

BAS PEDROLI • DIRK WASCHER • GEERT DE BLUST • MARIA LUISA PARACCHINI • ANNE VAN DOORN

INTRODUCTION

EUROPE'S LIVING LANDSCAPES AT A TURNING POINT

Landscape is one of the most fascinating assets of Europe. Its great diversity reflects a multitude of historical layers in an intricate spatial pattern. It means that, even in our globalised era, one evolves according to where one has grown up: a Greek fishing village gives us a different identity from growing up in the English countryside. Our sense of belonging is very much determined by the environment to which we are accustomed, and our perception of the landscape is thus an essential component of a community's well-being, and of visitors' enjoyment.

However, this diverse landscape is in a deep crisis. Today a walk through Europe's countryside can be a disturbing experience. What were once beautiful, living landscapes have been seriously debased over the past 50 years: from the coastal zone between Faro and the Spanish border in Portugal, over the water starved Great Plain of Hungary, through alpine meadows and along river sides, the story is the same. The old activities, still reflected in the landscape, are no longer efficient and new functions tend to be dominated by agricultural intensification, fragmentation by roads and urbanisation, and abandonment; all stimulated by national and European policies. These result in homogenisation, banality, and finally in ghost landscapes. This is all the more alarming because a weak sense of belonging leads to a lack of attachment, to social problems and to vandalism.

This book treats the current crisis in landscape quality as a challenge for action and research; in agreement with the European Landscape Convention, which stresses the importance of safeguarding all landscapes, not just the beautiful ones. To counteract global trends initiatives are being taken in many places, in conjunction with local efforts, to allow new living landscapes to emerge on the basis of the existing values.

A CONCERN FOR LANDSCAPE

Landscape consciousness from Petrarca to Mansholt

When, in April 1336, Francesco Petrarca climbed Mont Ventoux near Avignon in France, he felt like a king as he gazed over the land from on high as is beautifully described by Simon Schama (1995). As Petrarca himself recorded, he just wanted to see what such a high prospect could offer him: a notion alien to most in late Medieval times. Landscape as a concept did not yet exist in the minds of people; it was simply a commonplace part of the everyday world, in which they were constrained to work for their survival. Petrarca was one of the first authors in western civilisation to consciously take a distant perspective on objects that concerned him, and, emancipated from the everyday world, he enjoyed the view of the landscape from the top of Mont Ventoux. This event marks the start of a development of consciousness in which the human mind takes an increasingly independent position from the merely physical earth. This was reflected in the gradually evolving fashion for depicting landscapes in paintings; first as a background in allegorical pictures, later as a subject in its own right (Casey 2002).

The prospect of freeing oneself from relentless mundanity opened abounding possibilities for developing new techniques and manipulating the physical world for the benefit of individual prosperity and societal progress. As a consequence, opportunities other than working the land emerged. Modern civilisation is the result of this. A global market made the functional relationships that had built our cultural landscapes for centuries change radically. The European Economic Community's Agricultural Policy in the 1960's – whose great advocate was the EEC's vice-chairman Sicco Mansholt – aimed at freeing thousands of poor peasants from the rural areas. They would earn much better wages in industry, and agriculture could develop in a more intensive and productive way. Only much later did Mansholt realise that his very successful policy also led to a loss of identity in many rural areas of Europe (Van Merriënboer 2006).

that the spatial configuration of the fragmented habitats in our cultural landscapes needs a minimum of connectivity for many species to be able to survive as persistent populations ('metapopulations', Vos & Opdam 1993, Opdam *et al.* 2001, Jongman & Pungetti 2004). However, since spatial planning is a competence of the member states, the European Union can hardly develop adequate policies for the spatial planning aspects of ecological networks (Opdam 2005), apart from designating NATURA2000 sites. The same applies for landscape (Wascher 2005, Pedroli *et al.* 2006).

