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An educational tool for outdoor education and environmental concern

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The purpose of this paper is to suggest an outdoor education model that respects the need to critically discuss the general belief in a causal relationship between experiences of nature, environmentally-friendly attitudes and behavioural change, but that at the same time respects the legitimate claims on the part of outdoor education practice for concretisation and clarity. The foundation of this model consists of a combination of theoretical perspectives and models that have been generated through a number of Swedish interdisciplinary research projects concerning human inter-relationships with the landscape during the last decade. The paper first focuses on the subtleties of environmental concern with the aid of an environmentally historic model of how care for nature and environmental protection successively developed during the last century. It then addresses different aspects of outdoor education by presenting two specific models: a model of two principally diverse motives for this education, and a model of three different approaches to the landscape when executing outdoor education. In the final section these models are assembled in a suggested model for outdoor education and environmental concern, and identify a handful of main educational paths. The paper concludes with a brief discussion about continued research and examples of what can be regarded as particularly important developments and additions to the suggested model.

Keywords: *Conservation; Nature experience; Sustainable development; Landscape approaches; Conceptual framework*

Introduction

Outdoor education in its widest sense, which includes, for example, adventure education and outdoor learning, has long been regarded as an important tool for public environmental concern (Hammerman, Hammerman, & Hammerman, 2001; Place, 2004; Sandell & Öhman, 2010). Although there are many indications that nature encounters can play a significant role in people's concern for the environment, an oversimplified belief in a general causal relationship between rich experiences of

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nature, environmentally-friendly attitudes and behavioural change can be problematic. There are two reasons for this. The first is that it is difficult to discern any such simple relationship in educational research. In recent decades, several studies have been done on the relationship between outdoor experiences and environmentalism, with an emphasis on the effect that participation in outdoor education has on environmental knowledge, pro-environmental attitudes and behaviour and their inter-connection (cf. Barrett, 2006; Bixler, Floyd, & Hammitt, 2002; Bogner, 1998; Bradley, Waliczek, & Zajicek, 1999; Chawla, 2008; Chawla & Flanders Cushing, 2007; Eaton, 1998; Ewert, Place, & Sibthorp, 2005; Hanna, 1995; Johnson & Manoli, 2008; Kieffer, 1994; Milton & Cleveland, 1995; Nisbet, Zelenski, & Murphy, 2009; Palmer, 1993; Rickinson et al., 2004; Schindler, 1999; Smith-Sebatsto & Cavern, 2006; Wilson, 1996). The findings of these and other studies show that these inter-connections are multifaceted and context dependent and that the success of outdoor education programmes is also related to an individual student's previous experiences and social interactions.

The second reason why an oversimplification might be problematic is that 'environmental concern' can mean many different things. A review of the environmental literature shows that over the years environmental issues have been broadened and deepened to include everything from ethics and rights issues to climate change and environmentally-friendly consumption (Attfield, 1999; Page, 2007; Van DeVeer & Pierce, 1998). What is to be regarded as environmentally 'friendly' and what a 'concern' for the human-nature relation might look like are obviously culturally bound and connected to specific discourses (Stables, 2001). Likewise, as different people and groups differ to a greater or lesser extent with regard to contextual framing, the ambition to pinpoint environmental engagement will always prove difficult. This is a fact that is easily illustrated with broader environmental history perspectives (Glacken, 1976; Worster, 1993). If we include the understanding of concepts such as 'nature' and 'wilderness'—important themes in outdoor education and adventure learning—the need for clarification is obvious (Callicott & Nelson, 1998; Nash, 1982; Oelschlager, 1991; Sandell & Sörlin, 2008; see Figure 1). Environmental issues are also bound up with a growing uncertainty, in terms of both what the right solutions to the problems are and how environmental degradation will affect humans and nature in the future. The increasing complexity of environmental issues is particularly mirrored in concepts like 'sustainability' and 'sustainable development' and how these concepts strive to connect the intersection between ecological, social and economic development with intra-generational and inter-generational justice (Blewitt, 2008; UNESCO, 2005).

Accordingly, if outdoor education practitioners start out from simple causal models when highlighting outdoor education as a path to environmental concern, a critical gap may occur in relation to the complex picture that emerges as a result of research findings and the complexity of environmental and sustainability issues. Such a gap, we believe, prevents outdoor educationalists from making appropriate choices of place, equipment, methods, activities, educational content and so on in relation to students in different aspects of the programme.

In order to contribute to the narrowing of this gap, we suggest an outdoor education model that respects the need to critically discuss 'outdoor education' and 'environmental concern' and the interplay between them.

The foundation of this model consists of a combination of theoretical perspectives and models that have been generated through a number of Swedish interdisciplinary research projects concerning human interrelationships with the landscape during the last decade. These perspectives and models are developed from theories in human geography and development studies emphasising the importance of our landscape relations (Friedmann & Weaver, 1979; Hägerstrand, 1974, 1988; Ingold, 1993; Jones, 2006, 2007; Massey & Jess, 1995; Moore-Colyer & Scott, 2005; Paasi, 2002; Setten, 2006; Tuan, 1974/1990; Whatmoore, 2002), conceptual frameworks of 'nature', 'natural resources' and 'development' (Bahrenberg & Dutkowski, 1993; Glacken, 1976; Hägerstrand, 1991; Hettne, 1994; Macnaghten & Urry, 1998; Naess, 1973; Sörlin, 1991; Worster, 1993) and the close linkages between the evolvement of, on the one hand, modern industrialised and urbanised societies and, on the other hand, outdoor recreation, outdoor education and nature conservation (Adams & Mulligan, 2003; Buijs, 2009; Eichberg, 2009; Eichberg & Jespersen, 1986; Frost & Hall, 2009; McIntyre, Williams, & McHugh, 2006; Manning, 2011; Williams, 2002). The models have continuously been modified in interaction with various empirical materials; for example, low-resource agriculture (for example, Sandell, 1988, 1993), the history of outdoor recreation (Sandell, 1997; Sandell & Sörlin, 2008), physical planning (Emmelin, Fredman, Lisberg-Jensen, & Sandell, 2010), public access (Kaltenborn, Haaland, & Sandell, 2001; Sandell, 2006) and the dilemmas of nature reserves (Fredman & Sandell, 2009; Sandell, 2007; Zachrisson, Sandell, Fredman, & Eckerberg, 2006).

Scandinavian and German didactic theories also influence the ideas behind this model. These didactic theories emphasise the '*bildung*' aspect of education and that teaching always involves the process of selection and organisation of content, as well as the selection of forms and teaching methods (Gundem, 1998; Uljens, 1997). Didactic research investigates the factors that influence teachers' selection and motives and the consequences of different choices in terms of the relation between the teaching and learning of specific knowledge and the socialisation of certain values and views. In recent years, Swedish didactic theory and research have been highly influenced by the way that socio-cultural theory and pragmatic philosophy underline that learning is situated in a certain praxis and emerges from the encounter between the individual's experiences and the social, cultural and physical context (Almqvist et al., 2008; Englund, 2006; Östman, 2010; Säljö, 2009).

