Ecosystems of Meaning:

A Place Based Environmental Psychology Course

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Environmental psychology is the study of human relationships with built and natural environments. As the branch of psychology most concerned with the physical setting of behavior, it is an applied science. Theory and research in environmental psychology are often goal oriented, “aimed at improving human relations with the natural environment and making the built environment more humane” (Gifford, 2014, p. 543).

In a place-based environmental psychology course, as conceptualized here, the physical setting is emphasized. Learning moves out of the classroom and into the community: to workplaces, savannas, Superfund sites, therapeutic gardens, public housing projects, and biophilic buildings. Place-based instruction aims to enrich and intensify course material through engagement with local nature and culture.

In this paper, we approach place-based instruction from a number of different, but inter-related, points of view. First, we will consider how and why a conventional course became a class without a classroom. Second, we will see how “placed-based” is larger than a field trip. Third, we will use the lens of psychology to explore the conceptual underpinnings of this approach to teaching and learning. Finally, we will see how place-based instruction can be a holistic experience for both student and professor.

**Moving Out Of The Classroom**

I began teaching Environmental Psychology in the early 1990s. Initially, I taught it in a traditional manner, in a classroom with an emphasis on lecture and discussion, and an approach rooted in my home discipline of psychology. Occasionally, a topic would lend itself to a field trip, and I’d ask students to save a weekend or two for a class outing.

One of our readings, for example, was Yancey’s classic article, “Architecture, Interaction and Social Control” (1971). Using psychological interpretations related to “defensible space,” Yancey described the failure of a major public housing project, Pruitt-Igoe, in St. Louis. Constructed in the early 1950s, Pruitt-Igoe was highly lauded, and won a major architectural prize, only to be dramatically demolished twenty years later. In response to the reading, I began taking my students to one of Chicago’s own public housing projects, the Robert Taylor Homes. We’d spend a Sunday touring with a neighborhood activist and meeting residents. As I observed the students, I saw how Yancey’s concepts became real for them, and how these realities heightened discussion and engagement.

I began imagining many possibilities for site visits, but it was difficult to ask students for more than one or two weekends a semester. Still, Environmental Psychology, with its emphasis on relationships between humans and physical settings, seemed to suggest such an approach. After some trial and error with shorter trips during our usual 80-minute class time, I made the decision to schedule the class for three hours once a week, and moved out of the classroom and into the community.

**Place-Based: More Than A Field Trip**

Often, on our way back to campus from a field site, a student would say, “How come I didn’t know *this* was here?” “This” might refer to a local nature preserve that is home to remnant native prairie, or to an historic estate that is now a thriving artists’ colony, or to a Lake Michigan Superfund site a few miles up the road. I was puzzled by students’ disconnection from the world around their campus.

At the same time, I’d been inspired by Barry Lopez’s eloquent essay, “The Rediscovery of North America,” which espouses a philosophy of place—a geography informed by both spirituality and psychology (1991). Lopez argues that if the earth is to be our true home, with all of the affections, responsibilities and obligations that “home” implies, we need to cultivate intimacy with a place, much as we would with a person. Such intimacy comes from observation and study, from a kind of conversation with the physical environment. Consequently, I began writing what I called “labs,” asking students to observe and then respond to a set of purposeful questions about each field site.

My environmental psychology course acquired a larger purpose and a broader context. In addition to the original course goals (that students would come to understand the theories, research findings, and methodological approaches of the subject), I hoped that they would expand and deepen their personal awareness of and connection to the place where they were spending four years. I hoped that readings and experiences would become joined together in an “ecosystem of meaning” (Elder, 1998). In the process, I was also strengthening the environmental dimensions of the course (which is cross-listed in Psychology and Environmental Studies).

As it turns out, I was not alone in this approach. The field of environmental education has long advocated place-based pedagogy, beginning in the 1990s with the Nature Literacy publications of The Orion Society. In David Sobel’s *Placed-Based Education* (2004), I found the name for the way I was teaching.

**Through The Lens Of Psychology**

Several interwoven ideas about human development and learning inform a placed-based approach. Here, I will emphasize the following: a balance between structure and freedom, the prepared environment, and meaningful contexts for learning. These conceptions, articulated as educational theory more than a century ago by Maria Montessori, have been reinterpreted through the scientific methods of contemporary psychology (Lillard, 2005; Beilock, 2015).

**Balance between structure and freedom:**

Traditional classrooms offer structure and predictability. Knowing what will happen—and how and when—benefits most students. When the world becomes the classroom, traditional structures fall away. The instructor is no longer lecturing at the front of the class. Destinations are different every week. There is no favorite seat. The weather cooperates (or doesn’t).

In a place-based class, a consistent, predictable schedule becomes an important source of structure. Predictability facilitates formation of organized conceptual and behavioral expectations (Carlson, 2003). These expectations, like well-designed workplaces, allow students to conserve their energies for learning (Vischer, 2007).

Within these structures, however, there is respect for student autonomy. For example, the study of ambient environments is central to Environmental Psychology, and throughout the term, my students keep light and sound journals. They have the option to complete these weekly journals alone or collaboratively, and in settings of their own choosing. The culminating assignments (critical reviews of Bogard, 2013, and Prochnik, 2010) can be written individually or with a classmate. Thus, within the framework of overarching structures, student choice and control are emphasized.

