
Reviewed by David M. Chamberlain, A. Crosby Kennett Jr./Sr. High School, Conway, NH 03818

Readers of David Orr’s previous work will be delighted, though I suspect not surprised, to learn that he has written yet another landmark book. The Last Refuge: Patriotism, Politics, and the Environment in an Age of Terror is a timely collection of 13 essays, most of which appeared originally in the journal Conservation Biology. The essays contained in The Last Refuge are diverse, ranging from an examination of the environmental movement’s shortcomings to a scathing critique of Bjørn Lomborg’s controversial book, The Skeptical Environmentalist. If the essays are viewed as a whole, however, they constitute a coherent jeremiad against the prevailing political, economic, and cultural values of modern America.

Orr offers a number of perceptive observations in The Last Refuge, but perhaps none as urgent or vital as the contention that America’s national security is connected to its environmental policies. The first essay in this volume, “The Education of Power,” relates how Orr and a number of other prominent thinkers were invited by the Bush administration to offer suggestions on how to improve the administration’s environmental practices. To that end, Orr’s group produced a report entitled “Common Ground/ Common Future,” which, according to its authors, fell on deaf ears. This rebuff, however, proved to be profitable insofar as it inspired Orr to redouble his own efforts toward demonstrating that national security is contingent on the “wise management of common natural resources.”

This theme is developed further in two other essays. “The Events of 9/11: A View From the Margin” and “The Uses of Prophecy” both make a compelling argument that “no society that relies on distant sources of food, energy, and materials or heroic feats of technology can be secured indefinitely.” Orr, building on the thinking of Wendell Berry, argues that America would be more insulated from disruptions caused by terrorism and natural disasters if it transformed its complex consumer economy into a decentralized system built upon bioregionalism and small family farms.

Another salient point made by Orr is that the American political system and the nation’s venerated founding document, the US Constitution itself, make it difficult to achieve the sustainable society envisioned by environmentalists. The essay “Leverage” contends that both the federal system, which divides power between the national and state governments, and the separation of powers doctrine, which splits the federal government into three coequal branches, have prevented America from implementing a comprehensive national environmental policy. While Orr is correct, I think, to ascribe many of America’s environmental problems to the byzantine character of the US government, he does not seem to fully appreciate how effective this system has been in preventing the consolidation of political power into the hands of one interest or party. I fear that Orr’s criticism of the pillars of the American political system will make him vulnerable to charges that he is opening the door to a form of ecological authoritarianism.

Orr is at his best when he sees that American environmentalism is compatible with America’s revolutionary political tradition. Although his essay “The Constitution of Nature” is, in large part, a rumination on the US Constitution’s failure to protect the environment, he also suggests that a Constitutional amendment “guaranteeing the right to a healthy environment” offers America a new way forward. This line of argumentation has much in common with Roderick Nash’s belief that America’s language of natural rights could be used as a vehicle to broaden our field of ethics to include other species and the environment itself. In light of Orr’s repeated assertions that the far right has co-opted America’s political vocabulary, he should, perhaps, devote more ink to exploring how America’s revolutionary language of equality could be used by the environmental movement as a persuasive rhetorical tool.

David Orr would, I believe, be disheartened if this book were to be read and mulled over only by environmental specialists, for its message is intended to rouse the general public into a more active and informed participation in the political life of their nation. Orr challenges all Americans to reflect seriously on the meaning of patriotism and the obligations of citizenship. America would be wise to heed Orr’s warning that a republic cannot long survive if patriotism and citizenship are equated with unbridled consumerism rather than a concern for posterity and a love of the land that sustains us. Environmental practitioners will find Orr’s work to be particularly valuable. He reminds all of us involved in environmental work that the changes that need to be made in America will not be the result of
ideological squabbling within the movement or of book reviews published in obscure journals, but through an unpretentious, informed, and passionate dialogue with our fellow citizens. The Last Refuge: Patriotism, Politics, and the Environment in an Age of Terror is one of the most succinct and trenchant critiques of American culture written since September 11th and I urge readers of this journal to ensure that it reaches a broad public audience.

Note


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Invasive Species consists of 18 chapters contributed by different authors, all directed at an overview of “vectors” that transport species to new regions in which the organisms are not indigenous. The intent is to provide an overview of the transnational transfers of such species—crop pests, pets, ornamental plants, potential invaders of ecosystems, pathogens, others—with a view to improving the efficacy of policy and management strategies for reducing said transfers. The book is only partially successful at this.

