

ADVANCING ENVIRONMENTAL STUDIES VIA INTERDISCIPLINARY STUDENT RESEARCH

Extract from Lewis & Clark College Mellon Foundation Proposal
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Background

Environmental studies as an interdisciplinary field

In little more than three decades, over 600 American institutions of higher education have established environmental programs, with nearly two-thirds of these programs focusing on undergraduate students.¹ This burgeoning presence of U.S. undergraduate environmental studies² programs has been the basis for several recent scholarly assessments and critiques. The verdict is mixed: as one assessment argued, “Even as environmental programs evolved and diversified, a definition of environmental studies and clear statements about curricular content and educational objectives have remained elusive,”³ and another concluded “Environmental studies is a field lacking unifying principles and clarity of identity.”⁴ On the other hand, one response maintained that “...departments and programs are embracing multiple innovations and strategies”⁵ to address problems of coherence, and another noted that, in spite of these challenges, “Environmental programs are filled with vibrant, committed, stretched-to-the-limit faculty...students are remarkably enthusiastic about their programs and are fully engaged on many levels.”⁶

All of the above assessments acknowledge a fundamental reality faced by environmental studies: the complexity of environmental issues, and the derivative breadth of contributing disciplinary perspectives, are arguably greater than in any other field. To some, this is a golden opportunity to break down the fences separating disciplines – most notably that between the natural sciences on the one hand, and the social sciences and humanities on the other – in pursuit of a genuinely interdisciplinary field.⁷ To others, this call for interdisciplinary coherence ignores the very real – perhaps insurmountable – differences of theory, language, method, and style between disciplines. Not surprisingly, the former tend to believe that environmental studies is doing well today as an interdisciplinary field, whereas the latter do not.

¹ Aldemaro Romero and Paul Silveri, “Not All Are Created Equal: An Analysis of the Environmental Programs/Departments in U.S. Academic Institutions from 1900 until May 2005,” 1, no. 1 (2006).

² We realize that environmental programs adopt a variety of names, primarily environmental studies or environmental science. Though the opportunities and challenges noted in this proposal are perhaps felt most keenly in environmental studies given its broader disciplinary breadth, the boundaries between programs bearing these and other names are fuzzy, and all aspire to greater coherence and scholarly achievement. Hence, we will use “environmental programs” and “environmental studies” interchangeably.

³ Michael E. Soule and Daniel Press, “What Is Environmental Studies?,” *BioScience* 48, no. 5 (1998), 397.

⁴ Romero and Silveri, “Not All Are Created Equal: An Analysis of the Environmental Programs/Departments in U.S. Academic Institutions from 1900 until May 2005,” 14.

⁵ Michael F. Maniates and John C. Whissel, “Environmental Studies: The Sky Is Not Falling,” *BioScience* 50, no. 6 (2000), 516.

⁶ Stephanie Pfirman, Sharon J. Hall, and Tom Tietenberg, “Environmental Programs: Liberal Arts Colleges and Interdisciplinary Education,” *Environmental Science and Technology* 39, no. 10 (2005), 222A.

⁷ For the purposes of this proposal, interdisciplinarity is defined as an effort to build connection and coherence in fields of inquiry that draw upon multiple disciplines such as environmental studies. See e.g. www.interdisciplines.org/interdisciplinarity for a recent vibrant discussion of opportunities and challenges.

But it is perhaps premature to assess the degree of interdisciplinary coherence in a field as broad and relatively youthful as environmental studies. One may instead ask: Do we see evidence that environmental studies has *advanced* over the last several decades as an interdisciplinary field? The question has immense scholarly and practical implications: to the extent that environmental studies is maturing as a scholarly field, its status in higher education and its ability to help solve real-world problems will grow. To our knowledge, no rigorous studies are available to shed light on this important question, but there are at least some indications that, in spite of clear numerical growth and applications of technology in the field, there is less evidence of advancement in its core concepts and theories.

