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# Leave More Trace

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## Abstract

Outdoor educators are adapting practices to respond to the priorities of education for sustainability. New practices are emerging or adopted from elsewhere. In Europe, the American recreational movement of Leave No Trace (LNT) has influenced environmental education programs. LNT has been criticized for encouraging a reduction in environmental impact in wilderness areas while ignoring the more significant impacts of equipment purchase, travel, and modern lifestyles. This paper extends the critiques of LNT, suggesting that it encourages attitudes of a separation from nature. It suggests that the LNT concept is unrealistic and unhelpful in Europe, where most landscapes have experienced the impact of humans for millennia. Inspired by European approaches of human–nature relations, and at a time of need for significant environmental changes, I suggest that educational programs seeking to connect people with nature encourage people to “leave more trace” or, perhaps, to “consider their trace” instead.

KEYWORDS: environmental education; education for sustainability; environmental citizenship

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As the complex interrelationships between culture and nature are better understood, so are the harmful consequences of some human activities on the natural world. Many organizations, projects, and programs have arisen to mitigate this harm or restore the damage done. One such program is the Leave No Trace (LNT) program that began in the United States with the intention of reducing the impact of recreational visitors to wild landscapes. The long-running program has attracted attention worldwide. In North America and Europe, a number of environmental education programs have adopted the approach. This paper reflects on the efficacy of this cultural adoption in a European landscape and considers whether leaving no trace is the appropriate approach for educational organizations to take when seeking to engage their students with environmental concerns.

Many commentators discuss the consequences of the age of modernity and its focus on improving the human condition by raising standards of living. While prosperity has clearly delivered an enhanced lifestyle for more and more people globally, the environment has been treated as a set of unlimited resources (Jackson, 2017). It is increasingly clear that a society based on continued growth on a finite planet will reach limits to that growth. According to Steffen et al. (2015), those limits have already been surpassed in several crucial areas and society is perilously close to surpassing others.

The limits to growth, first recognized in what became known as the Brundtland Report (World Commission on Environment and Development, 1987), have led to campaigns for a more sustainable society living within its means. These campaigns reached a global political peak with the 1992 Rio Declaration on Environment and Development (United Nations, 1992). Jackson (2017) argued for a new definition of prosperity and Clayton et al. (2017) for a new relationship with nature, for people to achieve a sustainable future.

Beery (2014) argued that LNT strengthens the modern view of humans as separate from nature, as it is necessarily predicated on the idea that humans are apart from nature and not a part of nature. Rawles (2010) argued that the concept of separation, a consequence of the ongoing enlightenment project supported in practice by industrialization and urbanization, is an important part of the environmental problem. She suggested that when humans are perceived as apart from nature, nature “matters” less, people care less, and they trash it more.

Discussions worldwide in the field of the outdoors, both recreation and education, are exploring the contribution that can be made to encouraging sustainable human–nature relations (Bonnett, 2004; Cooper, 1998; Henderson & Vikander, 2012; Higgins, 1996; Martin, 2004; Orr, 1991; Ross, Christie, Nicol, & Higgins, 2014; Wattchow & Brown, 2011). As these authors argue, this shift is congruent with the environmental needs of an urbanized, industrialized consumer society that is rapidly globalizing (Alagona & Simon, 2012). Modern life distances the majority of people from experiences in nature. Bonnett (2004) argued that in the rush to protect what is left of nature, humans have set it aside behind boundaries and, in some cases, barriers conceptually excluding us from it and it from us. Minimizing human impact on these protected areas has become the dominant form of action of those concerned about the health of nature. I suggest that, even in attempting to care for nature, humans therefore treat nature as something other than human and consider their impact on it only when they are present in it, that is, in the special places humans have designated as “natural.” The authors above have all argued that separation works against pedagogies of sustainability. The evidence for a different approach, widely termed *connection with nature*, has become well enough established for people to move from Louv’s (2009) call to arms to one that influences government policies (for a UK example, see Lovell’s, 2016, evidence review). The concern for a lack of connection with nature, especially among young people, is gaining traction, rising up educational and political agendas. Many pedagogic approaches that seek to restore the connection have emerged (Bonnett, 2004; Cooper, 1998; Orr, 2004; Waite, Passy, Gilchrist, Hunt, & Blackwell, 2016). Their arguments are various. They include the suggestion that humans evolved in nature and so need to be in it to

