Forschungen

Heft 100.2

Federal Office
for Building and
Regional Planning

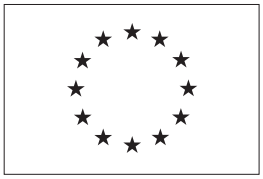
Criteria for the Spatial Differentiation of the EU Territory: Cultural Assets

Study Programme on European Spatial Planning

Coordinators:
A. Anzuini
Presidenza del Consiglio dei Ministri
Dipartimento per i Servizi Tecnici Nazionali – DSTN, Roma, Italy

W. Strubelt
Federal Office for Building and Regional Planning – BBR, Bonn, Germany

With specific contributions by:
H. Job (Ludwig-Maximilians-Universität Munich and University of Trier)
J. van der Borg (University of Venice)
A. Lisi (DSTN, Roma)
N. Lugeri (DSTN, Roma)
G. Stiens (BBR, Bonn)
D. Cecchin (University of Venice)
A. Russo (Erasmus University Rotterdam, University of Venice)
D. Metzler (University of Trier)
S. Weizenegger (Ludwig-Maximilians-Universität Munich and University of Trier)



Federal Ministry of
Transport, Building and
Housing

Bonn 2001

Published, prepared and printed by

Federal Office for Building and Regional Planning

The authors' views do not necessarily reflect the publisher's opinion.

Editorial staff

Prof. Dr. Wendelin Strubelt
Dr. Hans-Peter Gatzweiler
Dr. Robert Kaltenbrunner

Scientific Editor

Andrea Weber

Cartography

Dirk Gebhardt
Andreas Strade

Setting

Edeltraud Bahles
Marion Kickartz

Distributed by

Selbstverlag des Bundesamtes
für Bauwesen und Raumordnung
Deichmanns Aue 31–37, D-53179 Bonn
Postfach 21 01 50, D-53156 Bonn
Telefon: +49 (0) 18 88 - 4 01 - 22 09
Telefax: +49 (0) 18 88 - 4 01 - 22 92
E-Mail: selbstverlag@bbr.bund.de

and book trade

Price 10,00 Euro
plus forwarding expenses

ISSN 1435 – 4659 (Schriftenreihe)
ISBN 3 – 87994 – 430 – X

Preface

Since the informal meeting of Spatial Planning Ministers in Liège in 1993, the EU Member States and the European Commission have been jointly elaborating the European Spatial Development Perspective (ESDP). In the preceding years, through the signing of the Maastricht Treaty, the EU had acquired considerably extended competencies in various policy fields, such as regional policies, trans-European networks and environmental issues. These have a potentially great impact on the spatial development in the Member States and the planning parameters of their regions and cities. This growing influence on spatial development on the one hand is contrasted by a lack of formal competence and political organisation of spatial planning at the administrative and legislative EU level on the other hand. In opening the political debate on the perspectives of European spatial development the 15 Member States and the European Commission initiated an intensive communication process concerning space and territory in the context of European policies. By adopting the ESDP in May 1999, they expressed their agreement on common objectives and concepts for the future development of the territory of the EU.

The ESDP is based on certain assumptions concerning current trends and problems of spatial development in Europe and an assessment thereof. Economic and social cohesion, conservation of natural resources and cultural heritage and a more balanced competitiveness of the European heritage are the underlying objectives of the ESDP. The political guidelines for their realisation as defined in the document are (1) a balanced and polycentric urban system and a new urban-rural relationship, (2) parity of access to infrastructure and knowledge and (3) sustainable development, prudent management and protection of nature and of cultural heritage.

However, in the process leading up to the adoption of the ESDP it became obvious that, despite all the efforts, large gaps in terms of comparable, spatially relevant data and a sound knowledge of spatial processes in Europe still remain. Acknowledging this, the ESDP is developing strategies to overcome these deficits. The most important of these strategies is the institutionalisation of a "European Spatial Planning Observatory Network" (ESPON). In the ESPON, spatial research institutes of the Member States – as so called national focal points – are to prepare and exchange information, thus constituting an observatory in the form of a research network. For Germany, the Federal Office for Building and Regional Planning (BBR) has assumed the function of a national focal point. From 1998 to 2000, the ESPON was tested in the framework of a study programme in accordance with Article 10 of the European Regional Development Fund.