The suggested outdoor education model naturally includes a number of basic simplifications and generalisations—which as we all know apply to any attempt to describe a complex interplay between immeasurable social phenomena such as outdoor experiences and environmental concern. However, it has been our ambition to create a model that balances the need for outdoor educationalists to practically orientate their activities in relation to environmental concern with the need to avoid doing this in a vague and—from a research point of view—idealistic way. In this way, the

proposed model can be seen as a ‘didactic tool’ that serves as a guide for outdoor practitioners in their selection of content, place, methods and equipment.

In the outline of the article, we first focus on the subtleties of environmental concern with the aid of an environmentally historic model of how care for nature and environmental protection successively developed during the last century. We then address different aspects of outdoor education by presenting two specific models: a model of two principally diverse motives for this education, and a model of three different approaches to the landscape when executing outdoor education. In the final section we assemble these models in a suggested model for outdoor education and environmental concern and identify a handful of main educational paths. The article concludes with a brief discussion about continued research and examples of what we regard as particularly important developments and additions.

Environmental concern

In this article we describe what we believe to be a relatively reasonable compromise with regard to the need for differentiation and research support, on the one hand, and educational lucidity and practical applicability for a connection between outdoor education and environmental concern, on the other. The traditional picture of the imagined interplay between outdoor experiences and environmental concern can be illustrated as in Figure 1.

In the following, we problematise this picture by discussing its different parts. We begin by detailing ‘environmental concern’; something that corresponds to the ‘defending nature’ image in Figure 1. How environmentally engaged does one have to be to be regarded as ‘environmentally concerned’? Must this include a broad social perspective, or does respect for protected areas, endangered species and nature reserves suffice? To what extent should it also include one’s own lifestyle with regard to consumption, transport and housing, or is producing the right answers to questions about what is politically environmentally correct sufficient? As a rule, different attempts to grade environmental engagement are based on attempts to assess each individual’s environmental engagement (Dunlap & Van Liere, 1978; Dunlap,

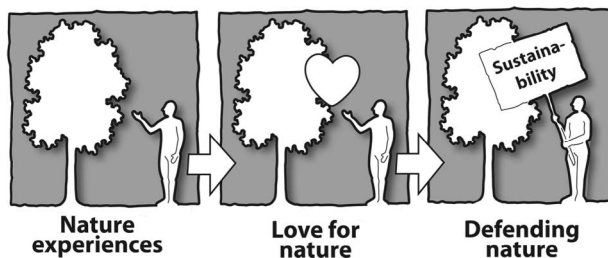


Figure 1. An example of how a traditional picture of the imagined interplay between outdoor education and environmental concern could be illustrated (see the references in the Introduction; adapted from Sandell, 1991). Drawing by Matz Glantz

Van Liere, Mertig, & Emmet Jones, 2000; Johnson & Manoli, 2008; Wiseman & Bogner, 2003), although from a pedagogical perspective it is perhaps just as important to relate one's teaching to the social ambitions of the nature conservation and environmental issues with which one wishes to be associated. One way of illustrating our interest in discussing the different social perspectives of environmental issues at different levels with regard to what being 'environmentally concerned' means is to give an environmentally historic review. In Figure 2 (with Sweden as the main actor but with parallels in other countries) we provide a basic illustration of how environmental concern successively developed and extended during the last century (adapted from Sandell, Öhman, & Östman, 2005). With regard to this history of more extensive and comprehensive perspectives of what today is labelled sustainable development (with a peak during the 1960s and 1970s), examples of general references like Sörlin (1991) and Worster (1993) are relevant.

Nature protection began to emerge around the turn of the twentieth century, and in Sweden, for example, the Swedish Society for Nature Conservation was established in 1909. In that same year the Nature Conservation Act came into force and national parks were introduced. But even though Sweden's national parks were the first in Europe, there was also an earlier international history in which Germany and the USA were important actors as sources of inspiration. In view of our interest in outdoor experiences as a social phenomenon and pedagogy, it is important to identify the strong link between this interest in nature protection and the growth of nature

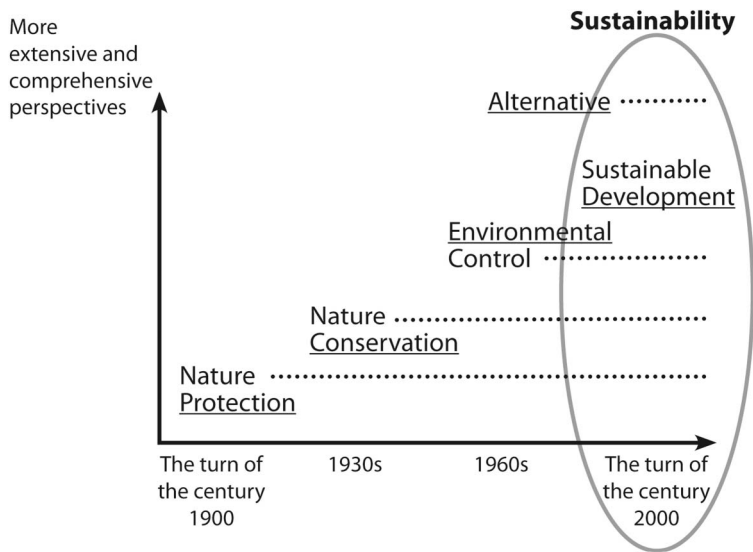


Figure 2. Some of the main themes in the growth of modern environmental concern and where the concept of sustainability can be seen as something that includes previous discussions but also implies a continuing power struggle between sustainable development as a globalised version of environmental control and a socially critical alternative progress (adapted from Sandell et al., 2005). Drawing by Matz Glantz

tourism. This was not just about the new possibilities for the urban upper class to travel to the countryside by train and steam boat, but was also a question of how a new way of relating to the landscape was established—being interested in nature and voluntarily searching for more primitive and close-to-nature experiences. This approach was partly inspired by Romanticism's interest in the wild and natural and is something that we today connect with outdoor recreation, nature tourism and outdoor education. In short, we see the establishment of a nature and landscape perspective where certain areas (national parks, 'wilderness'), places and objects (natural monuments, landmarks, preserved species) in the landscape are protected from the large-scale and increasingly dramatic changes that industrial society implies.