These considerations give rise to the paradoxical situation that EU policies – especially the Common Agricultural Policy and policies on economical development, infrastructure and urban development – have important consequences for landscape, but landscape as such is not the responsibility of the EU. There are serious worries about developments in the rural areas of the next round of newly accessed EU member states. In Poland the average farm size was still less than 8 ha in 1996 (CEC 1998), which is completely unprofitable within a European context. This means that the landscape in Poland and in other newly accessed countries like Lithuania, Romania and Bulgaria, most of which are associated with high biodiversity and landscape values (see the HNV farming map in Chapter 2), will inevitably change fundamentally in the coming 20 years (Klijn *et al.* 2005). The EU lacks a vision that specifically focuses on the effects of this change on landscape as an integrated concept.

1 : The times they are changing ...

Sustained and detailed landscape studies that combine a thorough knowledge of the bio-physical world, cultural and technical development and societal organisation, enable us to understand contemporary landscapes in their historical perspective. They yield the keys necessary to read the landscape and to construct the links between what we see, the landscape pattern and composition and the processes that produced this particular landscape. This role is fulfilled by some beautiful books on the landscapes of Britain, Crete, the Mediterranean, and Sweden (Grove & Rackham 2001, Rackham 1994, Rackham & Moody 1996, Sporrang *et al.* 1995) and several others. However, there are also other ways to explore the past and present of landscapes.

Landscape as a reflection of the past, as a prelude for the future

Re-photographing landscapes is one of the most enlightening ways to learn about landscape changes. Detailed photographs reveal traces from the past, show the actual land cover, land use and landscape composition in all its dominant forms, and at the same time, in some, signs that prelude future developments may be recognised. Analysing a series of pictures therefore makes one consider the driving forces behind landscape transition, about the impacts of land use change on the services those landscapes can deliver and about robust and permanent landscape structures, in contrast with sensitive and temporary structures.



Figure 2. Changes of an ordinary landscape in Flanders (Belgium), Zillebeke, Ieper (Uyttenhove P. *et al.*, 2006).

1911, 15 May (Massart). The three-course rotation still functions. At the left, three parcels: the first is recently ploughed and sown, the second is fallow land, the third, at a distance, has winter-corn. The oak alley with broad grass verges is typical for the region. 1980, 24 July (Charlier). The oaks are cut and the verges of the lane are ploughed in. A new farm with orchard turned up. Large fields with potatoes and wheat replace the former crop variety. 2003, 23 November (Kempnaers). New trees are planted, referring to the old landscape structure. The large fields are still present; arable land changed into pastures. However, the whole landscape atmosphere changed dramatically. The wide view is gone; a gate closes the alley and hampers the perception of an open landscape. Individualism sets its seal upon the land.

Landscape Governance, a new approach

With the recent enlargement of the European Union to 27 Member States, and negotiations continuing with further accession countries, the challenge of achieving effective cooperation between countries and regions has grown. Landscape is one of the few policy areas that form a unifying element between social, economic and environmental interests, through holistic and integrative concepts. However, research and policy experts at the European level still consider it to be covered essentially by a geo-science oriented approach, i.e., without much concern for society or the economy. Landscapes thus present a number of conceptual challenges for a

wider disciplinary audience in terms of commonly accepted definitions and policy objectives. The mono-disciplinary approach has fortunately started to change. Most notably, the European Landscape Convention is the first international treaty to be *exclusively* concerned with the protection, management and enhancement of *all* European landscapes (Council of Europe 2000). The Convention applies to the countries' entire territory and covers natural, rural, urban and peri-urban areas, dealing with ordinary or degraded landscapes as much as with those which may be considered outstanding.

Defining implementation targets for the European Landscape Convention requires the commitment of both national and international institutions. One of the most pressing challenges in this respect is the question of whether these institutions will be able to move from a competitive, sector-oriented style of governance towards an integrated, landscape-oriented form. Against the background of the dilemma between public interest and local involvement, Görg (2007) therefore introduced the principle of 'landscape governance'. This style of governance combines the needs of the local civil society, grounded in their own specific landscapes, with the requirements of public interest at large. In this approach cities and urban regions are no longer simply considered sub-units of the national state but rather play the role of 'local state'. Cultural patterns of perception define societal relationships with nature; and landscape, as a realm of human-environmental interaction, is used as a bridging concept between social scales and biophysical processes. As such, landscape governance represents an approach for handling complex, locally-anchored problems. In practice it can already be seen to work in many cases, as is shown in this book.

