

# Replacing nature in environmental studies and sciences

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**Abstract** The concept and practice of place is an important answer to two questions posed at the outset: what is the environment of environmental studies and sciences (ESS), and what sort of ecoliteracy do we need today? Yet place is more than it has often been understood in ESS, where notions of the local and the natural have loomed large. Scholarship from the field of geography can help ESS re-frame environment and ecoliteracy in a manner amenable to the contemporary world. Place has been a century-long conversation in English-language geography, building on traditional regional approaches and running to recent work, paralleling contemporary notions of geographical imaginations, in which places are now understood as diverse nodes in larger hybrid nature-culture networks, and senses of place are now understood as “glocal” identities. Contemporary geographical approaches to place challenge common associations with nature and the local; and ESS may feel a bit like “everything studies and sciences” as a result. But ecoliteracy could become a new knowledge and practice of the larger connections that define place, and this deeper sense of place could suggest to our students a deeper way of dwelling on Earth.

**Keywords** Place · Geography · Environment · Ecoliteracy

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## Motivation

Two questions prompt this brief essay, one theoretical, the other practical: what is the “environment” of environmental studies and sciences (ESS); and what sort of ecoliteracy do we need today? My answer to both involves place, but not the sort of place one sometimes hears in ESS. I will draw upon its long history in geography, where the concept of place has been most highly developed, to suggest a notion of place without primary affinity to nature and the local. Yes, place greatly matters both theoretically and practically in ESS, especially at this time in our field’s development, but not the place some have grown accustomed to.

The essay begins with a conceptual reexamination of environment, turns to place as the etymological ally of environment, reviews this rich notion of place as it has unfolded in scholarship from ESS’s close neighbor, geography, then considers how a new sense of place in ESS could address the new practical challenges of ecoliteracy in today’s world.

## Definition

What is the environment of ESS, and has it changed since the founding of ESS in the 1960s and 1970s? “Environment” to ESS is like “economy” to economics or “life” to biology: it’s not only a part of our academic field’s name, it’s also a key concept we must interrogate lest we proceed with outdated assumptions. The longstanding question of how life unfolds is receiving fresh treatment following the recent wave of research in epigenetics (Holliday 2006), similar to the question of how macroeconomic systems unfold given lessons from the Great Recession (e.g., Cochrane 2011; Taylor 2011). These fields are constantly rejuvenated by such acts of redefinition.

If ESS has an analog to the reality of the Great Recession in economics or the renewed concept of epigenetics in biology, it is the broad realization that environment is by no means as straightforward as we once thought. Discourse on environment from the 1960s and 1970s often cast humans (including our economies and technologies) as the primary actors; we both depended on and impacted environment. Environment was stable, in balance, until humans changed it, often for the worse. The quality of environment was expressed in notions of pollution vs. purity, and we were the ones responsible for both. The imperative was clear: give a hoot, don't pollute!—thus Woodsy Owl of the U.S. Forest Service captured the environmental zeitgeist of the 1970s.

Much of this received notion of environment is captured in the definite article that precedes it. “The” environment is an important reality, apparently woefully neglected for ages until (following one typical American narrative) Rachel Carson and the Clean Water Act and other such 20th century founding moments brought it into the foreground of concern. Now, each time we receive an email we are reminded to “Please consider the environment before printing”; indeed, it is rare today to find a sector of human activity where our impact on “the environment” is not a nagging worry.

These notions of environment emphasizing its universal qualities and our common impacts on this neglected reality are not so much untrue as incomplete. There is still plenty of pollution today; “the environment” is patently not considered in a wide range of human decisions; our environmental impacts have in many respects only grown in magnitude. And arguably, “the environment” was exactly the strategic essentialism needed in the 1960s and 1970s.

But these are new times. Take a look, for instance, at articles from the *New York Times* leading up to the 9/23/14 UN-sponsored climate summit in New York City; these articles appeared as this essay was initially drafted, but could readily be identified in any given week. I read, for instance, the familiar story of how “Warming Temperatures Threaten Fragile Balance in Canadian Arctic” (Becker 2014) and indeed “Global Rise Reported in 2013 Greenhouse Gas Emissions” (Gillis 2014). But I also read “For Polar Bears, a Climate Change Twist” (Gorman 2014), detailing how a burgeoning population of snow geese has become an abundant new meal for the large mammals. The study suggests “...how climate change collides with other environmental changes at the local level and plays out in a blend of domino effects, trade-offs and offsets.” And then there's “To Save the Planet, Don't Plant Trees” (Unger 2014), an op-ed by a Yale researcher suggesting that reforestation “...in the tropics would lead to cooling, but in colder regions, it would cause warming” due to additional factors including albedo (dark trees absorb more solar energy) and off-gassing of volatile organics leading to greater production of methane, ozone, and particulates. The author spares no sacred fable of trees and climate: “The Amazon rain

forest is often perceived as the lungs of the planet. In fact... [it] is a closed system that uses all its own oxygen and carbon dioxide.”