flourish (Richardson, McEwan, Maratos, & Sheffield, 2016), biophilia as Wilson (1990) called it; that people learn better in nature; that natural or wild play promotes healthy personal and social development and mental health; that active time in the outdoors promotes physical health; and that embodied, felt, and cognitive experiential knowledge of nature is essential to complement abstract knowledge of the environment, for humans to develop caring attitudes and behaviors (Lovell, 2016).

The LNT program seeks to minimize impact and, I have argued, can be understood as distancing people from rather than connecting people with nature. In this thought piece, I propose the approaches of “leave more trace” or, perhaps, “consider your trace” as alternatives. I intend to examine the efficacy of LNT in North America and in Europe as an approach to environmental education and education for sustainability.

### The “Traces” Left by LNT in the United States

At face value, the LNT ambition seems unquestionably good. However, it has been argued that in many cases, it has either turned a blind eye to the more significant human impacts on nature of visiting a wilderness area or introduced an ethic that could be counter to sustaining rich natural and cultural landscapes.

In the United States, the LNT organization (n.d.) promotes the ethic that will minimize human impact on public lands. The seven principles of the organization focus on human behavior during a visit to public land. They are “plan ahead and prepare,” “travel and camp on durable surfaces,” “dispose of waste properly,” “leave what you find,” “minimize campfire impacts,” “respect wildlife,” and “be considerate of other visitors.” The organization has a big presence on Twitter, Facebook, and YouTube; provides trainer training; and offers various forms of public engagement for those accessing U.S. public lands for recreation. The movement claims to have reached millions of recreational land users. Research has suggested that the messages make a difference to the knowledge and behavior of users. However, there is less evidence for any impact on the quality of the visitor experience or on the land resource itself (Vagias, 2009).

Chambers, Simmons, and Wackernagel (2000) argued that the intention of LNT, while well meaning, ignores the many impacts that are the result of human behavior when not visiting public lands—the ecological and, especially, the carbon footprint of everyday life. More directly, they claimed that LNT ignores the impact of the travel for people to visit public land and the consumption and use of specialist equipment on the trip (e.g., see Orr, 2004, for an environmental education perspective). Arguably, these impacts are far more significant on the health of the ecosystems of public lands and elsewhere. This opens the LNT concept to criticism. Alagona and Simon (2012) pointed out that the reduced impacts claimed by the program are minimal in the context of the wider human footprint on the place visited and the planet as a whole. This challenges the value of LNT as a means of education for sustainability. For example, packing out rubbish from an area, while laudable, is a small contribution when the carbon footprint of travel to the area is ramping up climate change that is a significantly larger threat to the land by several orders of magnitude (Alagona & Simon, 2012; Rawles, 2013). It is similar to the story told by Berners-Lee (2010) of the person discussing with a friend the relative merits of hand towels or electric hand dryers and their respective carbon footprints, while in the bathroom at the airport and about to catch a plane.

To address this issue, Alagona and Simon (2012) argued for an extension of the LNT approach beyond public land and wilderness areas to all landscapes and as a political as well as practical action. While this paper has no argument with Alagona and Simon’s call for human society to reduce some of its “trace” or impact on the planet, I suggest that LNT is inappropriate and may be counterproductive as an environmental education message. Indeed, I argue for a “hands-on” rather than a “hands-off” approach.

## Human “Traces” in the European Landscape

Of course, it can be argued that the LNT approach has value in fragile “wilderness” settings. However, in Europe the areas that can truly be called wild land are few and far between (Agnoletti, 2006). Human relationships with nature in Europe have historically evolved differently than those in the United States. Even the uplands and the Arctic tundra have been grazed extensively, which has led to a current and sometimes fragile balance between people and other species. European national parks are cultural as well as natural places. Humans have left a big footprint over thousands of years, as Phillips (2015) discusses in his comparison of the American wilderness concept with the cultural landscape of the Alps. This contrast might inform a different land ethic to that of LNT, one that could be considered for its contribution to recreational land use and environmental education.