THE STUDY OF LANDSCAPE: TAKING SUSTAINABILITY SERIOUS

Landscape, a vehicle for meanings, traditions and values

The concept of sustainability applied to landscapes is probably clearer at the local level than from a wider and more theoretical point of view. No one knows the landscape better than its local communities and, even if they lack the scientific knowledge for understanding physical and social phenomena, they definitely know how they would like their surroundings to be. However, this does not mean that a landscape which is considered sustainable at the local level is also sustainable at a national or global level, nor that it is perceived in a perspective that remains stable in relation to different types of change. The concept of sustainability acquires different meanings and thus, depending on the actors involved, different aspects of sustainability (environmental, social, economic, and cultural) may prevail.

From a research point of view, several steps have been taken to bridge gaps in the relationships between local stakeholders, the larger community and the policy makers and to enhance the knowledge of sustainability itself. For example, several methods for evaluating scenarios and selecting the best alternative currently exist, some of which are built expressly to involve stakeholders at different levels and to look at developments at different scales of analysis (e.g. Social Multi Criteria Evaluation, Munda 2006). What is still lacking is a development of the semiotic approach, helping to explain the interpretation of changes and to understand landscape as a vehicle for meanings, traditions and values (Nash 1997). The perception of these meanings evolves through time and we should be aware of this when we choose what should be maintained and what should be discarded. Particularly in the European context, sustainability can, or should be associated with its wider meaning. Given the pressure put on the environment by the 487 million inhabitants of the European Union, sustainability now involves a need for the maintenance of basic resources: the quality of air, soil and water, and of landscape.

Challenges for trans-disciplinary landscape study

To fulfil the requirements of sustainable landscapes, *interdisciplinary* and *trans-disciplinary* research is urgently needed to help solve the problems that occur in our landscapes (Wu & Hobbs 2007). On one side societal demands regarding alternative land use increase constantly, resulting in strong competition for influence and space; on the other side, land is being abandoned and regions de-populated. What rapidly follows is the deterioration of centuries old landscapes which are, however, highly valued for their beauty by modern society.