We see both “the environment” and “environment” in these articles, emphasizing the narrative elements we have grown accustomed to worry about (the fragile environment; increasing levels of pollution) and a new, unfamiliar, site-specific story in our altered climate (polar bears thriving in certain parts of the Arctic; reforestation not necessarily helpful everywhere). Environment becomes filled with surprising, often maddening geographical dynamics and connections. At a time when so many people ask for definitive, universal answers to our environmental crises, it seems that patterns and processes of place matter more than ever.

## Connection

This emerging view of environment as place-based connection corresponds with environment in the older sense as well (Proctor 2009a). From the early 17th century through the next two centuries, environment meant one's environs or surroundings in a general sense. By the mid-19th century, environment had become two entities: one's physical surroundings necessary to sustain life, and one's cultural surroundings necessary to build character. Much more recently, environment became understood as “the” environment, i.e., the natural world. Many of these meanings are evidenced today, but the common understanding of environment has largely changed from a relation to a thing, and from a diverse set of relations to nature things. Environment has, in short, become purified in the popular imagination as “the” environment, or biophysical nature—a deeply resonant yet problematic concept I (Proctor 1998, 2009a, b, 2013) and many others have discussed at length.

If environment is that which surrounds, the ways we are connected to our surroundings are not universal; they are place-specific. This is clear from the *New York Times* articles above: reforestation may or may not help depending on where it's done, and the spatial dynamics of polar bears and snow geese have collided in important ways in Manitoba. Approaching environment from the vantage point of place vs. biophysical nature honors these complexities.

Are more nuanced realizations of environment unfolding in ESS? Certainly; and place-specific connections and dynamics are similarly honored. Place is often understood in ESS as “sense of place,” conveying connectedness to one's surroundings, and generally suffused with deep green goodness, for instance in the phenomenologically inspired work of David Abram (1997, 2011), where sense of place is largely shared among attuned humans and nonhumans. As another example, sense of place is central to the notion of bioregion, popular among some environmentalists from the 1970s on (e.g., Berg

1978; Sale 1985; McGinnis 1998). Yet others worry that this notion of place, common in recent American environmentalism, suffers from “ecolocalism,” where a truncated sense of the local prevails (Heise 2008).<sup>1</sup>

Can place-based understanding of environment avoid these simplifications of nature and the local? Thankfully, ESS is a highly interdisciplinary field, and as a result draws upon many theoretical contributions (Proctor et al. 2013). We would benefit, then, from carefully examining what place means in geography, the scholarly field where the concept of place has been most developed.

There have been many excellent reviews of the notion of place in geography; two I will draw upon to provide a brief summary include Cresswell (2004) and Clifford (2008).<sup>2</sup> In English-language geography, place has been central for nearly a century, dating back to the foundational work of Hartshorne (1939). For Hartshorne and other early geographers, the world was a mosaic of bounded regions or places, each a unique assemblage of forces and perspectives. The task, then, of geography for Hartshorne was to do areal differentiation of places, to interpret their specificities. From the early days in geography, place has been similar to early notions of environment in including, rather than distinguishing, biophysical and human surroundings. This regional approach to geography was thus highly synthetic, though place-specific (idiographic).

The above notion of place in geography fell into disfavor, however, during the 1950s and 1960s, in what is often summarized as the quantitative revolution (Barnes 2004). In the quantitative revolution, not only did numbers and equations rule but a nomothetic priority, where law-like generalizations were key, prevailed over the earlier idiographic impulse. The old regional geography was viewed as dusty and descriptive; the search was on for formalizations and universal generalizations about the earth and its peoples.

The quantitative revolution itself led to multiple reactions in geography, two of which included humanistic and Marxist geography, dating from the 1970s. In humanistic geography, the experience of place again emerged as a key concept; one example is the work of Yi-Fu Tuan (1974, 1977). The Marxist tradition, however, was suspicious of this veneration of place, given its general avoidance of larger political-economic structures that effectively constrain places; Marxist geography (e.g., Harvey 1973), then, emphasized space over place much as did the quantitative revolution, but with a very different politics.

Since at least the 1990s, contemporary uses of the notion of place in geography have labored to weave together not only nature and culture, but attention to both local-level specificities as emphasized in the humanistic tradition, and global-scale structures as emphasized in the Marxist tradition. One early publication that did so was Doreen Massey’s “Global Sense of Place” (1991). As Massey states, a global sense of place is “...a sense of place, an understanding of ‘its character’, which can only be constructed by linking that place to places beyond” (p. 29).

Recent geographic scholarship on place parallels literature on geographical imaginations. As originally formulated by Harvey (1973; cf. Gregory 1996), the geographical imagination was an analog of C. Wright Mills’ sociological imagination (1959), in which a person’s immediate social milieu is situated in a broader structural context; thus to Harvey, the geographical imagination situates individuals and their local senses of place in a broader spatial context—a move Harvey recommended to avoid political naiveté (1990).

