogy can be drawn to agricultural genetics, where agronomists came to regard the improvement of corn by selection as a temporary measure to be replaced by the more fundamental method of breeding disease-resistant corn. Likewise, the regulatory approach, with its orientation to modifying existing production processes, may eventually come to be seen as a temporary measure. It sensitized people to the environment until a more fundamental solution, environmentally benign production processes, could be implemented. Moreover, the development of renewable energy resources and a solar-hydrogen economy would make superfluous much of the assumption of finite resources from which many distribution issues arise. Then we could face the harder issues of socially based inequalities, freed from at least some resource constraints.

Designing environmental, worker, and consumer safety factors into production processes before they come on line would reduce regulatory costs and the need to mitigate ill effects later. Of course, governmental regulation is essential to determining the safety and environmental consequences of new production processes. Indeed, it is likely that regulation will become respectable again as deregulatory excesses that have lowered safety standards in such areas as vehicular and air transportation are remedied. But to inaugurate the next era of environmental policy, a shift from modifying existing production processes to creating alternative processes of production is called for.

At present, there are many legal and administrative penalties to deal with the consequences of harmful technologies but relatively few incentives to develop safe technologies other than the prospect of future torts and high jury awards. To reverse this direction, it would be helpful if industrial and R&D policy were more closely coordinated with environmental and resource policy. Thus, proposals for federally funded R&D to create new generic technologies to improve productivity and U.S. competitiveness in world markets should be combined with R&D initiatives to reduce costs of renewable energy production and to create environmentally benign industrial processes. For example, a specific area of confluence is materials research relevant to both semiconductor chips and photovoltaics. A conference of participants from high-tech firms, environmental groups, and university research centers from both environmental science and engineering could no doubt come up with a longer list of R&D initiatives that meet both criteria.

Concrete steps to resolve the contradiction between economic growth and environmentalism would also open up new political possibilities. If the interests supporting economic growth (for example, unions, most state and municipal governments, small business in general and high-tech firms in particular) could be aggregated together with the environmental and consumer movements, it would make a formidable coalition. The political clout of such a coalition would go far beyond the veto power that each grouping exercises separately. Such a coalition could set the environmental and industrial policy agenda in the post-Reagan era, regardless of the political party that captures the White House or Congress.

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Life of an Astrophysicist

My Daughter Beatrice. A Personal Memoir of Dr. Beatrice Tinsley, Astronomer. EDWARD HILL. American Physical Society, New York, 1986. xx, 118 pp., illus. Paper, $11.

The pioneering work of Beatrice Tinsley on galaxy evolution, her acute insights, and her enormously generous scientific interactions with a large number of colleagues and friends had a tremendous impact on astronomy. Her death in 1981 at the age of 40 left a gap that has not been filled, and she is keenly missed alike by those fortunate enough to have known her and by those who know her only through her work. This book is a biography of Tinsley written by her father, describing her childhood, education, and career, the last largely through passages from the copious flow of letters from Beatrice to her family. In addition, there is her obituary, written by her Yale colleagues Richard Larson and Linda Stryker, which describes many of Beatrice's scientific contributions, and an introduction by Sandra Faber, a close colleague and friend.

This book is fascinating and invaluable on many levels, the first purely as history. Hill's description of Beatrice's birth in the depths of World War II in industrial England, her early childhood, and her school and university days in New Zealand powerfully evokes a world now largely vanished and is at the same time a beautifully written and vividly remembered description of childhood and a portrait of an unusual and gifted family. Many years after she had left New Zealand for the United States, and when she was many years into her great series of cosmological investigations, Beatrice was still keeping up a steady stream of letters to her family, none of them scientists, describing her struggles and triumphs with abstruse scientific problems, her work with colleagues, her travels to meetings, and such day-to-day activities as dealing with university administrators and difficult graduate students. Hill is thus able, from a distance of many thousands of miles, to reconstruct Beatrice's activities in detail from the time she arrived in the United States to the time