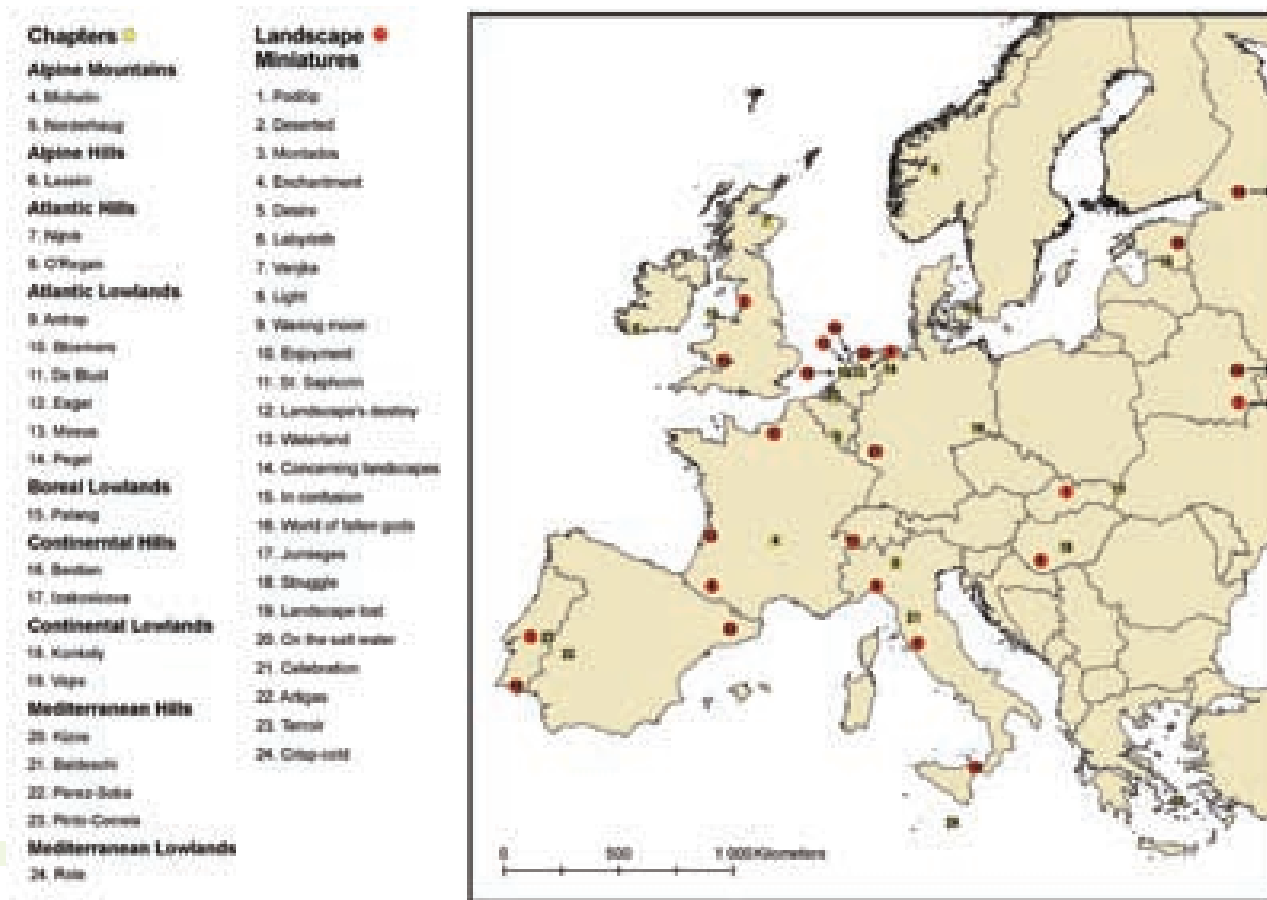


Figure 1. Location of the landscapes addressed in this book. Squares indicate the landscapes described in the chapters, dots represent the location of the landscape miniatures.

Multi-functionality and integration of functions should be further developed as strategies to overcome these problems (Brandt & Vejre 2003), and thus policy-makers and end-users have great expectations of interdisciplinary and trans-disciplinary research.

In the complex research environment of landscape, 'interdisciplinarity' implies "projects that involve several unrelated academic disciplines in a way that forces them to cross subject boundaries to solve a common research goal". Trans-disciplinarity relates to "projects that integrate both academic research from different unrelated disciplines and user-group participation to reach a common goal" (Tress et al. 2003). However, well-documented experiences with inter- or trans-disciplinary research are still limited (Wächter 2003).

The emerging development of integrated science will be a significant asset for the study of landscapes and in the search for solutions for the complex problems related to the deterioration of values and functions, multifunctional land use, abandonment of regions, local to global transformations, and rapidly changing and highly diverse societal needs and demands. However, there is still a long and difficult way to go. The landscape studies described in this book reveal some of the potentials of this integrated approach, and research and policy can learn from their examples.

OUTLINE OF THE BOOK

Objectives

For this book we asked members of LANDSCAPE EUROPE the *International Network of Expertise on Landscapes* and other recognised landscape specialists to address a specific landscape that they feel committed to.

Against the background of the above considerations, and to overcome feelings of loss and grief over the fate of cultural landscapes in Europe (Pedroli *et al.* 2006), our objectives were:

- to produce an inspiring book for a general, (semi-)academic public interested in the fate of the European cultural landscape
- to illustrate some of the typical landscapes at the Pan-European level in the various European regions surveyed by LANDSCAPE EUROPE members and their local networks
- to give examples of how concrete actions can contribute to the living European landscapes of the future
- to stimulate active international exchange and cooperation in landscape management.

2 : Jean Massart, landscape ecologist avant-la-lettre

Jean Massart is a name to remember. At the beginning of the 20th century, this Belgian botanist started a huge project to describe and analyse the geobotany of Belgium on the basis of thorough field research and (what is important in this context) very detailed landscape and vegetation photographs. It may safely be said that Jean Massart was the founder of nature conservation in Belgium, and what made his work so valuable for landscape science, and also for conservation, was his scholarly endeavour to combine the results of analytical and precise 'ecological research' (the term was not yet in use at that time) with a comprehensive study of man's impact on and use of the land and vegetation. In a word, Jean Massart was a real landscape ecologist 'avant la lettre'. Unfortunately, World War I abruptly ended his project. Only two of the envisaged ten albums with plates were published. About 160 plates with large landscape photographs (approximately 30 by 40 cm) of a considerable part of northern Belgium remain. The first album, published in 1908 (Massart & Bommer), deals with the geo-botanical districts of the coast and the alluvial plains. The second, published in 1912 (Massart & Bommer), includes the Flemish and Campine districts.