Parallel to a successive democratisation in terms of universal suffrage, the general public's leisure-based relations with nature also expanded. More attention was paid to local landscapes, women and children were activated, and interest in nature became less adventurous and less science-oriented. Increased urbanisation and statutory holidays led to a shift away from smaller groups of society's higher economic class having exclusive contact with nature towards the inclusion of broader groups. At the same time, ideas about nature protection also moved in the direction of *nature conservation* and to seeing people as collaborating in the formation of the landscape. There was an increased interest in which landscape values were worth preserving and whether these values were culture-related, such as enclosed pasturelands and hayfields. Simply saving or protecting certain natural values was no longer sufficient. Instead, they had to be looked after and sometimes protected from the forces of nature (such as a meadow becoming overgrown if it is not used).

After the Second World War the industrial West experienced a rapid material growth. Private motoring made a serious breakthrough and became a classic symbol of material welfare—and more recently also an important symbol for environmental problems. With regard to nature and environmental issues, it became increasingly obvious that they could not be isolated to certain places, areas and species, and instead we saw a growing interest in a more systems ecology perspective. Environmental debates and environmental education were mingled with concepts such as 'food chains', 'ecosystems' and 'cycles'. In this atmosphere of systematic and more overarching approaches we also find authorities and legislation turning more towards *environmental control*.

Despite this interest in a systems ecology perspective, up to the 1970s the nature conservation discussion and the environmental protection discussion were primarily a question of 'dealing with the symptoms'. The negative side effects of industrialism were regarded as serious—hydroelectric dams, refuse tips, food-chain pollution and deforestation. Legislation, research and government agency supervision were all attempts to do something about these negative side effects. But the development itself, the modern project's prioritisation of material growth, urbanisation and industrialisation were not generally challenged. There had been a few critical voices, from the civilisation critics of the nineteenth century to the alarmists of the 1950s and 1960s, although it was during the 1970s that the modern criticism of development objectives really gathered speed. In particular, based on a general radicalisation with

international overtones, we experienced a rapid increase of new environmental and alternative movements questioning modern mainstream development and searching for *alternative* development objectives, where international solidarity, responsibility for future generations, quality of life and non-material values were pitted against the prevailing social development prioritisation of short-term material consumption.

Since the 1992 United Nations conference in Rio, '*sustainable development*' has been a key concept with regard to environmental and nature conservation issues. But how radical (widespread/deep) is this concept if we compare it with earlier perspectives (nature protection, nature conservation, environmental control and critical alternatives)? That it is a significantly more radical perspective than nature protection, nature conservation and environmental control is fairly obvious; although with regard to the relation to critical alternative thinking, it is much more doubtful. On the one hand, it can be said that the concept of sustainable development has a clear international dimension, and that in this sense we have gone beyond the national perspective that generally dominated environmental control ambitions. On the other hand, there is no doubt that many actors try, using concepts like eco-modernisation (Hajer, 1995; Læssøe, 2010) to connect to the discussion about the need for sustainable development without needing to pay too much attention to the critical alternative's demands to reconsider the goals and content of a society imprinted by a liberal market economy.

An illustration of this tension in the aspiration for a sustainable future—a globalised version of environmental control dealing with the symptoms and the demands of critical alternative thinkers for fundamental reconsiderations—is the late Norwegian philosopher Arne Naess' (1973, 1989) distinction between 'shallow' and 'deep' ecology. In addition to what the shallow movement advocates, the deep ecology movement also demands, for example, a classless society, autonomy, decentralisation, self-sufficiency, the protection of different cultures and respect for life. One way of describing the positions and contents of sustainability today is to see it as a continuing power struggle between different versions of these two perspectives (shallow and deep ecology). It is thus a question of how radical the changes need to be in order to create a sustainable future.

To summarise, we have a situation where 'being environmentally engaged' can be said to consist of elements of the various main themes that we have described as characteristic of a growing environmental engagement (Figure 2). So, when we today speak about the consensus-like concept of 'sustainability', it actually hides important ideological tensions between 'sustainable development' (solutions within the system) and 'alternative progress' (a change of system).

Outdoor education

Like 'environmental concern', 'outdoor education' ('nature experiences' in Figure 1) is a comprehensive concept with many different purposes, attitudes and forms. In order to address the subtleties of outdoor education, we discuss two aspects of this educational concept: different kinds of motives and different kinds of landscape approaches.

Motives

There are two basically different ways of motivating outdoor experiences. The first is that outdoor experiences have *instrumental values*; that is, they are a good means for different purposes, such as physical and mental health, group solidarity and a feel for nature. In this case the valuable outcomes of outdoor experiences are basically separated in both time and space from the outdoor activities. The second way of motivating is that there is an *intrinsic value* or quality of life in outdoor experiences; for example, an affiliation with nature and a sense of humility towards the various non-human forces that can be experienced outdoors. Here the values are inseparably bound up with the outdoor experiences themselves and cannot easily be found in the milieus and lifestyles of urbanised modern society.

These fundamental perspectives (intrinsic values and/or means; Figure 3) can be traced in different ways in the development and motives of modern outdoor recreation (Manning, 2011; Sandell & Sörlin, 2008). The intrinsic values of outdoor experiences can constitute important reasons for many people's more spontaneous outdoor recreation. But here we could also mention the proposed role for intrinsic values with regard to environmental engagement in line with the outdoor recreation perspective inspired by the Norwegian deep ecology movement, where pleasure and the feeling of being at home in nature inspire a lifestyle in line with a radical sustainability as something natural and obvious, rather than a sacrifice (Faarlund, 1990; Henderson & Vikander, 2007; Reed & Rothenberg, 1993). At the same time, outdoor experience as a way of guarding against ill-health, as a means of 'team-building' and as a way of developing ecological knowledge, is constantly emphasised. An important difference between outdoor experiences as means and as intrinsic values is that in the former case there are often many alternative educational paths besides outdoor

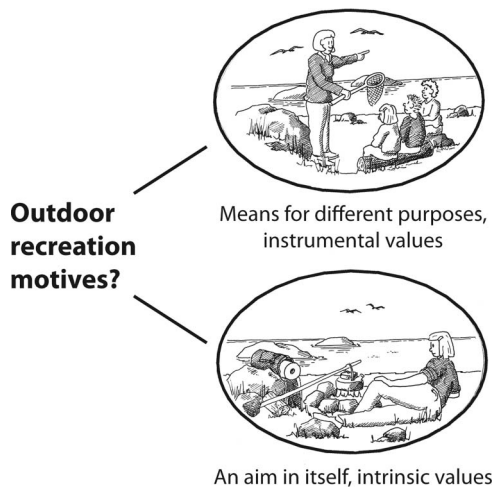


Figure 3. Outdoor recreation as a *means* for different purposes and as an *aim in itself* (adapted from Brügge, Glantz, & Sandell, 2007). Drawing by Matz Glantz

recreation—such as films, literature and discussions when it comes to environmental education. However, in terms of the intrinsic values of outdoor experiences, they are neither found anywhere else nor replaced by anything else, which means that no educational paths other than outdoor experience in its widest sense are on offer. It is also important to note that in practice no strict dualism is to be found between outdoor experiences as means and as intrinsic values; it is more a matter of balancing the educator's primary goals in a given situation. When the balance is in favour of intrinsic values, the aim is to provide a place for the 'voice of nature'. Hopefully, the outcome of this is a sense of the presence of nature. When the balance is in favour of instrumental values, the aim is that these will be fulfilled.