Nine chapters describing “vectors” (mechanisms of transfer: cargo containers, logs, mud on vehicles, etc.) introduce the reader to movements of marine and terrestrial plants, terrestrial and freshwater mollusks, insects, freshwater vertebrates, fungi, and terrestrial vertebrates, with attention to the human activities that move these species. Eight chapters address strategies adopted thus far to stem the rising tide of non-indigenous species (NIS) introductions, with emphasis on Australia, New Zealand, South Africa, and the United States. Three additional chapters explore the role of risk assessment as a tool for improving management of NISs, and a final chapter provides an overview and recommendations. Thus, one can learn about a lot of different species, case histories, and defense strategies in a lot of countries from this work.

The chapters are worth reading as separate essays, for various reasons. First is for the book’s stated objectives. For example, Robert Colautti and colleagues present a superb analysis of movements of freshwater organisms into and about the Laurentian Great Lakes by shipping. With surprises, unexpected directions of NIS movement, and an anti-intuitive suggestion for reducing newly-arrived NIS survival in the Great Lakes, this chapter meets Invasive Species’ objectives precisely. Six other chapters distributed throughout the book do likewise. Second, whereas some chapters don’t address the objectives as directly, they provide interesting, current information on policies, NIS invasion case histories, detailed data on selected species, and national attitudes of interest to NIS workers. Third, most chapters provide valuable, current references. One strength of the work is that many of these references are available online, bringing global literature within easy reach.

Certain aspects of Invasive Species are incomplete or off target. The book could benefit from a species index and a chapter that describes the international context—the United Nations, the World Trade Organization, other agencies, and any agreements—by which national and bilateral strategies are constrained. National laws and agencies, familiar to the authors, are likely to be unfamiliar to many readers and, where referenced in passing, can be bewildering. An occasional illustration of an NIS could both inform and lighten what is sometimes a tedious read. Sometimes specific examples (e.g., of a checklist for assessing organism risk) would be more instructive than a general discussion. Synthesis is, unfortunately, left up to the reader, and a few chapters are perfunctory, at best.

The best of Invasive Species is stimulating, enlightening stuff. NIS workers are caught in a rock/hard place between a drive for more and ever more “free” global trade and the vast undercurrent of truly destructive NISs that would ride that unimpeded stream. We learn that fully half of all vascular plant species growing wild in New Zealand are introduced, and that eight times that many species now lurk in that nation’s farms and gardens, waiting to escape. Joseph Cavey’s excellent chapter informs us of selected US efforts to intercept NISs while accommodating trade, and highlights the need for wealthy nations to assist poorer ones with the taxonomic support, digital imaging, overnight mail express, and training essential to speedy inspections for plant pests. And some of the strategies described, or pressures on or by shippers, really seem to work. How
to expand the list? That is the challenge; this book provokes you to think about it. Overall? This reviewer gives *Invasive Species* 3 stars out of a possible 5.


Reviewed by Robert John Klancko, Klancko and Klancko LLC, 2 Orchard Rd., Woodbridge, CT 06525-1122

In many cases, the “clean water” focus has been from the United States Environmental Protection Agency (USEPA) water discharge perspective and on ensuring that the water emanating from various point sources is “clean.” Such a perspective is, of course, necessary, and water that emanates from such sources into an ecosystem does need to be clean in order to mitigate any potential negative ecosystem impacts. For the general populace, however, the most important facet of water regulation and technology is always eclipsed by the USEPA initiative. This equally important facet is that of drinking water.

Frederick Pontius has assembled a cadre of experts—some 26 in number—to provide encyclopedic knowledge about drinking water. In 24 chapters and 10 appendices, a plethora of information, facts, and contacts is provided to the professional.

The text begins with six pages of acronyms, followed by chapters such as “Water System Security,” “Protecting Sensitive Subpopulations,” and “Achieving Sustainable Water Systems,” to name a few. Of particular interest and novelty are two of the appendices—“How Laws are Made” and “Enactment of a Law.” These are unexpected subjects, but ones of critical importance, because many times this perspective is lost and the environmental professional does not possess working knowledge regarding these subjects. This is one indication of how thorough the editor has been in endeavoring to make this volume as beneficial as possible to the professional. Another useful feature is that every subchapter is numbered for easy and ready reference.