Besides the outstanding technical and aesthetic qualities of the photographs, the documents of Massart owe their value to the details of locality, coordinates, orientation and visual angle of each picture, which makes it possible to revisit the sites and to repeat the exercise (see text box 3).

Massart J & Bommer C (1908). Les aspects de la végétation en Belgique. Les districts littoraux et alluviaux. Lamartin, Bruxelles. [The appearance of the vegetation in Belgium. The coastal and fluvial districts.]

Massart J & Bommer C (1912). Les aspects de la végétation en Belgique. Les districts Flandrien et Campinien. Jardin Botanique de l'Etat, Bruxelles. [The appearance of the vegetation in Belgium. The Flanders and Campine districts.]

Four red threads through this book

The authors were asked to refrain from technical discussions and to focus on the landscape as they perceive it, on the practical problems they experience in it, and on the solutions they have found for these problems in concert with the inhabitants. We provided a strict framework for the contributions and we are grateful to the authors for their readiness to fit their diverse contributions into this imposed pattern.

Figure 1 gives the location of the landscapes addressed.

From the 21 case studies described here a large variety of landscape types and identified issues emerge. The fragmented nature of this representation of European landscapes is compensated for by introducing four red threads running through the book.

- **LANMAP2.** In each chapter, reference is made to a landscape character map of the whole of Europe, as described in Chapter 3. This exercise underlines the fact that the landscape regions defined here also guide the order of the book's chapters: we start arbitrarily with the Alpine landscapes, followed by the Atlantic hills and lowlands, then we travel to the Boreal zone and, via the Continental landscapes, we end in the Mediterranean hills and lowlands.
- **High Nature Value farmland.** Because high nature value agricultural land plays a major role in the diversity of the European landscapes, each individual chapter also includes a reference to a new map of the High Nature Value farmland of the European Union.* This European map is described in Chapter 2.
- **Time series.** In each chapter a time series of landscape appearance is included, either in photographs or in maps. This revealing exercise gives clear local evidence of changes in European landscapes. Text boxes 1, 2 and 3 reflect on the use of such time series.
- **Landscape miniatures.** The panels between each chapter are a last red thread, highlighting how direct, enquiring perception of the landscape reveals characteristic elements, and sometimes embarrassing clues**. 24 further European landscapes are thus portrayed as an instant record, reflecting the course of the seasons.

* In the chapters 5 and 24 on Norway and Malta this could not be realised, the former because Norway is not part of the European Union and thus was not covered by the HNV map, and the latter because the HNV farmland on Malta could not be captured by the presented methodology and can be mapped only through national datasets.

** These landscape miniatures were earlier published in the Dutch monthly MOTIEF, and were

translated by the author, with thanks to Natalie

Pedroli B, Van Doorn A, De Blust G, Paracchini ML, Wascher D & Bunce F (Eds. 2007). Europe's living landscapes. Essays on exploring our identity in the countryside. Landscape Europe publication.

Synopsis

Given the processes described above, it can be concluded that research dedicated to landscape analysis and planning is one of the key challenges for designing and implementing sustainability in the countryside. This research will require more insights into the major international driving forces, as well as into regionally specific trends and changes with regard to local landscape character.

Although each of the 21 examples compiled in this book represents a scientific stock-taking of functions, values, and historical background, all of these landscapes share exposure to the same types of European driving forces and socio-economic mechanisms. The authors explore the identity of these landscapes and ways that this identity can be regained and reinforced. These case studies are meant as a source of inspiration in the pursuit of sustainable living landscapes in Europe.