Landscape approaches

When describing the subtleties of outdoor education as elements in an environmental concern model, we also need to include its *landscape approach*. We begin by briefly outlining what we mean by the concept 'landscape approach', and in this make use of a conceptual framework that was previously used as an analysis tool to discuss different fundamental alternatives—different ecostrategies (strategies for nature relation and landscape relation)—with regard to, for example, low-resource agriculture, nature reserves, public access and nature-based recreation and tourism (Sandell, 1988, 2006, 2007). The ecostrategic conceptual frame tries to include the aspects of *what* one does and *why* one does it in the form of which landscape relation outdoor education has. The conceptual framework illustrates a probability field with the aid of two fundamental choices (Figure 4): the choice between starting out from a certain activity/function or starting out from a certain landscape/place (left–right in the diagram), and the

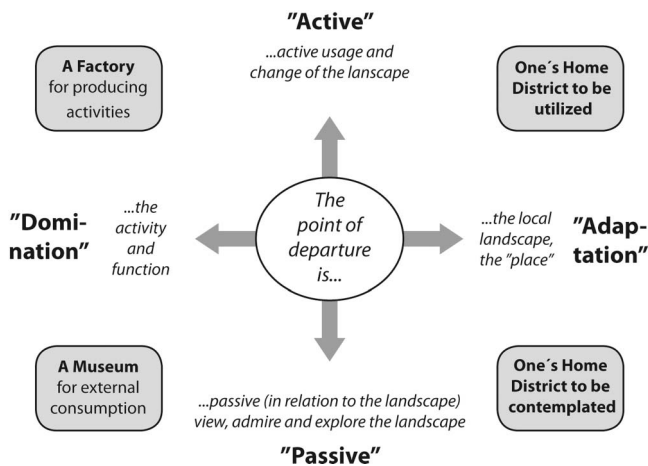


Figure 4. An ecostrategic conceptual frame for the analysis of fundamental approaches to nature and landscape (adapted from Sandell, 2007). Drawing by Matz Glantz

choice between having a positive outlook on human change of the landscape *or* wanting to preserve and protect from (new) human impact (up–down in the diagram). With a focus on outdoor aspects, the diagram's diagonals in the form of four fundamental ecostrategies can thus be described as in the figure ('A Factory . . .', etc.).

The ecostrategy at the bottom left ('a museum for external consumption') relates to a large-scale (often at global level) identification of specific landscape values based on biodiversity, sites of scientific interest, tourism or cultural identity. Attempts are made to 'freeze' and 'preserve' these values, which can be mainly nature-based values (such as a rainforest or nesting site) or mainly culture-based values (like Egypt's pyramids or a medieval wooden building) or combinations of these (like an enclosed pasture or the World Heritage Site of Laponia). But indeed, the more that people's active influence is required for the preservation of values (changes in nature's processes always affect human 'cultural impressions' in the landscape), the further up the diagram one goes.

At the top left ('a factory for producing activities') we find an ecostrategy that implies an active change and an active use of the landscape based on specialised purposes and activities. Greater efficiency, specialised equipment, long-distance transport and high energy consumption are common characteristics. Concerning the recreational use of the landscape, this landscape is sought out—this refers to both the 'museum' and the 'factory'; and in the case of the latter, the landscape is also rebuilt (or even constructed in an indoor hall) in order to provide what these activities need, such as slalom slopes, climbing walls and adventure pools.

The top right ('one's home district to be utilized') is based on a specific local natural and cultural landscape and its characteristics as something that one can and ought to use for a number of different purposes. Here, home district is used (as in 'to be contemplated' at the bottom right) to indicate a place with which one can easily identify. This is often the place in which one lives, although upbringing and leisure can also be important and cover both town and country. With regard to more obvious outdoor leisure-related activities, here we find lots of hunting and fishing (and in the case of tourism, paying to be invited into someone's home district) as well as berry-picking and mushroom-picking or making a campfire with wood from the site.

The fourth ecostrategy ('one's home district to be contemplated') also refers to the landscape with which one identifies, but this time without actively wanting to affect and change it. Here we mainly find people's everyday contact with their local landscape. In this context, contemplation can be something as passive as the view from a window, or it can be active like cycling, jogging, hiking, skiing and walking the dog. But the basic approach here is that one uses the landscape as it is and has no intention of influencing or changing it.

This overarching ecostrategic conceptual framework can be used to illustrate some of what we consider as the main fundamental outdoor education approaches—*how* one carries out the outdoor activities when motives largely relate to the instrumental or intrinsic values outlined above. These fundamental approaches also have parallels in different educational ambitions when it comes to the relation to nature and landscape. Applied in this way, we first of all have a choice (along the horizontal axis) that

is concerned with *which type of landscape one seeks for one's activities*. This choice naturally depends on the extent to which one (towards the right in the diagram) starts out from the place or area that one is already involved in and with as an educationalist—for example, the school playground and the urban forest—or whether one (to the left) considers it important to seek out special ‘frozen’ or ‘constructed’ places with well-defined functions—for example, outdoor facilities, nature trails, reserves, nature schools and visitor centres. The orientation along the vertical axis relates to the interest one has in *actively utilising, changing and influencing the landscape* or whether the interest is more concerned with *passively enjoying, contemplating and simply being in the landscape* (even if one is active in it). However, it should be noted that Figure 4 is not simply a rectangular diagram with dichotomous conceptual pairs and four clear-cut positions, but rather represents a dynamic stress field with various strong tendencies in the direction of the arrows.

However, when one is in place as an outdoor pedagogue in the chosen landscape according to the above choices, the landscape strategies can be reduced to three. The reason for this is that if we do not want to actively affect the landscape but instead strive towards an approach in line with the lower half of the diagram (‘a museum’ or ‘one’s home district to be contemplated’), the practical educational practice is similar for them both. That it is not possible to combine the outdoor styles indicated to the right and left in the top half of the diagram is due to the fact that these strategies include actively changing and influencing the landscape so that the landscape is also changed and governs which types of activities one should do and which equipment one ought to use. The outdoor pedagogue thus has to align with the landscape use on offer. For example, undertaking a wilderness tour within a slalom setting or shooting birds from the birdwatchers’ hide is hardly advisable! Figure 5 illustrates these three remaining fundamental (outdoor) educational landscape approaches (the three small black arrows in the diagram) that are applicable when in place in the landscape.