During the ESDP process seven criteria were identified for which reliable indicators are needed to monitor the progress in realising the main objectives of the ESDP, i.e. the support of a balanced and sustainable development of the EU territory and its cities and regions:

- Geographical position
- Economic strength
- Social integration
- Spatial integration
- Land-use pressure
- Natural assets
- Cultural assets

A substantial part of the Study Programme dealt with the elaboration of conceptual approaches and indicators for these seven criteria[1]. It was asked whether and how these criteria can be conceptualised and put into operation as indicators for spatial development, and to what extent it is possible to illustrate these indicators with existing, accessible empirical data. In accordance with the seven criteria, seven international working groups were formed. Their results formed the basis for the final report of the Study Programme compiled by the co-ordinators.[2] Germany played an active part in three of the seven working groups: geographical position, economic strength and cultural assets. The work carried out on these three topics as well as the final report as such is now published in bilingual versions in the BBR research report series (*Forschungen*).

In the present volume, the findings concerning concepts and indicators of cultural assets are documented.

The cultural assets of a region shape our societies as well as economic productivity, the ecological situation and social

(1)
The Study Programme considered three main topics. The other two were strategic studies on rural-urban partnership and innovative cartography of spatial planning in a European context.

(2)
The final report is also availbale as cd-rom and can be ordered at www.nordregio.se.

integration, and to a large extent influence spatial development in Europe. They appear not only in the form of language, music or the social behaviour of the inhabitants, but are also characterised by human transformation of and influence on the environment in the past. Not only does the term *assets* have the material connotation of wealth, property or inheritance, it also describes the cultural foundation and cultural possessions in a more comprehensive manner, in the form of collective property and memory, which lend social identity and cohesion. The area of Europe is characterised by extremely contrasting constellations, and therefore also legacies, which remain of prime importance for the identity of individual nations, regions, cities or landscapes. In the face of globalisation in particular, local background and local and regional identity represent an important component in the future development of a region. Cultural facilities and the attractiveness of a city or region are important determinants of so-called soft location factors. The structure of the environment in which we live, with its regional and local peculiarities, is to a greater extent than we care to imagine a product of human and social interaction over long periods of time and across many centuries. And this beyond the many changes and the destruction which has characterised European spatial interrelations. Cultural heritage plays an important role in the future of Europe, even if its determinants originate in the past.

The Cultural Assets group was presented with considerable problems in acquiring knowledge in relation to these constellations and the complexity of the object under investigation. It proved very difficult to place cultural heritage within the confines of a grid which can be unlocked with the aid of indicators founded on a scientific approach. In this context it is a stroke of good fortune that the European Commission chose representatives from Italy and the Federal Republic of Germany to be in overall charge of the project, as it enabled different national traditions and contrasting ways of looking at cultural heritage to be brought together into a single European perspective. From an Italian perspective this meant in particular the architectural heritage, which has shaped Italian life for over 2000 years, and its use through tourism. From the German perspective it is the cultural landscapes which, reflect an important aspect of spatial development. Against both these backgrounds the attempt was made to bring the object of cultural heritage into an analytical framework with existing and newly developed indicators. In a different manner to colleagues in the *Economic Strength* working group, for example, the analysts were faced with the problem here that, on the one hand, there is very little data available, and on the other hand the existing data can generally not be compared across individual European countries. This applies in particular to the architectural heritage, and can presumably only be countered by carefully directed research and acquisition of data on site, as well as by means of qualitative case studies. With regard to cultural landscapes, the option of expanding existing data on the use of areas by long distance reconnaissance methods is also available. The present study by the German-Italian working group, which builds on important contributions from the other Member States, would like to stimulate ideas. It will be supplemented with an article by Claus-Peter Echter from the German Institute for Urban Studies, who considers the developed European perspective once again in the context of the situation concerning the preservation of historical monuments in Germany and the current debates surrounding its future.