The text is embellished with numerous charts, tables, and diagrams. For example, Figure 9.1, titled “Judicial Review Process,” is a very succinct and informative flowchart showing what can happen once a “Final Rule is promulgated by the Federal EPA and is published in the Federal Register.” This figure is a helpful guide for those unfamiliar with the process and those who may wish to participate in it. Table 3.6, “Etiology of Waterborne Outbreaks by Type of Drinking Water Systems, 1971–2000,” is also very informative. For example, although the etiologic agent *Cryptosporidium* accounts for 3.6% of the community water system outbreaks (the same percentage as for non-typhoid *Salmonella*), it represents 81% of the illnesses, whereas the non-typhoid *Salmonella* accounts for only 0.6%. Information such as this is presented in formats that effectively aid the reader and researcher.

Chapters 8, 9, and 10 are of particular interest and are crafted very well. These chapters cover the topics “Application of Risk Assessments in Crafting Drinking Water Regulations,” “Sound Science and Drinking Water Regulation,” and “Benefit-Cost Analysis and Drinking Water Regulation.” These are valuable subjects because there needs to be sound rationale, based on reproducible scientific fact, that creates regulations. For example, the USEPA recently said that Fairfield County in Connecticut was not meeting air quality goals and consequently, emissions reductions would be necessary. The hard fact is that the air quality in that region is a function of production in New York being transported over the state line. Therefore, rational science would first determine which out-of-state emissions reductions need to be made instead of further ratcheting down in-state emissions, which apparently are not the major causes of non-compliance.

In addressing risk, the chapter “Protecting Sensitive Subpopulations” is interesting and useful. Discussed in this chapter are factors such as AIDS, transplantation, chemotherapy, and immunosuppressive therapy, to name a few. Usually the regulatory and technological foci are on healthy mature persons, and risks and tolerances are based on this type of person; however, there are subpopulations that represent a substantial number of clients who need to be considered in the planning and execution processes. This chapter brings critical information regarding these issues into focus and provides a meaningful perspective.

To those who wrestle with drinking water issues on a daily basis, Appendix A is a constant resource. This appendix contains a “Summary of Drinking Water Standards and Health Advisories.” For example, Table A.1 contains the maximum contaminant level goal, the maximum contaminant level, potential health effects from exposure to the maximum contaminant level, and common sources of contamination in drinking water. For example, the maximum contaminant level goal for mercury inorganic is listed as 0.002 mg/L, as is the maximum contaminant
level; it produces kidney damage and results from the “erosion of natural deposits; discharge from refineries and factories . . . ,” etc. An interesting feature in Table A.2, “Drinking Water Standards and Health Advisories (Summer 2002),” is that not only are the standards for a plethora of materials and their CAS numbers provided, but under the “Health Advisories” column, information is listed regarding 1-day and 10-day exposures for a 10-kg child. These data can then be used to extrapolate critical impacts on sensitive subpopulations.

This tome is definitely a “one-stop shopping” compendium of information. Standards setting, treatment methodologies, regulations, system security, and operator certification: it is all here, and provided in a clear and precise manner. For the drinking water professional and even the general environmental professional, this is a valuable and useful resource. Many chapters have across-the-board applicability to the various environmental disciplines—for example, security, intellectual property laws, environmental justice, and cost-benefit analysis. This is another valuable addition to the environmental professional’s library of critical references.


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Whether for remediation, evaluation, design, or regulation, the need for quality information is essential. The two most common questions asked by environmental design and regulatory professionals are, What is the degree of contamination? and What contaminants are present? The actions that must be taken are based on the resulting answers, and quality laboratories are sought to provide accurate and reproducible analyses. The fact usually missed is that the data provided are functions of the quality of samples taken, and unfortunately the weakest link in the system is many times the lack of a quality sample. The quality of a sample can be affected, for example, by where it was taken, how it was taken, how it was preserved, and/or how it was transported.

Although this book focuses on “field sampling,” emphasizing the sampling of contaminated soils, much of the information regarding pre-sampling, sampling plans, sample preservation, and “Traps, Mistakes, and Errors” (Chapter 11) can be applied to air, water, and industrial hygiene sampling as well. Chapter 11, which may be considered all too brief, is the key to proper and adequate sampling protocols and techniques. Many times an erroneous value is not due to analysis error, but to variables that creep in during sampling and transportation. If the sampling technique is inappropriate for the condition being evaluated, if the sample is not preserved properly, if the sample is delivered to the laboratory beyond the allowable time window, or if the sample is cross-contaminated, then the data derived can be flawed and lead to erroneous conclusions.