These three landscape approaches mean choices and ramifications in terms of equipment, view of nature, leadership perspective, environmental consequences and so on, and can be summarised as follows:

- *Active domination*, where the landscape is regarded as a ‘factory’ that should be adapted to the activity by means of different settings and requirements (ski facilities, adventure lands, climbing walls) in order to produce the prerequisites the pedagogue is looking for.
- *Active adaptation*, where the activity is subordinate to the landscape (in terms of topography, time of year and weather) at the same time as one readily utilises and changes the landscape (hunting, fishing, log fires).
- *Passive adaptation* (when the ecostrategies of ‘museum’ and ‘home district to be utilised’ imply similar kinds of activities when one is in place in the chosen landscape), where one passively, in relation to the landscape one is in, contemplates, studies and copes with the landscape and its accompanying topography, season, weather and animals. Note that this outdoor approach can be very active for the practitioner who might have to deal with long hikes and bad weather, but is still

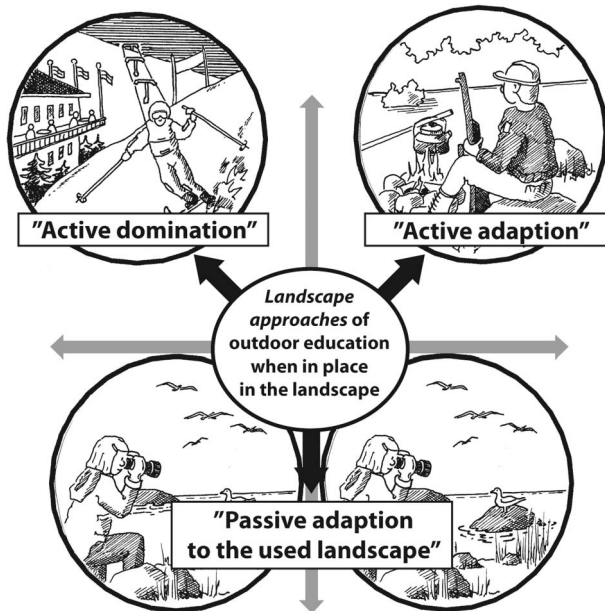


Figure 5. The ecostrategic conceptual frame's placing of three fundamental educational approaches with regard to the choice of activities, equipment and so on, in place in a certain landscape. See also the text (adapted from Brüggge et al., 2007). Drawing by Matz Glantz

passive with regard to changes to the landscape. The ideal is that nobody will know that you have been there.

An educational tool for outdoor education and environmental concern

In Figure 6 we have combined the subtleties of 'environmental concern' and 'outdoor education' that we outlined earlier—from 'nature protection' to 'sustainability' and as 'instrumental values' or 'intrinsic values'—plus our division into our three different landscape approaches of outdoor education.

Figure 6 also illustrates what we consider to be the five main outdoor education paths in work for sustainability, and which we describe in more detail below. Path 1 is how 'outdoor pedagogic bridges' use outdoor contexts for deepening environmental engagement in the direction of sustainability. This path takes its point of departure in the 'instrumental values of outdoor experiences' and is about using different outdoor contexts as a basis for discussions, experiences and illustrations of issues relating to people's relations with nature and the environment. Examples of such pedagogic bridges towards more extensive and comprehensive environmental perspectives include: investigating and highlighting people's landscape influence (e.g. in an environmentally historical frame of reference) that illustrates the importance of including not only a protection but also a conservation perspective by means of a bridge from the first type to the second type of environmental engagement; using place-related

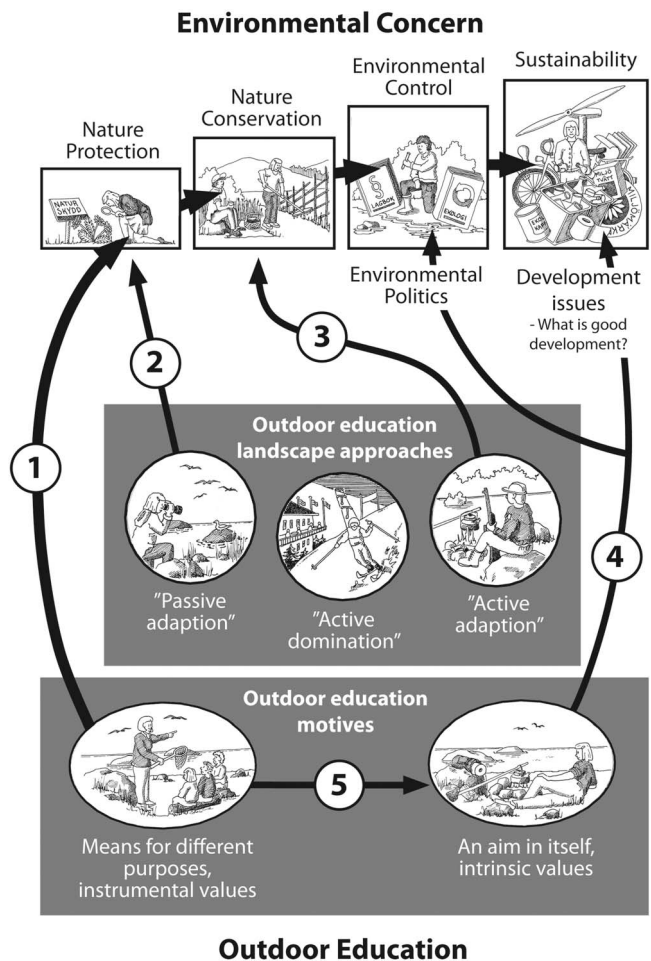


Figure 6. A model for outdoor education and environmental concern including the subtleties of ‘environmental concern’, ‘landscape approaches’ and ‘motives’ as well as five main environmental educational paths (adapted from Brügge et al., 2007). Drawing by Matz Glantz

illustrations (e.g. inspired by systems ecology) of the society–environment interdependency to highlight the significance of deepening environmental engagement in line with environmental control that clearly includes human society with cities and transport; and where environmentally ethical reflections and discussions based on outdoor-related experiences and contexts can ‘bridge’ environmental control and sustainability. This can include reflections about who has the right to what in relation to others—other species, future generations or vulnerable people in today’s development countries—and what are considered reasonable development objectives and what constitutes quality of life with regard to material consumption and experiences. Again, outdoor-related experiences and situations are often excellent frames of reference for reflections about human ecology and development-related questions

such as ‘what kind of material welfare is necessary?’ and ‘how are material resources related to quality of life and ethical considerations?’ It is important that these outdoor recreation pedagogic bridges indicate the relevant dynamics, including opportunities and possibilities, so that threatening environmental *problems* do not obscure positive outdoor recreation experiences. ‘Barriers’ to proceeding with environmental protection in the direction of sustainability can include a resistance to ‘political’ issues, or interpreting advocates as having too radical a perspective.