We hope that the approach to the following study emphasises the importance of cultural heritage for the future spatial development of Europe and contributes to augmenting its status. This study may be able to provide initial important indications with regard to the responsibility of preserving the past and the key aspect of historical monument preservation and avoiding the tendency to create living museums.

We would like to thank all those who have contributed to this study, the members of the working groups and those who participated in discussions as part of the study programme, as well as colleagues from the institutes in Italy and Germany who produced important pioneering work. We would also like to thank the European Commission and the national ministers responsible for spatial development who co-financed their focal points for the elaboration of the Study Programme.

In the course of the Study Programme, around 200 experts from the 15 EU Member States co-operated in a multi-layered international network: the network of national focal points, the national networks of spatial planning experts and 13 international working groups. As a test phase for a future spatial planning observatory network it proved to be a challenging and enriching experience. We firmly believe that the network approach of the Study Programme has shown its advantages and potential for the observation of spatial development in the European Union, and we hope that this approach will be continued in the near future. In our experience, and in respect of the inter-personal relationships which we were able to develop through this Study Programme, we can state that European co-operation can also prove successful even against the background of contrasting national traits and conditions, and that such co-operation is enjoyable and represents an investment in the future.

Prof. Dr. Wendelin Strubelt

Federal Office for Building and
Regional Planning, Bonn

Contents

Tables

Figures

Maps

The Preservation of Historical Monuments in Germany and the Study on Cultural Assets in Europe

Claus-Peter Echter
German Institute of Urban Affairs (Difu), Cologne

The Preservation of Historical Monuments in Germany and the Study on Cultural Assets in Europe

Claus-Peter Echter

Introduction

The proportion of monuments forming part of the building stock varies throughout Europe from between two (England) and ten percent (Switzerland). German is ranked in the middle here, with an estimated proportion of between three and five percent. In Berlin, the Federal capital, four percent of all buildings are classified as historical monuments. In spite of this somewhat modest proportion, the cultural heritage, and thus the historical wealth of the different countries, is regarded as an increasingly important aspect of spatial planning in Europe.

Cultural assets – the approach to the study

The approach to the study on cultural assets in the framework of the Study Programme on European Spatial Planning, namely preservation of the cultural heritage, socio-economic growth and sustainable development[1] – is finding considerable resonance amongst specialists in the field and in politics, even if it does not strike at the core of monument preservation work: registration, protection and care of monuments and ensembles. The aim of the study was to determine several indicators which could provide information on the importance of cultural heritage[2] and to acquire criteria for measuring the importance of and also danger to historical cities, building and ground monuments and ensembles. It proved extremely difficult to obtain meaningful data for these tasks. In spite of this, the working group was able to draw up a report extremely quickly in which the indicators which emphasise, define, describe and illustrate in map form the importance of, danger to and management of building heritage. The report deals with the following three respectively four indicators: "presence of cultural sites"/ "concentration of cultural sites", "use pressure on cultural sites", "touristicity of the cultural sites" as well as "sustainability of use of cultural heritage" as a combined indicator.

Cultural heritage in spatial planning is the theme of the introductory chapter of the report on cultural assets. It calls for an innovative strategy for the maintenance of our cultural heritage.[3] This strategy implies that the protection of historical buildings represents an important prerequisite for peace and stability and provides social and economic opportunities at the same time. The preservation of culture contributes to the identity of the citizens, creates jobs, supports the economy and promotes the responsible handling of societal resources. An important element of the strategy is the "wise" use of the historical heritage which is compatible with sustainable development.