This deep, plural history of place in geography results in a rich contemporary usage, and resonates with the surprises and challenges of place suggested in the *New York Times* articles above. Places are now commonly understood in geography as diverse nodes in larger hybrid nature-culture networks; senses of place are now understood as “glocal” identities; and place thus becomes uneven and restless, not stable and timeless. Geographers studying sense of place have no a priori commitment to this being a good thing, as they know that sense of place has bred violent nationalisms in Europe as well as favorable naturalisms in other locations. Places to geographers certainly include local biophysical dynamics, yet they are always about much more than nature and the local.

## Action

This geographically invigorated notion of place deepens and broadens ideas of place-based action that suffuse the environmental movement, and calls for renewed practical reflection on our ESS mandate for ecoliteracy given its historical indebtedness to place. David Orr’s classic writings on ecological literacy placed place front and center: “Ecological literacy is becoming more difficult, I believe, not because there are fewer books about nature, but because there is less opportunity for the direct experience of it...A sense of place requires more direct contact with the natural aspects of a place, with soils, landscape, and wildlife” (Orr 1992, 88–89). What would ecoliteracy as environmental knowledge and practice mean today, if informed by contemporary scholarship on place? Clearly this new terrain of place I have reviewed would suggest a new sense of ecoliteracy as well. Here seem to be some key implications and challenges:

<sup>1</sup> There have been attempts to forge a more cosmopolitan notion of bio-region (Thomashow 1998), but the local and natural still arguably prevail even in these efforts—no matter how much early praise they received from geographers (e.g., Parsons 1985).

<sup>2</sup> The concept of place in geography continues to evolve; see *Progress in Human Geography* (e.g., Jonas, 2012, 2013; Tomaney 2014) for regular review articles covering English-language literature.

1. *Replacing nature.* Though environmental scholars and environmentalists have long called for an ecoliteracy that blends nature and culture, it is the former that has typically been the trump card. Environmentally inspired notions of place and sense of place have privileged nature as the larger circle into which human thought and action must be situated; yet this would change. At the scale of the earth, biophysical processes are indeed prerequisites for human life and flourishing, but the biophysical (and other) arrangements by which humans have flourished in various places are many and varied. Letting go of this trump card means letting go of a naive notion of nature, "...that blend of Greek politics, French Cartesianism, and American parks" (Latour 2004), but also letting go of some separable notion of culture as well. Ecoliteracy and environmentalism become as keenly interested in political and cultural dynamics as in, say, climate and ecology, because they all make a place. This may induce confusion among certain traditional eco-constituencies, but it can also bring on board a wider range of allies.
2. *Replacing the local.* Environmental organizations and ESS programs have often prioritized local-scale action—"think globally, act locally." But what if, as Massey and others have argued, the local and the global are inseparable? Many people still want to make a difference in their nearby surroundings much more than ameliorate the global condition; and though this approach has long received philosophical scrutiny (e.g., Singer 1972), we can imagine that building workable environmental movements will continue to focus on participants' immediate environs. Indeed, contemporary geographical thought on place does not so much challenge the priority of proximity as offer a larger imagination of the wide range of processes and perspectives in space and time that meet—more often, collide—in a particular locale. Perhaps this is what ecoliteracy can become: a deepened knowledge and practice of connections rooted in one's immediate environs that nonetheless do not stop there.
3. *ESS= Everything Studies and Sciences?* One valid objection to the above must be clarified. If indeed place blends nature and culture, the local and the global, what then are the bounds of ecoliteracy, and what are the scholarly bounds of ESS? It would seem to lose its focus, its special voice amidst all the others. Perhaps we could imagine ecoliteracy as proceeding from, and ultimately addressing, the realm of environment we have inherited—say, the nonhuman, or nature, or environmental health, or natural resources, pollution, and so forth. Yet in between these important points of departure and return, the ecoliterate journey may look quite different, and more variegated. Built on contemporary notions of place rather than notions such as nature and the local, ESS can offer a geographically situated approach to traditional

environmental concerns. Much as geographers such as Sack (1992) blend the natural sciences, social sciences, and humanities in their scholarship on place, and Entrikin (1991) blend the local and global (views from "somewhere" and "nowhere") in an approach to place stressing "betweenness," place becomes the hybrid sensibility and process by which an ecoliterate person sheds fresh light on received issues of environment.

My hope here is not only to offer recent intellectual perspectives on place toward reformulating ESS. Perhaps replacing nature and the local could point to a deeper way of dwelling on Earth. If place is fundamentally sensuous as well as how reality comes together, both matter in a renewed approach to ESS. Our students often pursue ESS for valid affective as well as purely cognitive reasons: they feel out of place in this world. Our opportunity, then, is to ground ESS in new ways that will address their full range of needs and desires—and in a place-embracing manner that empowers them to move forward.

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