With regard to the utilisation of the landscape, the outdoor approach of ‘passive adaptation’ can be an important source of inspiration in terms of wanting to protect animal species, plants or places from human impact in accordance with an environmental protection perspective (path 2). This is a basic mechanism in line with: ‘I like *this* place and I do not want it to be destroyed’.

The ‘active adaptation’ approach can be an important source of inspiration for a nature-conservancy perspective (path 3). The basic mechanism here could be described as: ‘I want to continue this hunting, fishing, berry-picking, and these landscape values in *this* place must be maintained’.

Outdoor education motives in line with the ‘intrinsic values of outdoor experiences’ have traditionally served as an important source of inspiration with regard to a more radical environmental engagement that includes power issues and social planning (path 4). But ‘environmental politics’ (e.g. the need for legislation and economic control measures) and ‘development issues’ are indicated in the diagram as main sources of inspiration for the perspectives of environmental control and sustainability, although we believe that a direct personal encounter with nature could be regarded as an important extra and complementary path. This is due to the fact that ‘intrinsic values of outdoor experiences’ often indicate values that contrast with the conventional view of development in terms of material consumption, and therefore raise basic questions about the sustainability of ‘a good development’ (see Sandell & Öhman, 2010).

Outdoor experience as ‘a means’ can also give rise to the perspective of outdoor experience as ‘an aim in itself’ (path 5). As an outdoor pedagogue this is very much about capturing the moment; where the intrinsic value of contact with nature is given a place in outdoor activities even though it is in general motivated by different specific purposes (team-building, science, environment, self-reliance). It is also about nurturing more extensive and comprehensive environmental perspectives. This brings us back to the basic mechanisms indicated in connection with path 4, above, and the need to feel at home in nature as a way towards a deeper environmental engagement. It is about the possibility of discovering outdoor experience as an important recreational quality and ideal that can pave the way for an environmental concern that is much deeper and more far-reaching than anything that factual information and political debate could ever provide. This mechanism could be described as the fact that the peace, tranquillity and complementary scales of time and space to be found in nature provide inspiration and reference frames that could put mainstream society into perspective and lead to reflections about the need for alternative progress (see Sandell & Öhman, 2010).

By way of conclusion, we would also like to draw attention to the outdoor education paths that are *not* indicated in our model. For example, we can see that the outdoor approach ‘active domination’ (in Figure 5) is not marked as an environmental education path to any of the different types of environmental concern. Even though there might be various reasons for an outdoor activity like downhill skiing, the lack of an arrow from ‘active domination’ indicates that there is no belief in this landscape approach as an inspiration for environmental concern. We also note that when it comes to the two more comprehensive environmental perspectives of environmental control and sustainability, we do not regard outdoor education as the main educational path. Here we see environmental politics and development issues as being more central, and therefore need to consider how they can be substantiated in decisive ways by experiencing the intrinsic values of outdoor activities. A background to this ‘indirect’ argument for the role of outdoor activities in a more overarching environmental perspective is the urban, political and social focus of the modern environmental movements of the 1970s, where personal nature experiences were not a major issue. At the same time, experiences of the intrinsic values of outdoor recreation might prove to be both inspirational and deep enough to deal with the environment debate’s constant oscillation due to new research findings and changes in recommended solutions.

Discussion

In this paper we have presented a proposal for a model of outdoor education and environmental concern based on the ambition to respect the complexity of the inter-relationship and the difficulties of claiming simple causal connections, on the one hand, and to emphasise the importance of clarity about the management of practical outdoor education activities with sustainability ambitions, on the other. We have done this by first of all describing the subtleties of ‘environmental concern’ in terms of four environmentally historical, inspired approaches: nature protection, nature conservation, environmental control and sustainability, with successively increasing demands for breadth and depth, and where sustainability is seen as a continuous tension between a globalised version of environmental control in terms of ‘sustainable development’ and a critical ‘alternative progress’ perspective. We then described the subtleties of outdoor education, first of all with the aid of two specific motives—namely, means for different purposes (instrumental values) and an aim in itself (intrinsic values)—and then with the help of three landscape approaches when in place, here referred to as active domination, active adaptation and passive adaptation. Finally, we outlined five main environmental education paths for outdoor recreation based on these descriptions and linked them together.

It is of course possible to question whether this is an optimal balance between research-based subtleties and educational simplicity. However, we consider that any alternative suggestions should be tested against what we see as very legitimate claims on the part of outdoor education practice for concretisation and clarity. With regard to continued research, it would be interesting to even more systematically plot previous research and see whether and how this strengthens or weakens this proposed model.

It would also be interesting to contribute to the ongoing work with empirical studies of different sub-aspects of this educational tool. For example—and with the possibility of both quantitative and qualitative efforts—to study how and to what extent outdoor education efforts that prioritise the intrinsic values of outdoor experiences, in line with path 5, outlined above, also give rise to a more extensive, robust and comprehensive perspective on environmental issues.

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References

- Adams, W. M., & Mulligan, M. (Eds.). (2003). *Decolonizing nature: Strategies for conservation in a post-colonial era*. London: Earthscan.
- Almqvist, J., Kronlid, D., Quennertstedt, M., Öhman, J., Öhman, M., & Östman, L. (2008). Pragmatiska studier av meningsskapande [Pragmatic studies of meaning-making]. *Utbildning & Demokrati*, 17(3), 11–24.
- Attfeld, R. (1999). *The ethics of the global environment*. Edinburgh: Edinburgh University Press.
- Bahrenberg, G., & Dutkowski, M. (1993). An ecoregional strategy towards a fault-tolerant human–environment relationship. In D. Steiner & M. Nauser (Eds.), *Human ecology: Fragments of anti-fragmentary views of the world* (pp. 285–295). London: Routledge.
- Barrett, M. J. (2006). Education for the environment: Action competence, becoming, and story. *Environmental Education Research*, 12(3–4), 503–511.
- Bixler, R. D., Floyd M. F., & Hammitt, W. E. (2002). Environmental socialization: Quantitative tests of the childhood play hypothesis. *Environment and Behavior*, 34(6), 795–818.
- Blewitt, J. (2008). *Understanding sustainable development*. London: Earthscan.