Most of our ecosystems have coevolved with humans as one of the most, and often the most, influential species (Crane, 2016). This has led to centuries of coexistence, sometimes with significant positive impacts on biodiversity. For example, coppiced woodlands (Rackham, 2015) and flower-rich meadows (Peterken, 2013) are some of the most biodiverse habitats in the temperate zone developed in relation to human management over centuries of practice. They support species adapted and specific to them as habitats. These are now considered threatened with old farming and woodland management practices declining. Therefore, these and other similar habitats have become the subject of conservation strategies even though the habitats are, or were, intensively managed by humans. Restoring these old practices has become essential for the health of these rich ecosystems.

In other cases, land management has led to substantial challenges to biodiversity. Some claim that the uplands of the United Kingdom, for example, are overgrazed by intensive sheep farming, which has led to species poor habitats, compared with the mixed and more biodiverse habitats that would emerge under different management plans (Mansfield, 2018).

In both situations, humans are the keystone species. Like the Yellowstone wolves that, upon their reintroduction, restored some of the balance to the ecosystems of that park (Ripple & Beschta, 2003), humans in Europe can be key positive influencers on the quality of ecosystems and biodiversity—or not, as the case may be. It is contextual, as, unlike the wolves, humans are capable of developing different ways of living, not all of which are sustainable. It is human nature—and I use the word *nature* here intentionally—to knowingly construct cultures. At this time, if people need to transform those cultures into sustainable ones, my question is, will this be best served through a hands-off or a hands-on approach?

Both these situations of so-called rich and poor habitats are the result of human management strategies and both will require significant human intervention to be sustained or transformed. In these cases, for humans to protect and sustain the habitats and the wildlife that they have come to value as part of their culture, perhaps the response is better described as leave more trace. Turner (2002) also made this argument, arguing for an approach that engages recreational users in the sustainable use of the natural resources of wild places and, when they do so, could also minimize the material consumption of equipment that is a significant part of the outsourced environmental footprint of a wilderness backpacker carrying tent, stove, and dehydrated meals. Fenton (2016) argued that bushcraft, an educational approach to nature that engages people through the craft of living on the land, minimizes impacts and develops a sustainable land ethic.

## The “Traces” of Environmental Education

The North American approach of LNT, an approach that seeks to encourage care for nature among outdoor recreators, has been adopted by some North American environmental education programs. The National Outdoor Leadership School (n.d.) “[applies] Leave No Trace principles to camping and travel” (Environmental Studies section, para. 1). The LNT approach has also

crossed the Atlantic to Europe. Recreational organizations in Ireland, Scotland, and England offer LNT training programs. A number of environmental education organizations including national educational programs and European-wide outdoor education providers have also adopted these principles of practice. The term *LNT* also describes a principle of practice among professional environmental and outdoor educators. However, different principles, resonant with the different history of humans in the European landscape, are also evident.

The following case study highlights the differences. This UK-wide environmental education charity explicitly uses LNT to articulate its approach to education. However, as it is a program committed to education for sustainability, its actual practice, conducted in urban green spaces and rural neighborhoods as much as in the wilder landscapes of Britain, indicates that the organization practices a different approach to the traces it believes it makes.

### **The John Muir Award: A Case Study of More or Less “Trace”**

The John Muir Award (JMA) is the educational arm of the John Muir Trust, a wilderness charity that promotes and defends the interests of “wild” land primarily in Scotland. Despite its adoption of the LNT approach, the JMA leaves a considerable trace in wild places and in nature more widely through its award scheme. The award scheme encourages groups of people to find, learn about, and do something for a place and then tell others about the place and the work. In a recent study (John Muir Trust, 2016), the JMA claimed (based on a survey of 81% of participants) to have achieved in 1 year

- 63,103 meters of footpaths maintained and created;
- 29,939 square meters cleared of invasive species;
- 8,442 bin bags of litter cleared—more than the capacity of the Olympic Stadium;
- 1,382 meters of hedgerows created;
- 12,553 trees planted;
- 4,692 square meters of ponds restored or created;
- 4,160 meters of fences built or maintained; and
- 18,000 square meters of meadow created.