The authors have tried, in 10 chapters, to provide the professional with information they believe is critical to ensure that sampling is valid and appropriate. In their preface, the authors state,

The tendency of many investigators is to go to a contaminated field and immediately start taking samples; however, this approach is wasteful of natural resources. Making the best sampling plan and using it saves time, limits human exposure to toxic situations and conserves chemicals and instrumentation. Even though it may initially seem time-consuming and expensive, in the long run a good pre-sampling and sampling plan saves money.

This statement covers the intent of the book very well. In fact, one of the most important concepts, and one that forms the basis for Chapter 4, is the limiting of human exposures (safety). This is a factor that is many times overlooked, with the sampler becoming exposed to excessive concentrations of a particular agent.

This volume is a good introduction to the science of field sampling. It is not, however, the ultimate reference on the subject. It contains the basic information that an introductory course in the subject would require and is an excellent reference for the neophyte. The questions and references at the end of each chapter enable it to be a very effective teaching tool. What would increase its usefulness would be a series of checklists regarding equipment, supplies, techniques, preservation, storage, etc. The use of checklists enables the sampler to ensure that the critical variables are considered and that the correct methods and procedures are employed. For example, even though sample “chain of custody” and “field sampling” forms are shown, a recommended label diagram would be helpful and would provide the user a ready format to employ. Such critical information would embellish the text and increase its value.

Of particular interest are the chapters “Modeling” (7) and “Sample Transport and Storage” (8). Modeling is becoming a very important tool. Many times a plume of contami-
nation is encountered and the plume is heading off site. As a consequence, it is important to be able to predict the path and the effect of disruptions, such as remediation efforts. On the other hand, once a sample is taken, it is important to properly preserve and transport it so that an accurate measurement can be obtained in the laboratory. Many times cross-contamination can occur and it becomes critical to ensure the sample's integrity. Both chapters do a good job of addressing these two issues. Unfortunately, they are not as detailed as many professionals may require. They are sufficient to provide the basic knowledge required to understand the methodologies that need to be employed.

Some of the information provided may be misleading and is in need of better definition. For example, in the Inorganic Liquids section in Table 4.4, “Sources of Personnel Contamination,” the most common inorganic liquid is mercury. This may be misleading, because mercury (an element, and the only metallic element liquid at room temperature) is not what many would consider an “inorganic liquid” per se. If compared to the organic liquid definition that precedes it and the inorganic liquids and solutions definitions that follow it, the term “inorganic liquid” implies a different definition. Perhaps it would have been more effective if this table were reworked and referred to possible materials in the environment versus materials used to sample the environment. For example, some sample containers may contain an acid. The organic liquids definition could then be “carbon-based liquids that may be acidic or flammable, may vaporize, or may be absorbed through the skin, normally polar substances. These may be toxic or explosive and may act as solvents,” whereas “inorganic liquids may be solutions, acids, or bases, many of which are inherently ionic and can react with various substances (organic or inorganic) In high concentrations they may react vigorously and produce toxic gases or even explosions.” Definitions such as these would give a better perspective and the metallic mercury could be listed as a special precautionary item.

A major strength is the number of photos, charts, and tables that illustrate the authors’ words and provide clear and precise information transfers. A weakness is the appendices. There are only two of them, one on acronyms and the other on sources of equipment. A sources-of-equipment list can quickly become outdated and it would have been more helpful if an equipment list, along with applications and specifications, were provided instead. Additionally, information regarding detection limits, soil characteristics, volatilization rates, regulatory criteria, etc., would have made the book a more useful field handbook, which it has the potential of becoming in future editions.


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The United Nations Environmental Programme (UNEP) held its 22nd Governing Council in early 2003 and decided at that meeting to prepare an annual Global Environmental Outlook statement. The statement’s purpose is to “highlight significant environmental events and achievements during the year and raise awareness of emerging issues from scientific research and other sources,” according to Klaus Topfer, the Executive Director of UNEP. This slim yet useful *Yearbook* is the Program’s response to that decision. Its primary goal is to make new environmental information accessible in a timely fashion and bridge gaps between environmental science and policy. After an explanatory preface, UNEP sets forth a global overview followed by a series of chapters that are geographically focused.

