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## Culture and nature versus culture or nature

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### Abstract

This paper discusses the integration of cultural and natural heritage aspects of landscapes. It presents arguments for the further integration of interests but also points to the potential for conflicts between cultural and natural heritage interests. These are predominantly at the site-management level. The important role of the historical layer is stressed as an integral part of the environmental capital of landscapes, a part where the services provided need to be communicated more explicitly, especially those aspects of cultural heritage that are invisible or symbolic. The attention paid to cultural heritage interests in framing agri-environmental payments is increasing and in many cases can be combined effectively with measures to promote other environmental benefits such as biodiversity. The challenges of the future are to achieve even greater integration of the nature and culture components of landscapes and to work out how best to incorporate the lessons of the past in designing future landscapes.

### Introduction

The scope of this paper is a debate on the potentials and limitations in combining cultural and ecological interests in future landscapes. Before I embark on this discussion, I wish to make it clear that these are just two of the many interests competing for territory in future European landscapes. However, they are two aspects of landscapes that are, in one way or another, closely related to other interests whether settlement patterns, production systems (mainly forestry and agriculture), recreation, aesthetics etc. The *nature* and *culture* aspects of landscape are of particular interest because they are interwoven in just about all European landscapes as well as being two current environmental concerns. Europe possesses an enormously rich variety of cultural landscapes, often in small-scale mosaics, reflecting ownership or other patterns of social space. It is difficult to find areas in Europe without cultural influence. If we examine remote areas such as the wide mountain plateaux of Scandinavia, even here we can find the rich remains of prehistoric and historic societies with material finds including elaborate systems of transhumance and animal trapping. Perhaps some of the wild Atlantic coast of Northern Europe is about as untouched by cultural development as can be found, but the marine resources off these coasts (e.g. kelp and fish) have been harvested and altered ecologically for hundreds of years.

For most of Europe, the landscape is clearly shaped by its history of farming and forestry. Traditional farming has given rise to many distinctive field systems and

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settlement patterns often prized as attractive landscapes and valuable for tourism. Cultural landscapes also contribute to a sense of place and local identity for the people who live there. These aspects seem to be rising in policy importance across Europe (Gaukstad 2000). There is a rich literature on the many cultural landscapes of Europe and their values, but I will not discuss this here. What is important is that there is widespread support for the maintenance of historical landscapes as part of our cultural and natural heritage. There is also movement towards greater dialogue and coordinated policy by the policy sectors responsible for these two important landscape values.

Nature management and cultural heritage management have both moved from emphasizing sites to emphasizing landscapes as the focus for management (Fairclough and Rippon 2002). The message from landscape-ecological research is that we need policies to take into account landscape-level processes. Communicating this concept has been a success story evidenced by landscape approaches to spatial planning and incorporation of landscape aspects into biodiversity action plans. Likewise, we see a growing movement within cultural heritage management to include the context of important monuments and sites (Ashmore and Knapp 1999). There are also many interdisciplinary planning projects in Europe where nature and culture are central themes. The aim of this paper is to examine how far we can combine these interests in new policies for future landscapes.

### **Landscape concepts and theories**

Subject disciplines tend to develop quite different jargon and technical terms for similar processes. This is true of landscape ecology and landscape archaeology but with one difference, an important difference. The remit of landscape ecology has always included the historical development of landscapes and hence the cultural aspect has been an integral part of landscape ecology during its evolution as a discipline. In many ways, landscape ecology can be considered an overarching discipline. This has caused some problems in defining the core of the subject and for internal communication between landscape researchers from widely different subject traditions. It has also been one of the great strengths of landscape ecology.

The subject has grown to be interdisciplinary and taken on working methods and concepts from a wide range of academic subjects spanning both qualitative and quantitative approaches. This has opened the door for joint theoretical development across subject boundaries. One such fruitful area is in the link between landscape archaeology and landscape ecology. Many commonalities exist between these two fields of study even though the terminology may be different. Using this shared appreciation of landscape processes as a basis for understanding the relationships between the cultural and ecological aspects of landscape will lead to new insights and stimulate the development of new theories.