3 : Revisiting landscapes reveals striking transformation

In 1980, the National Botanical Garden of Belgium commissioned the photographer George Charlier to re-photograph a selection of Massart's landscapes, in collaboration with Leo Vanhecke, a skilled botanist (see text box 2). Together, they succeeded in matching Massart's vision and description of the landscape, which resulted in the fascinating book 'Landscapes in Flanders, past and present. From green poverty to grey profusion' (Vanhecke *et al.* 1981). Photographs from both periods were paired and accompanied by the original descriptions of Massart and the analyses of Vanhecke, giving details of the new landscape and its vegetation. Finally, in 2003 and 2004, Jan Kempenaers was given the task of visiting the sites again. This third time the Flemish Architectural Institute was the commissioner; illustrating the emerging interest in landscape science and the growing consciousness, even outside the natural sciences, of the immense impact of modern society on landscapes and their heritage. The objective, however, remained the same: to re-photograph the landscapes so that basic material for the thorough study of landscape transformation in Flanders was available. Once again, a book with pictures and extensive analyses, essays and comments was published (Uyttenhove 2006) and an exhibition was organised in the Municipal Museum of Contemporary Art in Ghent.

Landscape representations of the past, inspiration for the future?

Re-photographing landscapes seems to be popular in Flanders. However welcome that is, it may equally be symptomatic of the degenerate state of many of them. Interest in quality, identity, and a sense of place grows quickly once a certain threshold is passed. In highly urbanised and densely populated Flanders such is the case: general uniformity is gradually engulfing regional diversity. Undoubtedly, old landscape photographs are inspiring documents that will help to achieve the challenging task of raising similar awareness throughout Europe.

Vanhecke L, Charlier G & Verelst L (1981). Landschappen in Vlaanderen vroeger en nu: van groene armoede tot grijze overvloed. Nationale Plantentuin van België. Meise. [Past and present landscapes in Flanders: from green poverty to grey abundance.]

Uyttenhove P (ed. 2006). Recollecting Landscapes. Herfotografie, geheugen en transformatie. 1904-1980-2004. A&S/books, Gent.

LITERATURE

- Antrop M (2006). Sustainable landscapes: contradiction, fiction or utopia? *Landscape and Urban Planning* 75 (3-4): 187-197.
- Bouwma IM, Jongman RHG & Butovsky RO (2002). Indicative map of the Pan-European Ecological Network for Central and Eastern Europe. Technical background document. ECNC, Tilburg, 165 p.
- Brandt J & Vejre H (eds. 2003). *Multifunctional Landscapes. Volume I – Theory, Values and History*. Wit Press, Southampton, 250 p.
- Buijs AE, Pedrolì B & Luginbühl Y (2006): From hiking through farmland to farming in a leisure landscape. Changing social perceptions of the European landscape. *Landscape Ecology* 21 (3): 375–389.
- Casey ES (2002). *Representing Place. Landscape Painting & Maps*. Minneapolis/ London: University of Minnesota Press, 366 p.
- CEC (1998). *Agricultural Situation and Prospects in the Central and Eastern European Countries*. Poland. European Commission, Directorate General for Agriculture (DG VI), Working Document. Brussels. 151 p.
- CEC (2001). *A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development* (Commission's proposal to the Gothenburg European Council), Commission of the European Communities COM(2001)264 final, Brussels.