**The prepared environment***.*

Place-based teaching begins with a series of questions. What does a particular place offer? What kinds of activities does it invite? How can learning be maximized here?

Underlying these questions is the idea of “affordance,’ used in the sense of something that facilitates or promotes; ecological psychologists view objects or settings as encounters that “afford” certain behavioral interactions (Miller, 2007). Just as a chair “affords” sitting, a winding path (as might be found in a Japanese garden) cues strolling rather than running.

A related approach comes from Montessori’s (1966) notion of the “prepared environment.” Montessori classrooms are designed not only to facilitate learning, but also to shape behavior. The student and the behavioral setting interact, and a well-prepared environment does much of the “work” of teaching.

In a place-based course, a primary role of the instructor is to create behavioral settings that maximize learning and engagement. This “prepares” the environment, in a sense, to be the teacher. As part of our study of environmental perception and cognition, for example, we visit a Japanese garden. In addition to assigning relevant readings, I go to the garden in advance, assess its affordances, and prepare a lab that highlights what the garden can teach.

**Meaningful contexts for learning.**

Meaningful contexts are experiences that provide conceptual frameworks and motivational support for the acquisition of new knowledge (Lillard, 2005). Although meaningful contexts are sometimes discussed as “situated cognition” (applied primarily to internships and apprenticeships), here it is useful to think of them as experiences that improve learning by connecting abstract ideas to their manifestations in the real world.

This relationship between abstract and concrete can be seen in how a place-based class approaches the topic of wayfinding. We begin by reading Lynch (1961) and Kaplan and Kaplan (2011); these authors propose criteria that determine the success of navigating new environments. We then go to a local nature preserve where students practice identifying wayfinding features. Finally, they transfer this learning to a new context with a wayfinding analysis of Lake Forest, Illinois, their college home and a community designed in the “picturesque” tradition. In the process, they come to understand how landscapes affect behavior, and tell larger evolutionary, cultural and psychological stories.

Thus, written assignments, readings, and physical settings interrelate and levels of knowledge interact. Direct experiences provide mnemonic anchors for abstractions. The social context of interacting with a place adds interest and motivation (Lillard, 2005). Finally, the physical manner—walking—in which many assignments are carried out, can promote “embodied cognition” or the “reading and doing” mind. Research on embodied cognition emphasizes the advantages of movement for learning and memory (Beilock, 2015).

**The holistic student (and instructor)**

Place-based teaching is holistic on conceptual and personal levels. Conceptually, within a single setting there are multiple ideas at work. For example, in a unit on architecture and behavior, we analyze our campus library, employing a variety of principles derived from the study of workplace design, personal space and territory, biophilia, ambient environments, and spatial nostalgia. An essay by the library’s architect (Freeman, 2005) provides an overarching framework for these investigations.

We also analyze concepts across settings. Early in the course, we learn about Attention Restoration Theory (Berman, Jonides & Kaplan, 2008), beginning with a visit to a therapeutic garden (Marcus & Sachs, 2014). Every place thereafter can be considered in terms of its restorative qualities and “soft fascinations.” Similarly, when we study evolved responses to landscapes and walk a savanna to assess its prospect-refuge attributes (Orains & Heerwagon, 1992), we lay the groundwork for a subsequent biophilic analysis of architecture (Hildebrand, 2008).

These layered interconnections also manifest on a personal level. At times during the course, students write about their own experiences with space and place.. In papers on light pollution, I “listen” as they wrestle with the loss of true night skies: *“I have become more attuned to dark nights and find myself longing for true darkness, ”* and *“Sadly, 80% of children will never know a night sky dark enough to see the Milky Way.”* As we walk through landscapes and buildings, they also speak to me more privately. At a local arts-and-crafts based farm-museum complex, one student confides that he wants to be a landscape architect; during a visit to an exceptional local school, another reveals her hopes for her own son’s education. Built, natural, and personal environments become cross-referenced in an active and increasingly complex manner.

As I think about the responses of students to this class, I am particularly struck by what they say—anonymously, in course evaluations—at the end of the semester. Students recognize the holistic dimensions of their experience: *“By taking class field trips to locations that were central to that day’s readings, I could better understand and comprehend the materials;”* *“Blends and synthesizes with your identity, and so a student learns more about the subject and their place in the world;”* “*This class’s field trips have been grounding, touching, and deeply motivating by connecting us with nature;”* and, *“I am still young and am thankful to have read this book before I choose a career path, and before I have children of my own. Not only do I have a deep fervor to see a Bortle Class I night sky simply to absorb the feeling of the universe raining down on me, but I also want to better understand what the earth needs from me.”*

One of my favorite course memories is from Frank Lloyd Wright’s “Wingspread,” a residence designed for the president of Johnson Wax Company. A quiet student, one I did not know well, asked if he could play the Steinway in the living room. With some trepidation, I approached staff for permission. To my surprise, relief, and immense pleasure, the student was a talented jazz pianist. As he played, activity in the entire, 10,000 square foot house came to a stop. We all listened to music made transcendent by human gifts and the beauty and acoustics of a remarkable architectural space.

A place-based Environmental Psychology course aligns cognition and emotion. There is concerted effort and sustained concentration, intermingled with spontaneity, delight, laughter and conversation. It seems both work and play, a shifting and ongoing dynamic that is at the heart of teaching and learning.

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