The global situation is encapsulated in the first chapter by sections on extreme weather events, biosafety, and the international environmental agenda. In the case of extreme weather, the rates of decline of polar ice caps and greening of the biosphere highlight the fact that warming is upon us; there is no debate among the scientific community. The costs of disaster are described in a subsection that explores insured losses in, among other places, the United States. Biosafety is considered in a section that explores the Cartagena Protocol and the differences between the European Union (EU) and the United States on what constitutes safety and what can or should be traded. A number of unresolved issues remain, but an agenda is moving forward. Most importantly, the last section deals with the international environmental agenda in a post-WSSD world (WSSD is the 2002 World Summit on Sustainable Development). The section highlights many new agreements in force and synergies among nonprofit, corporate, and governmental sectors that are emerging internationally and regionally. Particular challenges are daunting, but the fact that so many issues are now perceived as global and requiring global action is a cause for optimism.

The next eight chapters are brief synopses of different regions of the world, beginning with Africa. Key factors here are the high rates of urbanization, critical water shortages, environmental security, and the HIV/AIDS pandemic.
Challenges for the future are perhaps most perplexing on the continent of our evolution, but strides have also been made in providing fresh water and expanding parks and reserves in regions with high biodiversity. The next chapter considers Asia and the Pacific. The Asian continent, which contains over half of the global population, has also made the greatest strides in industrialization and higher standards of living. This has come at enormous environmental cost, however, and land degradation, air quality, and biodiversity are considered. The following overview is of Europe, the first region to industrialize and the one with the highest population densities in the developed world. While major global issues continue to affect Europe (e.g., extreme weather and overfishing), much environmental progress is evident, as is a willingness to work transnationally—more so than in any other region.

In many ways, Latin America and the Caribbean, the subjects of the next overview, are in better condition than other developing regions, but rates of environmental and economic decline are perhaps more pronounced. While, for example, Amazonian forest still covers over 80% of the basin, the extent of active deforestation remains high and burning has increased. Because of economic crises in some of the region’s wealthier countries (e.g., Argentina), the future is very uncertain. The future for North America is mixed from another standpoint. The US and Canada have been considered global leaders in environmental protection for so long that this is almost assumed; however, recent trends are equivocal. While consumption of ozone-depleting chemicals is near zero, per capita oil consumption remains the world’s highest. On a positive note, Canada and the US have issued joint sustainability reports, and many trends are improving; for instance, Canada has finally adopted species protection measures similar to the US Endangered Species Act.

West Asia is considered in the subsequent overview and the situation is depicted as generally, but not uniformly, grim. The draining of Mesopotamian marshlands by a dictator—and the war to remove that dictator—are endemic to a region with no security and in which security concerns dominate. The region has had extreme events, such as floods in its deserts and major fires in its forests. Water shortages are also systemic.

The Polar Region overview follows, with its massive recent melting and the Austral ozone hole that is not expected to decline for several decades. Climate change and airborne pollutants from afar are among its future challenges. The ninth chapter and last overview is dedicated to the problems of small island developing states, which have the highest rates of biodiversity endangerment and are affected by near-shore fishery declines. They are also most prone to sea level rises.

The tenth chapter in the Yearbook provides a feature focus on fresh water worldwide. It highlights the land use, population, and other use issues that both sustain modern life and lead to environmental degradation. Many parts of the world are critically short of water for human consumption, and many near-shore marine systems are deteriorating due to freshwater use in urban and agricultural settings upstream. Yet this chapter offers hope for the future in the form of integrated water resource management strategies and new technologies. Chapter 11 considers two broad, emerging new challenges that are affecting many societies, the nitrogen cascade and overfishing, and provides insights into potential solutions in both cases. The fact that these are now considered global problems is perhaps some cause for optimism, but they are particularly difficult issues to solve given the nature of their externalities.

The GEO Yearbook finishes with a chapter on global indicators. Here and throughout the volume, the color graphics are excellent for presenting major issues by region and worldwide in a brief, understandable fashion, and the boxes dedicated to important topics are also very informative. This volume is meant to educate a wide public and will be of use to policy makers who work for national and international agencies and to academics who teach environmental science and policy. For those working more locally, the figures alone can be most useful for informing constituencies about the nature of local problems on a broader scale. For those needing detailed analyses of particular issues, this volume is limited by its size and global scope, but it provides relevant references throughout.