Tourism is regarded as the main use for the historical heritage[4], which ignores above all the use for living space. The vast majority of all monuments in Germany – and not just here – are privately used residential buildings. The authors justify focusing on use for tourism by the fact that the sustainable use of the cultural heritage, particularly historical cities frequented by large numbers of tourists, demands enormous planning efforts and effective management.[5] Overemphasising the aspect of tourism in the study nevertheless remains questionable. Likewise the retention of the traditional understanding of a monument to assist in quantification and in examining the consequences of the upkeep of the historical heritage in terms of spatial planning is also problematic.[6] Conversely, the authors' statement that the preservation of historical monuments has gained in importance in the field of planning remains completely undisputed.

Important results of the study on cultural assets

In view of the poor statistical starting point, the authors regard their study as a first step towards a "wiser" use of the cultural heritage through spatial planning across Europe. They knew that reliable indicators for the quality, importance and future development of cultural assets still have to be found, as the gaps are currently still too large in respect of the availability and comparability of data. By elaborating their indicators for the built heritage, which they have illustrated in five maps, the authors have succeeded in making considerable progress.

(1)
see pages 15 f. of the study in this volume

(2)
Federal Office for Building and Regional Planning: Study Programme on European Spatial Planning - Final Report. = Forschungen 103.2. Bonn 2001, pp. 9 f.

(3)
see pages 17 ff. of the study in this volume

(4)
Ibid

(5)
Ibid

(6)
Ibid

The indicators "presence of cultural sites/ concentration of cultural sites", (map B-1 and B-2) are a measure of the cultural wealth of a region and provide an insight into the spatial organisation of the built heritage. Peripheral regions such as south-east Sweden, Scotland, Ireland, the main Italian Islands and the Peloponnesus come off well in terms of the total number of monuments, and areas in central Europe such as Flanders and Saxony as well as large cities such as Rome, London, Dublin and Lisbon come off well in terms of the relative number of monuments.

The pressure of use, as shown in map B-3, is very high in cities such as Seville, Venice, Florence, Vienna and in the traditional tourist regions, the Alpine-Adriatic region (north-east Italy, Austria, southern Germany) and the Mediterranean coast from western Italy to southern Spain including the western Mediterranean islands. The indicator for tourist capacity (map B-4) stands in very strong correlation to the indicator *use pressure of cultural sites*. For planners, the differences between maps B-3 and B-4 are of considerable significance. They enable them to determine potential crisis areas in which use of the building heritage is sustainable. The authors regard this information, which is derived from the description of "the European cultural area" based on the four indicators, as particularly valuable. map B-5 shows that the problems of sustainable use of the cultural heritage are not particularly pressing in the vast majority of European regions. Regions where pressure of use is great abound in central Italy, the Spanish, French and Greek coasts as well as western Ireland. Areas where the cultural heritage potential does not yet appear exhausted are concentrated in northern France, Belgium and Germany, such as Cologne, for example.

The three case studies on the non-sustainable use of the cultural heritage for the Alhambra in Granada, Venice and the Belgian province of western Flanders have shown that investigations into the load-bearing capacity of the built heritage are urgently required. This topic plays a decisive role for the management and preservation of the cultural heritage at a local level. For problem areas, i.e. historical towns and sites frequented by large numbers of tourists, valuable indications can be derived from such studies. In addition it became clear that studies on the relationships between towns and their built heritage, as well as their surroundings and their cultural landscape, were required.[7]

The Alhambra is an example of very efficiently organised entry to a building monument. The study on Venice clearly shows the conflicts which arise if the socio-economic load-bearing capacity of an "art city" is damaged. The case of western Flanders and its cultural capital, Bruges, shows how difficult it is to alter tourism development models, especially when there are coordination problems within a region and the various protagonists in the central city[8]. More precise details would have been desirable in the case study cities of Venice and Bruges on the state of historical monument preservation, the compilation of inventories and instruments or strategies for the preservation of monuments.

The European-Heritage.Net project

The European harmonisation of standards in the field of monument preservation is particularly important. Although consensus with regard to assessment standards is a long way off, it nevertheless remains desirable. Since both the conventions in Granada on 3.10.1985 on the protection of historical monuments and in Malta on 16.2.1992 on the protection of the archaeological heritage, the exchange of information concerning the practice of protection of historical monuments in European states is considered urgently necessary.