This is hardly “no trace” and is indeed considerably more trace than a group passing through on a hike might have caused. Indeed, the report claims that, using Heritage Lottery Fund ( a national lottery and JMA funder) figures, the JMA completed £1.3 million worth of work. The difference is, of course, that the group, and in some cases the organization its work supports, considers the trace as the right trace to leave, one enhancing biodiversity and opportunities for people to encounter flourishing habitats.

Of course, the LNT approach is a helpful way to put across the idea that humans should and can minimize their harmful impacts in areas of high natural value. Perhaps one of its strengths is that the scheme makes no judgment about whether that highly valued place is just down the road in a wild patch surrounded by urban landscapes or a continent away in a place with little human settlement.

From this perspective, the JMA, despite adopting LNT, is a good candidate for leave more trace. The same report seems to endorse this view (John Muir Trust, 2016) with a quote from John Muir: “It is not enough for people to be in sympathy with the plight of the natural world, but that they must become ‘active conservationists,’ as campaigners, as practical project workers, as scientists, as artists, as writers” (p. 1).

The evidence suggests that the JMA practices an approach better described as leave more trace, to connect people with nature. Other research by Hayward (2012) suggests that the nature of approaches such as the JMA program do more than connect people with nature. It suggests that levels of engagement such as this lead to pro-environmental attitudes and proactive behaviors

leaving “traces” that, for the participants, reach beyond the direct interventions encouraged by the program into other initiatives and everyday life.

Leave more trace may therefore be a better description of practice and a better guiding ethic for environmental education. However, it also matters what this trace is—consider your trace. It is more about leaving the right trace than none at all. Humans are a keystone species, that is, a species that, through its behaviors, has an impact on the entire ecosystem it inhabits. Leaving only footprints and taking only photographs will not make places “better,” and leaving most places as they are is not an option for any keystone species. While it can be argued that leaving substantially less traces in many aspects of our modern lifestyle is a good, even a necessary, action to take, it can also be argued that many things that require us to leave more trace need to be done. These actions have the added benefit of engaging people with nature in ways that research indicates enhance their environmental values and change behaviors (Hayward, 2012). Such an approach acknowledges that traces are inevitable and encourages debate about what traces are reasonable, proportional, and ethical, and what are not. Perhaps instead, humans should be seeking the restorative approach of living landscapes (Steiner, 2008) in which people intervene to promote the flourishing of humans and other than humans alike. This has implications for resident, recreational, and educational communities in a landscape. As Alagona and Simon (2012) hope, this means leaving more trace will inevitably become political and reach far beyond the arena of protected areas as humans debate what needs and wants should be prioritized in each place and assess the impacts of these choices on the other inhabitants and the ecosystems that sustain both them and us.

## Conclusion

LNT has value in that it alerts recreational users to the need to tread lightly in fragile landscapes and impacts the behaviors of recreational users of such places. However, it does not pay any attention to the wider impacts of human behavior in traveling to wild lands or in everyday life which, in turn, have a far more significant impact on the fragile wild lands and nature everywhere. It has limited value as an ethic for everyday life. This suggests that LNT may not be the best ethic to adopt in environmental education programs, especially those concerned with sustainability or practicing in the significantly less wild landscapes of Europe and much of the rest of North America. Inspired by a different history of human–nature relations in Europe, I argue for an ethic of leave more trace on the basis that this has the potential to connect people and nature in ways that encourage them to consider their trace. The presented case study illustrates how one environmental education program, despite using the LNT rhetoric, has effectively left significant traces that are considered beneficial to people and nature. Further, tentative research findings indicate that such programs could promote proactive, pro-environmental behaviors in everyday life beyond the program. This suggests that an ethic of consider your trace is a more effective guide to and description of effective environmental education in European landscapes and for programs concerned with education for sustainability. This terminology may also be worth consideration for some North American environmental programs.

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