The title of this textbook, *Environmental Impact Assessment*, belies the complexity and sophistication of its contents. David Lawrence has produced a monumental work...
outlining Environmental Impact Assessment (EIA) as it is practiced globally. The global practice of EIA was inspired in large part by the American practice of environmental impact analysis conducted in accordance with the National Environmental Policy Act (NEPA) of 1969. This practice is not synonymous with NEPA practice in America, which makes this work especially important for American-trained NEPA specialists working outside the United States.

Lawrence has done a commendable job of describing global EIA, a process complicated by the fact that EIA practice varies within a nation, between nations, and between global organizations. Because of this variance, the author has chosen to provide a generalized EIA approach backed up with scenarios from various countries to illustrate the important concepts. Numerous flowchart-style figures and detailed tables complement the text; in many cases, the figures and tables are very complex, but this is due to the complexity of the subject matter itself. Each chapter concludes with a series of checklist questions, a device that allows the reader to test his or her understanding of the material. Throughout the chapters, the author attempts to make practical solutions clear to the reader. Finally, the lavish use of attribution within the text allows serious readers to learn more about nearly every major statement made in the book. While "one size never fits all," the author has done a commendable job of creating a work that should meet the needs of advanced EIA practitioners and students of global EIA practice.

The author has been completing EIA for nearly three decades. His expertise in the field is demonstrated in part by having two of his instructional papers and a third by his firm (Lawrence Environmental) published on the World Wide Web by the Canadian Environmental Assessment Agency. These papers on the topics of multi-jurisdictional environmental assessments, trends in environmental assessment, and significance in environmental assessment provide useful Canada-specific supplemental material for the readers of this textbook. Interestingly, these three papers are not included in the references section of the textbook. The subtitle of this book is Practical Solutions to Recurrent Problems. Although many problems within EIA are recurrent, it is not clear that the author’s solutions are always necessarily practical. As stated on page xii of the Preface, the author sought to create a book “intended to help EIA participants (regulators, managers, EIA specialists, other study team specialists, nongovernmental organizations) and observers (commentators, instructors, students) to contribute jointly to more effective EIA processes.” Unfortunately, the complexity of the subject matter renders the practicality goals very difficult to attain.

In some cases, the use of this book could ultimately be counterproductive, because it could lead to unrealistic expectations among both participants and observers. For example, both participants and observers can lose sight of the fact that not all projects require the same level of rigorous analysis. A highly detailed level of analysis should be reserved for major projects that have the potential for significant impacts upon the environment. Unrealistic expectations on the level of analysis required for the more mundane projects can lead to the project-killing problems of “analysis paralysis” and “scope creep.” In the former, decision makers or regulators continue to defer a decision or regulatory approval until more information is known. This desire for additional information, which may not be terribly relevant for a particular project, can then lead to scope creep. Scope creep is an all-too-common NEPA problem that simultaneously drives up the overall cost of EIA while lengthening the project schedule because increasingly detailed information is sought before a decision is made. As more information is provided, supplemental questions are then asked, further driving the analysis paralysis/ scope creep cycle, which leads to increasingly irrelevant information at the cost of both schedule and budget.

This reviewer found the textbook to be a useful introduction to the global practice of EIA. The book is jargon-laden and not written clearly and concisely, but more clarity in the text may not be possible given the subject matter. The lack of a glossary or list of acronyms is especially apparent given the number of acronyms found in the text. The figures and tables are thorough and useful, although many are also very complex. As mentioned above, this may have a lot to do with the complexity of the subject matter. The book contains many examples and scenarios that reinforce the learning goals set by the author. This book is not recommended for the casual or novice reader in this subject area. The book would be especially useful as a textbook for an American school's graduate-level course on EIA principles, which could be offered as a follow-up course to NEPA analysis. This type of course could provide useful training for both foreign and American planning students who someday hope to work outside the United States. I also highly recommend the book for American-trained NEPA practitioners desiring a thorough contextual understanding of the global practice of EIA. The book's primary readers are likely to be from that group of environmental professionals already well versed in NEPA who
seek to either learn about or teach a global view of their profession. Recommended readers include those described as "NEPA geeks" by Horst Grenczmiel, the Associate Director for NEPA Oversight for the Council on Environmental Quality, at the 2003 convention of the National Association of Environmental Professionals. Global readership could include practitioners of EIA wishing to learn how professionals in other countries or regions are solving the many recurrent EIA problems in a variety of practical ways.


