

ADVANCING ENVIRONMENTAL STUDIES VIA INTERDISCIPLINARY STUDENT RESEARCH

Extract from Lewis & Clark College Mellon Foundation Proposal
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Note: The research sites mentioned below pertain to Lewis & Clark only; participating students from other institutions may choose any location for their situated research

Procedure

Situated Research Emphasis

Interdisciplinarity is a laudable goal; quality interdisciplinary research is, however, an ambitious challenge. We thus propose a specific strategy for interdisciplinary scholarly research, one borrowed in part from the discipline of geography yet immediately applicable to environmental studies. Our strategy involves a focus on situated research, applying the geographic concept of place so that students learn to situate a particular environmental issue in its full context. To geographers,¹ place means more than the descriptive features of a location, or an emphasis on the local (in distinction to its common usage in environmental discourse). Place-based or situated research, rather, refers to *located* inquiry, one in which the intersection of a wide range of processes and perspectives in a particular location is the object of interest. Place, to geographers, challenges the tidy distinction between natural and cultural dynamics, as well as the distinction between local and global spatial scales, and near and distant timescales. In situated research, multiple processes on multiple scales intersect. Additionally, situated research benefits from a wide range of perspectives, ranging from highly localized, contextual views to more “objective” data and knowledge.

Consider the site focus for our recent faculty development workshop: Tryon Creek watershed, covering approximately 4,000 acres in suburban Portland immediately adjacent to the Lewis & Clark campus. The watershed is primarily used as a residential area, with a population of roughly 18,000, but also contains a large park, the 630-acre Tryon Creek State Natural Area. A number of environmental issues are immediately evident, including stream and riparian habitat degradation, impacts of settlement on Tryon stream hydrology, and acute transportation congestion during peak commute hours for the Portland metropolitan area. But a more integrated picture of Tryon Creek watershed emerges from the industrial history of the general region, in which one of the largest cast iron production facilities on the U.S. West Coast in the 19th century was located due to an abundance of iron ore, water for transport, and wood for energy (via charcoal production). Following worldwide economic decline in iron versus steel production in the latter 19th century, real estate holdings were exploited not for wood fiber but their aesthetic amenities, and the Tryon Creek area began to feature some of the most exclusive neighborhoods of Portland.

Today, few are aware of the linked economic, cultural, social, hydrological, and ecological history of Tryon Creek, but contemporary intersections of processes are still evident. One of the most striking visual connections we encountered during our faculty workshop was a major sewer line running immediately adjacent to Tryon Creek in the State Natural Area. Similarly, a

¹ Anne Buttimer and David Seamon, *The Human Experience of Space and Place* (New York: St. Martin's Press, 1980); J. Nicholas Entrikin, *The Betweenness of Place: Towards a Geography of Modernity* (Baltimore: The Johns Hopkins University Press, 1991); Robert David Sack, *Place, Modernity, and the Consumer's World: A Relational Framework for Geographical Analysis* (Baltimore: The Johns Hopkins University Press, 1992); Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977).

variety of on-the-ground and scholarly perspectives shed distinct light on Tryon Creek, ranging from excellent GIS coverage by the Portland metropolitan district to attempts to bring self-sufficiency to Tryon by residents of an alternative-lifestyle farm. It is impossible to think of Tryon Creek watershed as wholly cultural or natural, to understand it without recourse to a wide range of scholarly and resident perspectives, or to make sense of its local environmental amenities and problems without invoking larger-scale explanations in space and time. These processes and perspectives intersect in Tryon, and all matter as an important context for doing situated environmental research in the location.

Situated research conveys at least four major benefits to students:

1. It offers a more concrete context for students to grasp the wide range of interdisciplinary connections in environmental studies, working well for the many students who learn best by engaging firsthand in the process of discovery.
2. It offers a means to build, store, and share research resources such as GIS data, and to add to these resources incrementally via research results.
3. It offers a connection with real-world, practical problems in their actual setting, providing students the opportunity to make a contribution to solution of these problems.
4. It provides a good basis for students to compare their work between locations, leading to collaborative opportunities, exchange of methodological and other ideas, and refinement and generalization of the theories they are building.

Not all high-quality environmental research need be situated: for instance, policy analysis of environmental legislation, or systematic inquiry into species habitat needs, are also important. But situated research offers key opportunities to explore and build greater interdisciplinary connection in environmental studies, and thus will be emphasized in this initiative.

For Lewis & Clark students, we have selected an initial set of local and overseas sites to serve as foci for situated research. Our intent for local sites is to provide a diverse set of readily accessible opportunities for class and research projects, with each featured via annual faculty development workshops. This summer's faculty development workshop focused on the first of these sites, Tryon Creek watershed; our efforts during and after the workshop are geared toward building research resources for student use. Next summer's faculty workshop will focus on the Columbia Slough, a larger (32,700 acre) watershed in Portland with an entirely different environmental, cultural, and economic history from Tryon Creek. Levels of industrialization, toxic contamination, and minority settlement have led to charges of environmental racism;² thus the priority environmental issues and place-specific processes responsible for these issues in Columbia Slough comprise an important comparison to those of Tryon Creek. Our proposed faculty development site in 2008 is the Alder-Jordan Creek watershed in southern Oregon, a 2,500-acre location that offers an important rural comparison to the Portland sites, especially given the dependence of local populations on natural resource utilization such as logging and wood products manufacturing. Additional sites will be selected as the initiative proceeds.

² Ellen Stroud, "Troubled Waters in Ecotopia: Environmental Racism in Portland, Oregon," *Radical History Review* 74, no. 1 (1999).

In addition to local sites, with the Office of Overseas and Off-Campus Programs at Lewis & Clark we have identified a set of overseas sites for situated research. Lewis & Clark is home to an extensive program of overseas and off-campus study opportunities for undergraduates. Each year roughly 260 students participate in approximately 23 overseas and off-campus programs at Lewis & Clark, either abroad or in selected areas of the United States. Over half of the students who graduate from Lewis & Clark's undergraduate college will have spent at least one semester studying overseas or at a domestic off-campus location.

It is important to us that environmental studies majors appreciate the international, cross-cultural dimensions of environmental issues; thus we have collaborated closely with Overseas and Off-Campus Programs in designing this initiative. An initial set of six sites, selected largely upon the existence of a high-quality Lewis & Clark program in these locations, availability of research resources, and some degree of regional representation, includes Australia, China (Hong Kong), East Africa (Kenya/Tanzania), Ecuador, India, and Scotland.