### **Theoretical common ground**

Natural and cultural heritage studies share many common aspects but they have also developed their own identities. Research into the natural environment is dominated by approaches typical of the natural sciences with its quantitative methodology, whereas cultural heritage research has held closely to its humanistic research traditions. Nevertheless, recent research has seen exciting increases in the interchanges between subjects. We have seen crossover studies examining the importance of landscape-ecological processes to people, e.g. vegetation restoration

measures and hedgerow networks studied from a humanistic perspective. Similarly, many of the principles of landscape archaeology, especially those used to describe spatial aspects of human behaviour, have developed parallel conceptual approaches to those used in landscape ecology, e.g. habitat complementation and supplementation (Taylor et al. 1993). At the same time, the phenomenological perspectives contributed by archaeology offer insights into the interactions between cultures and landscape that go beyond environmentally deterministic landscape theory. Within landscape ecology there is increasing interest in the way animals perceive landscape and how their behaviour responds to different landscape structures (Hehl-Lange 2001). Research on animals ranging from mammals to insects have found that perceptual rather than physical barriers can affect animal movement or other aspects of space use

The way landscapes are perceived and interpreted by different cultures has structured landscape and land use patterns (Aldenderfer and Maschner 1996; Ashmore and Knapp 1999). Cultural perception and interpretation of the environment has thus led to spatial patterning of landscapes, and these patterns can be identified and mapped as historical landscapes. At a landscape level, natural features such as topography are important since they have been integrated into local perceptions and belief systems. At the site level, the archaeological focus has been more on the properties of material culture and social systems in describing space use (Tilley 1994).

- Connectivity is a fundamental process in landscape ecology and increasingly important in cultural studies. In both subjects, connectivity in landscapes is important for the way animals or people move around in landscapes and will have significance to whether or not resources or other sub-populations are available.
- Corridors increase the flow of individuals between resource patches or suitable habitat and are important in determining the infrastructure of both animals and people.
- Nodes are important meeting places which have significance for the alternative ways individuals can move around the landscape.
- Habitat supplementation and complementation are ways in which individuals and populations sustain themselves with necessary resources in fragmented landscapes.
- Heterogeneity in landscapes ensures a wide range of resources in small-scale landscapes.
- Continuity is both an aspect of the time depth of cultural heritage interests of landscapes and important for the species that live there.
- Size and shape of habitat patches are important patch variables affecting population viability and inter-patch movement.
- Scale issues are important to landscape ecology and landscape archaeology for both spatial and temporal processes.

These and other landscape-ecological concepts are important for human settlement and survival as well as species distribution and survival, and are likely to be the basis for continued theory development across subject boundaries.

#### Box 1. Some themes that seem to have wide application in landscape studies

Cultural features of different ages can visually dominate and often replace cultural or natural features that were important to earlier societies (Renfrew 1982). Pre-historic monuments may have had a more striking impact on the landscape of the past than they do today where they compete with remains from historic and recent times. Questions need to be asked about what is the authentic landscape, and which time period should gain precedence and why?

Research projects increasingly work across subject boundaries to make links between the nature and culture components of landscapes (Skar 2001). The concept of perceptual units, which are much used in environmental psychology and landscape architecture, are increasingly used in heritage management to define cultural environments (Gansum, Jerpåsen and Keller 1997). Assessment of the historical character of an area can take place at different scales, each of relevance to different planning uses. At the landscape level, assessments focus on the roles of perceptual units and the visual relationships between sites and topographic features within a landscape. The phenomenology of landscapes with the symbolic meaning of places and spaces and relationships between them occur at this level (Llobera 1996). People have attached meaning to natural or man-made landscape features and elements. Understanding the role of perceptual units assists in interpreting the cultural significance of landscape elements. They also fulfil another important function, that of defining the boundaries of cultural environments for cultural heritage management.

### **Site management: where nature and culture collide**

At theoretical and policy levels nature and culture are working well together. The major problem areas seem to be associated with practical site management. Often the management needs of cultural heritage are not the same as those of natural heritage. It would remove a lot of conflict if their needs were the same, but they are not. Let me provide some examples from Norway that have parallels in many other countries.

#### *Vegetation and grave mounds*

Norway has a rich heritage of grave mounds from the Bronze and Iron Ages. These can be quite large and are often found in clusters in grave fields. They are visually prominent features often having line-of-sight relationships with other distant grave mounds, especially the large and important ones. Over the centuries, these visual inter-sight relationships can be lost through changes in land cover, e.g. forest vegetation. As forest matures it develops important nature qualities. In most cases, where the forest is old the forest remains and the goals of landscape archaeology cannot be achieved. One of the most important grave fields in Norway, Borre, overlooks the entrance to Oslofjord. Or rather it would do if it was not for a narrow belt of trees between the graves and the sea. The woodland is ecologically special and cannot be removed, frustrating efforts to re-instate the visual environment of the graves. Zoning of forest sites where narrow vistas open important visual relationships may be a compromise.

A more direct threat to the graves is the planting of trees (especially birch) on the top of large grave mounds. Both the roots of the trees disturbing deep soil layers and the risk of uprooting during storms are very serious threats. On the other hand, the trees can be important habitat patches or visual components of the landscape.

#### *Walls*

Similar problems occur during the restoration of ancient walls and cairns to reveal old field systems. These aims conflict with the use of walls as a substrate for rare species of moss and lichen. Some walls are so overgrown that restoration management requires the removal of shrubs and trees to prevent further deterioration of the wall. The vegetation can be important for its nature-conservation value as habitat or as a movement corridor.