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In *Community, Democracy, and the Environment*, Jane A. Grant advocates for a strong version of sustainable development, which strives for structural changes to current economic, political, and social institutions, with the underlying assumption that increased community engagement will lead to more sustainable outcomes (Humphrey, Lewis, and Buttel, 2002). In this context, Grant searches for a social/political model that will foster deliberation on common interests, or the development of a civil ethos that will serve as a guide to more sustainable policies and goals at the local, national, and international levels. *Community, Democracy, and the Environment* outlines how the civil and political spheres in America have become separated in modern society and how the concept of sustainable development may reunite these spheres, at the same time allowing discussion about two competing values—economic growth and environmental protection. For instance, Grant writes: "The usefulness of sustainable development as a mechanism to guide both growth and environmental protection in the following decades will depend on the actual agreements worked out in its name" (p. 13).

In Chapter 2, Grant suggests a model for deliberative processes where a diverse group of citizens meets face to face to deliberate or discuss all possible options with the goal of reaching a common ground for guiding public policy. Subsequent chapters examine different environmental issues and how deliberative processes might promote public policy that results in sounder ecological outcomes. Chapter 3 details a local environmental issue: Grant traces how the location and expansion of a waste site resulted in conflict among two cities and the larger county as well as the emergence of local public opposition groups. After many years of public hearings, court battles, and regulation changes, a state-imposed deliberative process comprising industry, state and local government appointees, scientists, and the public resulted in the denial of an application to expand the waste site. The lesson learned was that a deliberative process permitted multiple voices to be heard and provided decision makers with more information on which to guide public policy.

Chapter 4 provides a brief overview of national environmental and energy policies in the United States and how enforcement and policies have changed with each presidential administration. It also examines these policies in the context of the environmental movement and alternative strategies. Chapter 5 concentrates on the international issue of global climate change, with Grant focusing primarily on President George W. Bush's response to global climate change, particularly his failings to acknowledge the scientific evidence and to ratify international agreements like the Kyoto Protocol. In a brief discussion of how deliberative processes might help guide national and international policies, Grant argues that citizen deliberations on environmental issues might be used to influence Congress, state governors, and the President. As she states, "The beginning of discussion, participation, and deliberation on these issues would provide the groundwork, hopefully, for our international involvement in these issues, as well" (p. 104). The final chapter attempts to integrate deliberative democracy with environmental issues as the basis for making sound policy decisions.

While *Community, Democracy, and the Environment* does a good job of presenting competing values and interests in environmental debates and poses questions worthy of attention, the brief synopsis of issues and the lack of analysis in the arguments hinder the book’s effectiveness. By relying solely on the deliberative process developed in the local hazardous waste example as a model for deliberation on environmental issues, Grant fails to acknowledge other mechanisms for promoting deliberative processes. Because of these omissions, the book fails to provide a convincing argument that deliberative democracy and citizen participation can be applied to national and international policies. For example, there are at least two national nonprofit organizations, the National Issues Forums and the National Coalition for Dialogue and Deliberation, that are engaged in promoting and holding forums based on deliberative democracy principles.
More problematic is the lack of discussion about whether the current system of political decision making is broken or requires reform. *Community, Democracy, and the Environment* attempts to make the claim that deliberative democracy practices will result in more ecologically sound policies; however, with the exception of the hazardous waste site, Grant fails to provide concrete examples. While Grant acknowledges that “We need to discuss, participate in, and deliberate with each other over environmental policy directions and goals” (p. 105), the book fails to provide a well-reasoned and convincing argument for this case. Polls continually indicate that the environment is not the top priority for Americans. Thus, it is quite possible that citizens may deliberate and suggest weaker environmental policies. Grant also fails to adequately address the problem of participation among under-represented groups such as minorities, the less educated, and women. A discussion of the interrelationship between social justice and environmental issues would have proved fruitful in this endeavor. A final criticism is that the book is more like a series of papers rather than an integrated whole. The local issue, for example, is not related to the national and international issues.

