

Against the Grain: The Vayda Tradition in Human Ecology and Ecological Anthropology

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Introduction

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The goal of this book is to present lines of research and thinking in human ecology—encompassing anthropology, geography, biology, and other fields—that we believe deserve greater attention from students and professionals. Fashions in theory and method come and go; they can be fleeting and flighty; on the other hand, very problematic traditions of thought and work can be difficult to dislodge. Somewhere in between—and we propose somewhere in the domain of ideas and methods represented in this book—is a solid, sustained, productive, and ethically responsible tradition of human ecological research.

Many of the papers included in this volume were first presented in 2003 at a special session of the American Anthropological Association in Chicago, organized in honor of the retirement of the ecological anthropologist, Andrew “Pete” Vayda. At the time of his retirement, Pete Vayda’s professional career had spanned a remarkable five decades. As the chapters in this volume will demonstrate, his sustained and catalytic influence on the development of modern human ecology and ecological anthropology is arguably unrivaled, and will almost surely continue for years to come (Vayda 2006, this volume).

The metaphor “against the grain” captures the spirit of Pete Vayda’s long tradition of scholarship in anthropology and human ecology. As discussed in detail in the following chapter by Bonnie McCay, Vayda’s quest for appropriate ways to explain human-environment phenomena has often been critical of existing approaches in anthropology and related disciplines. But lest this be viewed solely as the kind of scholarly niche construction that relies on criticizing others, it should be kept in mind that Vayda has a distinguished career as a proponent of new ways of thinking and analyzing human-environment interactions, and he has not shied away from turning his formidable critical faculties against his own work. Thus, in the 1960s when “cultural ecology” was in vogue, he argued for a “human ecology” instead, and was a leader in the development of systems approaches to human-environment relations. However, in the early 1970s he joined his students in criticizing the teleology and other excesses of systems-

based human ecology, arguing instead for an agent-based approach. In recent years, he has taken on widely-held assumptions about the nature—and culture—of explanation in human-environment research, in the course of which he has developed an analytical methodology that is informed by the pragmatic view of scholars like Charles Sanders Peirce, David Lewis, Geoffrey Hawthorn, T. Chamberlin, H.L.A. Hart, and Tony Honore and others on the causal explanation of events. Here, too, he has revised his own earlier work, including his “processual” analyses of warfare and his “progressive contextualization,” which, unlike his recent work, focuses more on contexts than on causes for explanatory purposes.

More generally, in his ethnographic and archival analyses of subjects ranging from war to ceremonial feasts to evolutionary and environmental change and, more recently, the causes of tropical deforestation and forest fires, Vayda has been highly critical of holism, essentialism, systems thinking, naive functionalism, and speculative adaptationism in anthropology and human ecology (McCay this volume). He has also pointed to the dangers of a priori assumptions and ready-made theories such as those of some cognitive anthropologists and political and spiritual ecologists. Further contributions can be found in connection with his writings on methodology and explanation; in particular, his explication of what being guided by the goal of causal explanation of concrete events implies for setting research priorities, collecting evidence, and crossing disciplinary boundaries (Vayda 1996, 1997, 1998, 2006, this volume; Vayda and Walters 1999; Vayda et al. 2004; Walters and Vayda n.d.).

Contributors to this volume critically explore Vayda’s thinking on these and other issues in relation to their own work. The subject matter addressed in these chapters is as varied as Vayda’s own influence, spanning such topics as warfare, evolutionary anthropology, environment and development, people-forest interactions, indigenous knowledge, and research methodology. True to the spirit of Vayda’s conception of human ecology, although most authors were trained in anthropology, there are also contributions from philosophers, geographers, and ecologists.

Introductory Essays

As already noted, the first chapter by Bonnie McCay serves as a kind of intellectual biography of Vayda’s thinking and influence in the fields of human ecology and ecological anthropology. As such, it helps to frame the context of many of the volume’s subsequent contributions. McCay argues here that the evolution of Vayda’s thinking can be seen as a kind of ongoing, creative destruction, with periods of profound skepticism of the mainstream followed by (or coinciding with) bursts of intellectual innovation which have subsequently re-shaped thinking in human-environment research. The chapter by Richard Scaglione on warfare provides a case in point. In it, he argues that Vayda’s first significant work,

the 1960 monograph *Maori Warfare*, remains a classic today in human ecology by virtue of its enduring impact. The book foreshadows Vayda's contemporary thinking on such matters as the importance of understanding variability and considering context in human-ecological interactions, on seeing humans as important agents of environmental change, and on the centrality of historical analysis in explanation. These themes reverberate throughout the writings of this volume.