*Access, visitors, interpretation, education*

An important aim of landscape archaeology is to increase public awareness of cultural heritage by the provision of interpretation and the use of sites for education and by the public. Creative management may be needed to avoid serious conflict with nature interests.

In these and other potentially conflicting areas of site management, the challenge is to identify how nature and culture interests are related and how they complement each other and reflect interacting temporal and spatial processes. However, it must also be appreciated that it will not be possible in every case to optimize management for both nature and cultural interests at the same place. Sometimes, and more often than management seems to think, real conflicts exist that call for clear priorities based on clear criteria and where management decisions have to be taken.

**Landscape management: defining functional units**

The scientific and political acceptance of the importance of landscape-scale management has called for new planning tools, ones related to the wider countryside rather than being restricted to just the special places. The trend also calls for new methods for identifying the bounds of cultural landscapes. What is an archaeological/historic landscape and does this follow the same boundary as an ecologically defined landscape? Both ecological and cultural boundaries will be related to landscape functions. Sometimes these will coincide and ecological and cultural landscapes share common bounds such as ridge lines or soil types. In other cases, the functions will be less easy to relate to each other. Historic landscape may gain importance from their symbolic value, for example as the site of a famous battle, work of art, or the home of a famous person. In such cases, the contribution of nature in defining the boundaries of cultural landscapes may be very weak.

Defining the bounds of archaeological environments or landscapes is very difficult. The older the site and the less complete the material evidence, the less likely we are to be able to interpret or delimit the cultural environment. This is not to say that delimiting landscapes based on their ecological functions is any easier. Ecologists have long accepted that the process they are studying defines their landscape such that several functional landscapes may exist nested within a larger landscape unit. In a similar way, there may be nested sets of historical landscapes within a cultural landscape.

Fairclough and Rippon (2002) provide a review of European practice in cultural heritage management at the landscape level. The importance of this publication is the way it links recent theoretical and practical approaches to defining historical landscapes to the European Landscape Convention and to wider quality of life issues including sense of place and local identity. The authors argue that the archaeological perspective brings to landscape study and management the awareness of long-term change and a knowledge of historical processes that puts human agency (collective rather than as individuals) at the forefront of explanation. In this way, archaeology explains the human and historic reasons for the current appearance of the landscape; an appearance that has undergone long-term changes and will continue to change in the future (Fairclough and Rippon 2002). Landscape ecology also includes the role of people in shaping landscapes within its scope and increasingly focuses on the effects of human influence and decision-making in the shaping of landscapes. The close links between the ecological and historical perspectives are apparent if one examines the lists of papers to be presented at landscape ecology and archaeology conferences.

## Nature-culture: the common ground

There is much to gain through the further integration of culture and nature in landscape studies. This integration reflects the wishes of policymakers and the public and is built on many fine research and management projects across Europe. The challenges facing us now relate to how we cope with the dynamic aspects of landscape in spatial planning. How do we incorporate the cultural aspects of landscape, which are so connected with the past and landscape evolution, with the need for change and new forms of sustainable land use? We are not going back to the farming traditions of the 18<sup>th</sup> and 19<sup>th</sup> centuries, except perhaps in some museum landscapes. How do we then find the keys to a sustainable future in Europe's cultural landscapes, what can the landscapes of the past offer us? How do we decide which are positive new values in the countryside?

We must remember that values change and that countryside priorities and use of landscapes will change. In Norway, farmers produced 70% more food in the year 2000 compared with 1960 but used only 23% of the labour. During the last 5 years 20% of dairy farms disappeared and more than 2500 farms are deregistered per year, even though the total area of agricultural land remains almost constant. New uses will supplant traditional ones, not only in terms of farming but also the ecology, recreation and amenity functions. Discovering what is important to people in landscapes today, what is likely to be in the future and why, are key elements in managing the services landscape provide to the quality of life. It will also be a challenge to incorporate the aims of sustainability from nature and culture perspectives at a time when market forces will increasingly dominate the development of agricultural landscapes both in the current and new EU countries. Restructuring of landscapes will progress rapidly presenting a significant threat to both ecological and cultural heritage interests. What do we do in cases where the farming systems that created important cultural landscapes cease? How much land can we keep in unsustainable uses to protect landscape values?

Landscape ecologists advise on the consequences of landscape change scenarios and contribute to the development of spatial solutions for sustainable landscapes. Archaeology adds an understanding of the way landscapes came to be as they are. This historical perspective contributes a time depth to the landscape patterns experienced by those who work and live there by explaining what happened in the past and, most importantly, developing a feeling for the dynamics of landscape evolution. Such understanding is essential to promote greater public participation in the planning of future landscapes.

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