- Bogner, F. X. (1998). The influence of short-term outdoor ecology education on long-term variables of environmental perspective. *Journal of Environmental Education*, 29(4), 17–30.
- Bradley, J. C., Waliczek, T. M., & Zajicek, J. M. (1999). Relationship between environmental knowledge and environmental attitude of high school students. *Journal of Environmental Education*, 30(3), 17–21.
- Brügge, B., Glantz, M., & Sandell, K. (Eds.). (2007). *Friluftslivets pedagogik: för kunskap, känsla och livskvalitet* [The pedagogy of outdoor life: For knowledge, affection and quality of life] (3rd rev. ed.). Stockholm: Liber.
- Buijs, A. E. (2009). Lay people's images of nature: Comprehensive frameworks of values, beliefs, and value orientations. *Society and Natural Resources*, 22(5), 417–432.
- Callicott, J. B., & Nelson, P. M. (Eds.). (1998). *The great new wilderness debate*. Athens, GA: The University of Georgia Press.
- Chawla, L. (2008). Participation and the ecology of environmental awareness and action. In A. Reid, B. B. Jensen, J. Nikel, & V. Simovska (Eds.), *Participation and learning perspectives on education and the environment, health and sustainability* (pp. 90–110). Dordrecht: Springer.
- Chawla, L., & Flanders Cushing, D. (2007). Education for strategic environmental behaviour. *Environmental Education Research*, 13(4), 437–452.
- Dunlap, R. E., & Van Liere, K. D. (1978). The 'new environmental paradigm': A proposed measuring instrument and preliminary results. *Journal of Environmental Education*, 9(4), 10–19.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Emmet Jones, R. (2000). New trends in measuring environmental attitudes: Measuring endorsement of the new ecological paradigm: A revised NEP scale. *Journal of Social Issues*, 56(3), 425–442.
- Eaton, D. (1998). *Cognitive and affective learning in outdoor education*. Toronto: Department of Curriculum, Teaching and Learning, University of Toronto.
- Eichberg, H. (2009). Outdoor activities and landscaping: Understanding natures in the plural. *Sport, Ethics and Philosophy*, 3(2), 193–214.
- Eichberg, H., & Jespersen, E. (1986). *De grønne bølger, traek af natur- og friluftslivets historie* [Green waves, traits in the history of outdoor recreation]. Slagelse, Denmark: Bavnepanke, Gerlev Idrætshøjskole.
- Emmelin, L., Fredman, P., Lisberg-Jensen, E., & Sandell, K. (2010). *Planera för friluftsliv: Natur, samhälle, upplevelser* [Planning for outdoor recreation: Nature, society, experiences]. Stockholm: Carlssons.
- Englund, T. (2006). New trends in Swedish educational research. *Scandinavian Journal of Educational Research*, 50(4), 383–396.
- Ewert, A., Place, G., & Sibthorp, J. (2005). Early-life outdoor experiences and an individual's environmental attitudes. *Leisure Sciences*, 27(3), 225–239.
- Faarlund, N. (1990). Om møtet med fri natur som metode i miljøundervisningen [On the encounter with nature as a method in environmental education]. *Mestrefjellet*, 37, 21–23.
- Fredman, P., & Sandell, K. (2009). 'Protect, preserve, present'—The role of tourism in Swedish national parks. In W. Frost & M. C. Hall (Eds.), *Tourism and national parks: International perspectives on development, histories and change* (Contemporary geographies of leisure, tourism and mobility, pp. 197–207). London: Routledge.
- Friedmann, J., & Weaver, C. (1979). *Territory and function*. London: Edward Arnold.
- Frost, W., & Hall, M. C. (Eds.). (2009). *Tourism and national parks: International perspectives on development, histories and change* (Contemporary geographies of leisure, tourism and mobility). London: Routledge.
- Glacken, C. J. (1976). *Traces on the Rhodian shore: Nature and culture in western thought from ancient times to the end of the eighteenth century*. Berkeley: University of California Press.
- Gundem, B. B. (1998). *Understanding European didactics – An overview* (Report No. 4). Oslo: Institute for Educational Research, University of Oslo.
- Hägerstrand, T. (1974). On socio-technical ecology and the study of innovations. *Etnologia Europaea*, 7(1), 17–34.

- Hägerstrand, T. (1988). Krafter som format det svenska kulturlandskapet [Forces that formed the Swedish cultural landscape]. In B. Heurling (Ed.), *År 1988:35, Mark och vatten år 2010* [Land and water in the year 2010] (pp. 16–55). Stockholm: Bostadsdepartementet.
- Hägerstrand, T. (1991). Tillkomsten av nationalparker i Sverige: En idéns väg från ‘andskap’ till landskap [The establishment of national parks in Sweden: From ‘breathing space’ to landscape]. *Svensk Geografisk Årsbok*, 67, 83–96.
- Hajer, M. A. (1995). *The politics of environmental discourse*. Oxford: Clarendon Press.
- Hammerman, D. R., Hammerman, W. M., & Hammerman, E. L. (2001). *Teaching in the outdoors*. Danville, IL: Interstate Publishers.
- Hanna, G. (1995). Wilderness-related environmental outcomes of adventure and ecology education programming. *Journal of Environmental Education*, 26(1), 21–33.
- Henderson, B., & Vikander, N. (Eds.). (2007). *Nature first: Outdoor life the Friluftsliv way*. Toronto: Natural Heritage Books.
- Hettne, B. (1994). The future of development studies. *Forum for Development Studies*, 1–2, 41–71.
- Ingold, T. (1993). The temporality of the landscape. *World Archaeology*, 25(2), 152–174.
- Johnson, B., & Manoli, C. C. (2008). Using Bogner and Wiseman’s model of ecological values to measure the impact of an earth education programme on children’s environmental perceptions. *Environmental Education Research*, 14(2), 115–127.
- Jones, M. (2006). Landscape, law and justice—Concepts and issues. *Norwegian Journal of Geography*, 60(1), 1–14.
- Jones, M. (2007). The European landscape convention and the question of public participation. *Landscape Research*, 32(5), 613–633.
- Kaltenborn, B., Haaland, H., & Sandell, K. (2001). The public right of access—Some challenges to sustainable tourism development in Scandinavia. *Journal of Sustainable Tourism*, 9(5), 417–433.
- Kieffer, L. A. (1994). *The effects of a four-day residential environmental camp on the attitudes and knowledge of fifth graders*. Eugene, OR: Microform Publications, International Institute for Sport and Human Performance, University of Oregon.
- Læssøe, J. (2010). Education for sustainable development, participation and socio-cultural change. *Environmental Education Research*, 16(1), 39–57.
- Macnaghten, P., & Urry, J. (1998). *Contested natures*. London: Sage.
- Manning, R. E. (2011). *Studies in outdoor recreation: Search and research for satisfaction* (3rd ed.). Corvallis: Oregon State University Press.
- Massey, D., & Jess, P. (Eds.). (1995). *A place in the world? Places, cultures and globalization*. Oxford: The Open University.
- McIntyre, N., Williams, D. R., & McHugh, K. E. (Eds.). (2006). *Multiple dwelling and tourism: Negotiating place, home and identity*. Wallingford: CABI Publishing.
- Milton, B., & Cleveland, E. (1995). Changing perceptions of nature, self, and others: A report on a park/school program. *Journal of Environmental Education*, 26(3), 32–40.
- Moore-Colyer, R., & Scott, A. (2005). What kind of landscape do we want? Past, present and future perspectives. *Landscape Research*, 30(4), 501–523.
- Naess, A. (1973). The shallow and the deep, long-range ecology movement: A summary. *Inquiry*, 16(1), 95–100.
- Naess, A. (1989). *Ecology, community and lifestyle: Outline of an ecosophy* (D. Rothenberg, Trans.). Cambridge: Cambridge University Press. (Original work, *Økologi og filosofi*, published 1973).
- Nash, R. (1982). *Wilderness and the American mind* (3rd ed.). New Haven, CT: Yale University Press.
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale. Linking individuals’ connection with nature to environmental concern and behavior. *Environment and Behavior*, 41(5), 715–740.
- Oelschlaeger, M. (1991). *The idea of wilderness: From prehistory to the age of ecology*. New Haven, CT: Yale University Press.