Events, Causes, and Explanations

Vayda has long appreciated that questions of methodology and explanation, even if under-acknowledged, need to be central concerns in human ecology and the social sciences in general. Such concerns clearly dominate his more recent work (e.g., Vayda 1989, 1995, 1996, 1997, 2006; Vayda et al. 1991; Vayda and Walters 1999; Vayda et al. 2004; Walters and Vayda n.d.). Not surprisingly then, virtually every contribution in this volume explores aspects of methodology and/or explanation to some degree. This section includes nine chapters which focus more explicitly on these questions and how they pertain to studies of human-environment interactions.

In the first of these chapters, Gunnar Haaland draws upon Vayda's "progressive contextualization" (1983) and Walters and Vayda's "causal historical" approach (n.d.) in his study of human migration, to understand why Nepalese dominate the garment trade today in Phuket, Thailand. The case illustrates well how local and non-local influences of diverse kinds (political, economic, environmental) can be woven together into causal histories by moving outward in space and backward in time. Brad Walters similarly expands upon arguments first made in his and Vayda's controversial paper, "Against political ecology" (Vayda and Walters 1999). Here he attempts to clarify arguments in favor of causal historical research to explain environmental events or changes—the "event ecology" set forth in Vayda and Walters 1999 and Walters and Vayda n.d.—where there may be political (as well as other) influences at play.

Readers with interest in political ecology should find Walters' chapter of particular interest, as well as the subsequent chapter concerning environmental narratives by Endre Nyerges. In this chapter, Nyerges critiques James Fairhead and Melissa Leach's highly influential research on revisionist views of West African forests. He suggests that Fairhead and Leach are too quick to jump to conclusions based on limited information and sometimes simplistic analysis. Nyerges presents his own work as a contrast case, arguing in the process for greater methodological rigor and "painstaking" attention to empirical data from the field and remote sensing. David Bart's chapter then examines the problem of understanding and managing against the spread of invasive biological species, using case study work from the salt marshes of New Jersey. His work on primarily bio-ecological changes demonstrates the broad applicability of the event

ecology approach.

Thomas McGuire's contribution explores the relationship between ethnography and investigative journalism, using as his case study a Louisiana court ruling on a taking of oyster bottom by the state. To what extent is good investigative journalism on par with good ethnography? McGuire's response is that both often focus on causal narratives and context-rich understanding of interesting events. Christine Padoch, Miguel Pinedo-Vasquez, and Andrew Roberts would likely agree on the context-richness of ethnographic inquiry, but they might be inclined to take McGuire, Vayda, and some others in this volume to task on their claims about the centrality of "events" in explanations of human-environmental change. Instead, Padoch et al. argue, drawing upon insights of agro-ecological change in Brazil, that particular changes of interest are often better understood as parts of larger processes of change, rather than simply discrete events in chains of event causation.

Paul Roscoe explores questions of methodology from a different angle, arguing that Vayda's important methodological prescriptions need to be "joined to a sociology of inquiry" that examines why researchers so readily succumb to the twin failings of undisciplined field inquiry and uncritical theorizing. He suggests that anthropologists' unique monological authority in field studies, in particular, fosters uncritical scientific practices within the discipline. Roscoe cites Vayda's scholarly recantations of his early work on Maring warfare as a rare illustration of the kind of skeptical and brutally honest self-criticism that should be exemplary in anthropology. He then presents a case study demonstrating similar revision of his own, earlier studies of the "maiya," a culture-bound syndrome experienced by the Yangoru Boiken people of Papua New Guinea.