- CEC (2006). Review of the EU Sustainable Development Strategy (EU SDS) – Renewed Strategy. Council of the European Union. Commission of the European Communities Doc. 10117/06, Brussels.
- Council of Europe (2000). European Landscape Convention. Council of Europe publishing, Strasbourg.
- Delbaere B (1998). Facts & Figures on Europe's Biodiversity - state and trends 1998-1999. European Centre for Nature Conservation, Tilburg (Technical Report Series), 115 p.
- EEA (2006). Agriculture and environment in EU-15 — the IRENA indicator report. Joint report by DG Agriculture and Rural Development, DG Environment, Eurostat, DG Joint Research Centre, and the European Environment Agency, Copenhagen, 132 p.
- Görg C (2007). Landscape Governance. The “politics of scale” and the “natural” conditions of places. *Geoforum* (in press).
- Jongman R & Pungetti G (Eds. 2004). *Ecological Networks and Greenways. Concept, Design, Implementation*. Cambridge University Press, Cambridge, 368 p.
- Klijn JA, Vullings LAE, Van den Berg M, Van Meijl H, Van Lammeren R, Van Rheenen T, Tabeau AA, Veldkamp A, Verburg PH, Westhoek H & Eickhout B (2005). The EURURALIS study: Technical document. Wageningen, Alterra, Alterra-report 1196, 215 p.
- Mücher CA, Wascher DM, Klijn JA, Koomen AJM & Jongman RHG (2006). A new European Landscape Map as an integrative framework for landscape character assessment. In: Bunce RGH & Jongman RHG (Eds.) *Landscape Ecology in the Mediterranean: inside and outside approaches*. Proceedings of the European IALE Conference 29 March – 2 April 2005 Faro, Portugal. IALE Publication Series 3, pp. 233-243.
- Munda G (2006). Social multi-criteria evaluation for urban sustainability policies. *Land Use Policy* 23 (1), 86-94.
- Nash G (ed. 1997). *Semiotics of Landscape: Archaeology of Mind*. British Archaeological Reports. Archaeopress, Oxford, 118 p.
- Opdam P, Foppen R & Vos C (2001). Bridging the gap between ecology and spatial planning in landscape ecology. *Landscape Ecology* 16: 767-779.
- Opdam P (2005). Ecosystem networks: a spatial concept for integrative research and planning of landscapes. In: Tress B, Tress G, Fry G, Opdam P (eds.). *From landscape research to landscape planning: aspects of integration, education and application*. Wageningen UR Frontis Series, nr 12, pp. 51-65.
- Opdam P & Wascher DM (2004). Climate change meets habitat fragmentation: linking landscape and biogeographical scale levels in research and conservation. *Biological Conservation* 117: 285-297.
- Pedroli B, Pinto Correia T & Cornish P (2006). Landscape – what's in it? Trends in European landscape science and priority themes for concerted research. *Landscape Ecology* 21 (3): 421–430.
- Schama S (1995). *Landscape and Memory*. Harper Collins, London, 701 p.
- Shoard M (1985). *The theft of the countryside*. Temple Smith, London. 272 p.
- Stanners D & Bourdeau P (Eds. 1995). *Europe's Environment – The Dobříš Assessment*. A Report of the European Environment Agency, Copenhagen, Denmark, 680 p.
- Tress B, Tress G & Van der Valk A (2003). Interdisciplinarity and transdisciplinarity in landscape studies – the Wageningen DELTA approach. In: Tress B, Tress G, Van der Valk A & Fry G (eds.). *Interdisciplinary and Transdisciplinary Landscape Studies: Potential and Limitations*. DELTA series 2, Wageningen, pp. 8-15.
- Van Merriënboer J (2006). *Mansholt. Een biografie*. Uitgeverij Boom, Meppel, 493 p. [Mansholt. A biography]
- Vos CC & Opdam P (1993). *Landscape ecology of a stressed environment*. IALE Studies in Landscape Ecology 1. Chapman & Hall, London. 310 p.
- Wächter M (2003). The “Social-Ecological research” –Program. In: Tress B, Tress G, Van der Valk A & Fry G (eds.). *Interdisciplinary and Transdisciplinary Landscape Studies: Potential and Limitations*. DELTA series 2, Wageningen, pp. 19-27.
- Wascher DM (1996). *Naturschutz als Auftrag für die Europäische Umweltbildung*. In: Schleicher K. *Umweltbewußtsein und Umweltbildung in der Europäischen Union*, Hamburg, pp. 279-306. [Nature Conservation as a task for European Environmental Education]
- Wascher DM (ed. 2005). *European Landscape Character Areas – Typologies, Cartography and Indicators for the Assessment of Sustainable Landscapes*. Final Project Report as deliverable from the EU's Accompanying Measure project European Landscape Character Assessment Initiative (ELCAI), funded under the 5th Framework Programme on Energy, Environment and Sustainable Development (4.2.2), Alterra Report No. 1254, 150 p.
- Wu J & Hobbs R (eds. 2007). *Key Topics in Landscape Ecology*. Cambridge University Press, Cambridge, UK, 294 p.