- Östman, L. (2010). Education for sustainable development and normativity: A transactional analysis of moral meaning-making and companion meanings in classroom communication. *Environmental Education Research*, 16(1), 75–93.
- Paasi, A. (2002). Place and region: Regional worlds and words. *Progress in Human Geography*, 26(6), 802–811.
- Page, E. A. (2007). *Climate change, justice and future generations*. Cheltenham: Edward Elgar.
- Palmer, J. A. (1993). Development of concern for the environment and formative experiences of educators. *Journal of Environmental Education*, 24(3), 26–30.
- Place, G. (2004). Youth recreation leads to adult conservation. *National Recreation & Park Association*, 39(2), 29–36.
- Reed, P., & Rothenberg, D. (Eds.). (1993). *Wisdom in the open air: The Norwegian roots of deep ecology*. Minneapolis: University of Minnesota Press.
- Rickinson, M., Dillon, J., Teamey, K., Morris, M., Choi, M. Y., Sanders, D., & Benefield, P. (2004). *A review of research on outdoor learning*. Shrewsbury: Field Studies Council Publications.
- Säljö, R. (2009). Learning, theories of learning, and units of analysis in research. *Educational Psychologist*, 44(3), 202–208.
- Sandell, K. (1988). *Ecostrategies in theory and practice: Farmers' perspectives on water, nutrients and sustainability in low-resource agriculture in the dry zone of Sri Lanka* (Linköping Studies in Arts and Science 19). Linköping: Linköping University.
- Sandell, K. (1991). 'Ecostrategies' and environmentalism: The case of outdoor life and friluftsliv. *Geografiska Annaler*, 73B(2), 133–141.
- Sandell, K. (1993). Farmers' eco-strategies with regard to water, nutrients and sustainability: A case-study of low-resource agriculture in the dry zone of Sri Lanka. *Geografiska Annaler*, 75B(3), 163–176.
- Sandell, K. (1997). Naturkontakt och allemansrätt: Om friluftslivets naturmöte och friluftslandskapets tillgänglighet i Sverige 1880–2000 [Contact with nature and public right of access: On the outdoor encounter with nature and the availability of the outdoor landscape in Sweden]. *Svensk Geografisk Årsbok*, 73, 31–65.
- Sandell, K. (2006). Access under stress: The right of public access tradition in Sweden. In N. McIntyre, D. R. Williams, & K. E. McHugh (Eds.), *Multiple dwelling and tourism: Negotiating place, home and identity* (pp. 278–294). Wallingford: CABI Publishing.
- Sandell, K. (2007). Access, tourism and democracy: A conceptual framework and non-establishment of a proposed national park in Sweden. In D. Müller & B. Jansson (Eds.), *Tourism in peripheries: Perspectives from the far north and south* (pp. 141–153). Wallingford: CABI.
- Sandell, K., & Öhman, J. (2010). Educational potentials of encounters with nature—Reflections from a Swedish outdoor perspective. *Environmental Education Research*, 16(1), 95–114.
- Sandell, K., Öhman, J., & Östman, L. (2005). *Education for sustainable development: Nature, school and democracy*. Lund: Studentlitteratur.
- Sandell, K., & Sörlin, S. (Eds.). (2008). *Friluftshistoria—från 'hårdande friluftsliv' till ekoturism och miljöpedagogik: Teman i det svenska friluftslivets historia* [The history of outdoor recreation—From 'the tough outdoor life' to eco tourism and environmental pedagogy: Themes in Swedish outdoor recreation history] (2nd rev. ed.). Stockholm: Carlssons.
- Schindler, F. H. (1999). Development of the survey of environmental issue attitudes. *Journal of Environmental Education*, 30(3), 12–17.
- Setten, G. (2006). Fusion or exclusion? Reflections on conceptual practices of landscape and place in human geography. *Norwegian Journal of Geography*, 60(1), 32–45.
- Smith-Sebasto, N. J., & Cavern, L. (2006). Effects of pre- and posttrip activities associated with a residential environmental education experience on students' attitudes toward the environment. *Journal of Environmental Education*, 37(4), 3–17.
- Sörlin, S. (1991). *Naturkontraktet: Om naturumgängets idéhistoria* [The nature contract: On the history of the relationship with nature]. Stockholm: Carlssons bokförlag.

- Stables, A. (2001). Language and meaning in environmental education: An overview. *Environmental Education Research*, 7(2), 121–128.
- Tuan, Y.-F. (1990). *Topophilia: A study of environmental perception, attitudes, and values*. New York: Columbia University Press. (Original work published 1974)
- Uljens, M. (Ed.). (1997). *Didaktik—teori, reflektion och praktik* [Didactics—Theory, reflection and practice]. Lund: Studentlitteratur.
- UNESCO (United Nations Educational, Scientific and Cultural Organisation). (2005). *United Nations decade of education for sustainable development 2005–2014: International implementation scheme*. Retrieved March 25, 2010, from <http://www.unesco.org/en/esd/publications>
- Van DeVeer, D., & Pierce, C. (Eds.). (1998). *The environmental ethics and policy book—philosophy, ecology, economics* (2nd ed.). Belmont, CA: Wadsworth.
- Whatmore, S. (2002). *Hybrid geographies: Natures, cultures, spaces*. London: Sage.
- Williams, D. R. (2002). Leisure identities, globalization, and the politics of place. *Journal of Leisure Research*, 34(4), 351–367.
- Wilson, R. (1996). Environmental education programs for preschool children. *Journal of Environmental Education*, 27(4), 28–34.
- Wiseman, M., & Bogner, F. X. (2003). A higher-order model of ecological values and its relationship to personality. *Personality and Individual Differences*, 34(5), 783–794.
- Worster, D. (1993). *The wealth of nature: Environmental history and the ecological imagination*. New York: Oxford University Press.
- Zachrisson, A., Sandell, K., Fredman, P., & Eckerberg, K. (2006). Tourism and protected areas: Motives, actors and processes. *International Journal of Biodiversity Science and Management*, 2(4), 350–358.