Lawrence Kuznar and Kenneth Long examine these and related issues from a more strictly philosophical perspective. Specifically, they scrutinize Vayda's claims about the merits of causal-mechanical explanations and then offer some defense of the deductive-nomological (i.e., theory-driven) model of scientific explanation. These matters are likewise taken up by the philosophers Catherine Driscoll and Stephen Stich, who interrogate Vayda's extensive critiques of Darwinian Ecological Anthropology, now usually called "Human Behavioral Ecology" (see Vayda 1995). They too suggest deductive-nomological explanations have a central role to play, but ultimately support Vayda's central argument that neglect of proximate factors in many Darwinian explanations seriously undermines the power of those claims.

Research on Environment and Development

In the late 1970s, Vayda initiated what would become a long-lasting involvement in applied research on people-forest interactions in Indonesia, collaborating first with the UNESCO Man and the Biosphere Program, and later with World Wildlife Fund (WWF)-Indonesia and the Center for International Forest

Research (CIFOR). The need to deal directly with the practical concerns of policy makers fostered a heightened interest in questions of research methodology. In short, how can one do research that is both intellectually satisfying and useful to decision makers? The seven chapters in this section address this larger question from a number of different perspectives. First, drawing upon her extensive experience with WWF-Indonesia's Culture and Environment Program, Cristina Eghenter argues that distinctions between academic and applied research are unhelpful, and that research into environment and development problems are fundamentally interdisciplinary. She recommends that studies be guided by good questions and a rigorous research approach that probes causal linkages and is situated within historical context.

Paige West illustrates the value of obtaining deeper, contextual understanding of human environment relationships in her analysis of an event that represented a serious setback to efforts aimed at protecting endangered species in a protected area in Papua New Guinea. In this case, she shows how well-intentioned efforts of western conservationists backfired because they failed to incorporate local social histories and understandings of land tenure and "nature" into their management planning. The importance of differing ideologies of conservation and development is highlighted by West, an idea that is explored further in the chapter by Michael Dove, Andrew Salvador Mathews, Keely Maxwell, Jonathan Padwe, and Anne Rademacher. These authors present a series of case studies from Latin America and Asia illustrating how differing human interests or "agency" shape the discourse and influence the design of environment and development policies.

In the respective chapters by Patricia Vondal and Carol Pierce Colfer, the authors grapple with challenges of making research policy-relevant, and suggest that Vayda's (1983) conception of progressive contextualization is a useful starting point, with its emphasis on understanding human-environment interactions by situating them in progressively wider and/or denser contexts. In particular, Vondal explores the utility of both progressive contextualization and causal historical research for evaluating why particular development projects succeed or fail. She concludes that these methodologies are effective, indeed, and then offers useful guidelines for development practitioners to follow.

Colfer takes a less sanguine perspective, arguing that researchers need to take a step beyond the analysis of past events and become more directly engaged with decision makers so that knowledge gained by such research actually translates into policy action. To do this, she proposes Adaptive Collaborative Management (ACM), a process by which key stakeholders (policy makers, community members, researchers) participate directly in the analysis of a problem (moving backward historically) as well as the devising of solutions to that problem (moving forward to the future). Gerard Persoon and Padmapani Perez are likewise uncomfortable with only going "backward" in time to explain present actions and consequences. Instead, they propose that social scientists need to pay more attention to the future or, more precisely, "scenarios of the future"

which often inform the actions of individuals and organizations in the present.

The short chapter by Indah Setyawati explores the question of whether Indonesian rice farmers are *in situ* repositories of significant crop germplasm diversity. After all, even if farmers have complex knowledge about rice varieties, it can't be assumed that their practices will necessarily result in conservation of diverse varieties over time. The study illustrates well how research guided by the goal of explanation of concrete events (in this case, farmers' selection of rice varieties for planting), combined with careful data collection, can elucidate information of both scholarly interest and practical utility.

The volume appropriately concludes with an essay by Andrew Vayda. Here, he responds to many of the issues raised in other papers in the volume. But he has gone much further, articulating in a compelling manner the arguments for a pragmatic but logically and evidentially defensible approach to research and explanation in human ecology, ecological anthropology, and the social sciences, in general. This ambitious piece is yet further testament to Vayda's remarkable and sustained contribution as a scholar, one who remains—after five decades—at the top of his game and on the leading edge of his field.

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