If one is looking for an overview on issues of environmental policy and deliberative democracy, this book is a worthy supplement for creating discussion. If one is looking for a more thorough argument and discussion of all aspects of sustainable development and “strong” democracy, however, there are better sources.

### Reference


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Our relationship with our environment has never been more in question. Current analysis on such subjects as global warming, the prevalence of pesticides in the environment, and the current condition of water quality makes Theodore Roszak’s work seem essential as well as urgent. This is not a book to be skimmed. In fact, it cannot be skimmed. It is a deep psychoanalysis of the person/environment interface and what that relationship may mean to future generations. It is a book to be read and re-read. The ideal approach would be to read 20 to 30 pages at a time and then just think about it for a few days. Attending to our planet requires one to come to terms with personal philosophy and individual, as well as group thought and behavior.

As Dr. Roszak unfolds his analysis and builds theory on how we came to this place and why we have been unable to maintain a symbiotic relationship with Mother Earth, he addresses such issues as spirituality, femininity, and the arrogance of those who assume power. Not only does he deal with human foibles, he also deals with what we have missed by not embracing the reality of *Gaia*. I was reminded of a profound experience I had with a class many years ago. A series of nature images was held on a huge screen for about five minutes each as Vivaldi and Bach played in the background. No one spoke; no one tried to point out details or convince anyone in the room of anything. The mere exposure to such beauty changed everyone, at least for a while. This book explores that beauty and addresses the confusion in the human spirit over our beginnings.

I am also reminded of a film called *Mind Walk*, where one of the main characters refers to the “interconnectedness” of everything. She describes a tree according to its contributions to the environment, instead of simply describing its image. Dr. Roszak addresses environmental systems in Chapter 5 as he attempts to bring into the reader’s awareness the almost incomprehensible complexity of Mother Earth, going so far as to share hymns and poetry from cultures that traditionally have lived closer to the land. He uses many forms to try to highlight the mistaken mechanistic direction that our industrialized society has taken. He attempts also to create an understanding of the many levels that affect nature as a result of the complex human presence. One particularly satisfying representation of the human being is presented as a figure showing the physical levels, the chemical levels, the biological levels, and the social levels of the human condition. When one thinks about this complexity within the complexity of nature, is it any wonder that we have made some awkward and (in some cases) tragically wrong decisions?

Unfortunately, it occurred to me as I worked my way through this book that it was not easy reading, nor is it a book that will be completed by many without great commitment and
dedication. It would be enormously helpful if one had had at least a few courses in psychology, at least one survey course in philosophy, and several courses in the environmental sciences. Dr. Roszak addresses the issue of systems study, as opposed to specific study. As most of us progress through the system of higher education, we focus on smaller and smaller components of the universe so that we can become “experts” on something. This tragedy of education can be highlighted as a cause of much of our decoupling, not only with nature but also with one another. In Chapter 6, Dr. Roszak refers to Heinz Pagels, who has developed the concept of “causally decoupling,” where levels of study are separated in order to master specifics. Although scholars may realize there are other essential elements in their fields of study, they may not spend much time or effort trying to tie those levels together into a system; in other words, reductionism may be part of the problem.

Dr. Roszak relates ecology, especially deep ecology, to the problems of humans, both spiritually and historically. He is well versed in the works of Freud and Reich and makes a case for the value of Jung’s work. “Of all the theoretical apparatus we inherit from Mainstream modern psychology, Jung’s often elusive and always controversial notion of a collective unconscious may prove to be the most serviceable in the creation of an ecopsychology,” states Roszak. What we have here is a concise, detailed look at three main areas of scholarship over time and how they affect our relationship with nature and natural systems. Psychology definitely takes the lead role; Roszak shows how its theories can be superimposed on our current relationship with and understanding of the environment in order to clarify our relationship within the present universe. Theology is explored to bring spirituality and belief systems into play and to gain a better view of the intangible qualities of our relationship with the environment. Philosophy is a heavy area of exploration; Dr. Roszak uses some of the great philosophers of recent times (such as William James) to give an understanding of the person/environment interface and of the struggle to embrace our fundamental responsibility to Gaia, as we know it.

This is an outstanding piece of work that the scholar of ecological thought will want to read more than once. It is akin to exploring a crowded antique shop, where the second trip through reveals items not seen the first time. This book is excellent for graduate-level classes or for serious professionals willing to go beyond current ecological problems and solutions to a deeper understanding of how and why.