One example involves the influential early concept of the ecosystem, which in environmental studies has generally suggested a tight interdependence of system components and an ideal state of equilibrium in system dynamics – an equilibrium that human activities often disrupt. Both of these characteristics, however, have been strongly challenged in ecology,⁸ and though some scholars have considered implications for environmental studies,⁹ examination of contemporary environmental studies textbooks suggests that there has been little advancement in the concept. More broadly, there has been vigorous debate over cultural influences on our concepts of nature and environment,¹⁰ suggesting that the powerful early notion in environmental studies of an Earth imperiled by human activities is as much a social construct as a biophysical reality. Though, again, there have been excellent scholarly attempts to bring realist and constructivist views into harmony,¹¹ this major, cross-cutting theoretical issue has only peripherally, if at all, made its way into environmental studies curricula.

Advancing environmental studies

This evidence, though a cause for concern, suggests a question at the heart of our initiative, one the academic community must begin to explore: *How* may environmental studies advance as an interdisciplinary field? Though the broad scholarly agenda of environmental studies poses challenges, its growth and popularity suggest good potential for intellectual advancement. One recent set of assessments points to key institutional requirements for advancing interdisciplinary scholarship in environmental studies, such as adequate staffing and faculty incentives.¹² Yet attention must also be paid to two characteristics of environmental studies that

⁸ Michael G. Barbour, "Ecological Fragmentation in the Fifties," in *Uncommon Ground: Toward Reinventing Nature*, ed. William Cronon (New York: W.W. Norton & Company, 1995); James D. Proctor and Brendon M.H. Larson, "Ecology, Complexity, and Metaphor (Introduction)," *BioScience* 55, no. 12 (2006).

⁹ Daniel B. Botkin, *Discordant Harmonies: A New Ecology for the Twenty-First Century* (New York: Oxford University Press, 1990); Donald Worster, "The Ecology of Order and Chaos," *Environmental History Review* 14, no. 1-2 (1990).

¹⁰ William Cronon, ed., *Uncommon Ground: Toward Reinventing Nature* (New York: W.W. Norton & Company, 1995); James D. Proctor, "Solid Rock and Shifting Sands: The Moral Paradox of Saving a Socially-Constructed Nature," in *Social Nature: Theory, Practice and Politics*, ed. Noel Castree and Bruce Braun (Oxford: Blackwell Publishers Ltd., 2001); James D. Proctor, "The Social Construction of Nature: Relativist Accusations, Pragmatist and Critical Realist Responses," *Annals of the Association of American Geographers* 88, no. 3 (1998).

¹¹ N. Katherine Hayles, "Searching for Common Ground," in *Reinventing Nature? Responses to Postmodern Deconstruction*, ed. Michael E. Soule and Gary Lease (Washington, D.C.: Island Press, 1995); Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy* (Cambridge, Mass.: Harvard University Press, 2004).

¹² Stephanie Pfirman et al., "Collaborative Efforts: Promoting Interdisciplinary Scholars," *Chronicle of Higher Education*, February 11 2005; Pfirman, Hall, and Tietenberg, "Environmental Programs: Liberal Arts Colleges and Interdisciplinary Education."

limit its opportunities for intellectual growth vis-à-vis more conventional disciplinary fields such as biology, sociology, or history:

1. There are very few Ph.D.-granting programs that embrace the cross-disciplinary breadth of environmental studies, with key implications for cutting-edge research and theoretical development of the field. In comparison to conventional disciplines, environmental studies is largely an *undergraduate* field.
2. Though regional networks and national administrative organizations (e.g., CEDD) exist,¹³ there is as of yet no U.S. professional environmental studies association to provide for scholarly exchange via conferences, publications, and related academic fora.

We thus propose the following hypothesis as a complement to existing recommendations and initiatives:

Environmental studies will advance as an interdisciplinary field to the extent that it provides resources and promotes opportunities for high-quality research and exchange among its undergraduate students, who are the future generation of environmental scholars and leaders.

There is no doubt that environmental studies potentially offers American undergraduates a rich academic experience, one deeply resonant with fundamental virtues of liberal education including intellectual breadth, critical inquiry, and practical engagement with the world. Our proposed initiative will explore one important means of promoting excellence in environmental studies, with significant benefits not only for the Environmental Studies Program at Lewis & Clark College but for American environmental studies as a whole.

¹³ The Council of Environmental Deans and Directors (CEDD) plays an important role in bringing together heads of American environmental programs. Jim Proctor has been active in conversations sponsored by CEDD, including a recent Environmental Summit at UC Santa Barbara, toward formation of a professional organization for environmental studies.