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Review of: Dorothy J. Howell, *Scientific Literacy and Environmental Policy- The Missing Prerequisite for Sound Decision Making* (Quorum Books 1992)

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Dorothy J. Howell, *Scientific Literacy and Environmental Policy: The Missing Prerequisite for Sound Decision Making* (Quorum Books 1992). Acknowledgements, bibliography, epilogue, index, introduction. LC 91-36028; ISBN 0-89930-616-0. [181 pp. Cloth \$45.00. One Madison Ave., New York, NY 10010.]

The environmental policies of the 1990's cut across a multitude of disciplines, e.g., engineering, medicine, law, biotechnology, pharmacology, construction, planning and development. Scientific information, however, is often garbled in translation. Often, the scientific community speaks a language incomprehensible to policy makers. Misunderstanding, combined with the pressures of special interests, makes for unsound policy. In this book, Professor Howell insightfully explores this dilemma and suggests reform.

Howell's frustration with scientific illiteracy has grown through experience in the corporate world, government and academia. It is colored by her experience as a biologist, lawyer and environmental law professor — as well as a member of the public. Through *Scientific Literacy...*, Howell sets forth problems faced by a public "disenfranchised" by its incomprehension of scientific principles.

In her introduction, Howell defines scientific literacy as:¹

the abilities to read with comprehension news items on science and to apply scientific information to personal decisions on emerging policy based in science [and] the capacity for meaningful participation in policy formulation through recognition of relevant issues with an appreciation of the underlying science and technology, including a realistic view of their limitations.

In pursuit of that goal, Howell discusses the merger of the U.S. political system and the scientific community that she believes to date from the 1960's. In doing so, she describes public controversies such as those over pharmaceutical innovation and the effects of biotechnology on the environment.

Howell aptly begins each section with a relevant quotation from a scientist or philosopher, often echoing her own sentiments. Two themes resonate throughout *Scientific Literacy...* and speak to the

¹ At xv.

consequences of technical illiteracy — public frustration with scientific uncertainty and misgiving about whether science and technology can somehow “rescue us from the consequences of stupidity, arrogance, and ecological malfeasance.”²

Yet, Howell ends optimistically, finding the environmental movement to have sparked public interest in science education. She believes that this is evident in scientific literacy efforts by government, scientific institutions, law schools, the press and various volunteer programs.

Howell passionately vows to contribute to public reenfranchisement through efforts such as those represented by this book and ultimately concludes:³

We have the means to meet the promises of the scientific endeavor in the next century. We must prove wrong those who assert we lack the will.

Diane M. Albert[†]



² At 152 (quoting David W. Orr, *Ecological Literacy: Education for the Twenty-First Century*, *Holistic Educ. Rev.*, Fall 1989, at 48, 49).

³ At 172.

[†] Ms. Albert received her B.A. (Biology and German) from Colby College and M.S.L. (Environmental) at Vermont Law School. After seven years as an environmental regulator and consultant, she is a candidate for the J.D. at Franklin Pierce Law Center.