In 1996 a report was published on European monument preservation policies with corresponding reports from 27 countries.[9] The publication provided an overview of the political concepts of cultural heritage in these states, and picked out the system of protecting historical monuments, the state of compilation of inventories, support programmes and restoration procedures as the central themes. From 1998 the Cultural Heritage Department of the Council of Europe developed an extremely informative information system in the framework of the European Heritage Information Network/HEREIN project, which can be accessed via the Council of Europe internet address. Its aim is to make the latest information available in the internet.

(7) Federal Office for Building and Regional Planning: Study Programme on European Spatial Planning – Final Report. = Forschungen 103.2. Bonn 2001, pp. 64 ff.

(8) See pages 81 f. of the study in this volume

(9) Council of Europe (ed.), Report on cultural heritage policies in Europe, Strasbourg, 1996

The European-Heritage.Net project[10] is intended to make access to important aspects of European cultural heritage easier, and in particular to provide experts in the preservation of historical monuments with constantly up-to-date information systems. The information system HEREIN is being developed in stages over a period of 2 years – from November 1998 to November 2000 – by a consortium comprising the central authorities for the protection of historical monuments in six European countries, the computer company Bull S.A. and local IT companies, with the support of the Council of Europe. As well as the project partners, the European Union is also contributing to the financing of the project through its Application Programme. ICOMOS is also one of the project partners.

By 1999 the information system for the six partner countries (France, Hungary, Ireland, Norway, Spain and Great Britain) had been elaborated. To date it has not been possible to install the extended database for the additional 21 countries – including Germany – which was planned for the year 2000. An expansion of the programme at a overall European level is scheduled from 2001.

The HEREIN information system covers an extremely broad range of subjects which are also of particular importance for the ESPON project. These include, amongst other things:

- contribution of historical monument protection to sustainable development,
- short and medium term historical monument preservation strategies,
- institutions and initiatives,
- staffing levels,
- the support system,
- the specific legislation on historical monument protection,
- the manner of compilation of inventories,
- preservation of historical monuments and spatial planning,
- historical monument management,
- use and upgrading of historical monuments,
- public relations work,
- tourism and preservation of historical monuments,
- publications,
- number and kind of monuments as well as
- ownership status.

The HEREIN information system enables meaningful data concerning the number and kind of historical monuments and ensembles in Spain, France, Great Britain and Hungary (cf. table 1) to be derived. With a total of approximately 450,000, the United Kingdom has the largest number of historical monuments. Statistical information on historical monuments is also available here for England (364,425), Wales (23,125), Scotland (50,611) and Northern Ireland (8,681). Moreover, the files contain information on the different categories of historical buildings in all the regions of Spain, from Andalucia to Murcia. It ultimately becomes clear that countries such as Great Britain and France have different assessment standards for property incorporated into ensembles. Whilst France has protected 89 extremely valuable “secteurs sauvegardés“ such as Versailles and Avignon, in England however, the total number of “conservation

(10) European-Heritage.Net, www.european-heritage.net

Table 1
Number of historical monuments and ensembles in selected European states 2000

States	Historical monuments	Archaeological monuments and sites	Ensembles [1] and historical sites[2]	Total
Spain	11,618	635	963	13,216
France	39,994		8,046	48,040
Great Britain	446,842	17,351	9,731	482,692
Hungary	10,357		219	10,576

1 *Conservation areas*: France 89, Great Britain 9,324, Hungary 25
2 *Historical sites*: Spain 751, France 7,712, Great Britain 407

Data: European-Heritage.Net, computations: Echter

areas“ amounts to 8,724. Nevertheless, in Scotland, in a similar manner to France, only 204 exceptional “conservation areas“ are identified.

There is a vast amount of information in the HEREIN project files. There are only a few cases for which no data are available. For example, there is no information on the total number of historical monuments in Ireland and Norway.

The HEREIN information system provides important starting points for a continuation of the ESPON project.

Concerning the situation in respect of the preservation of historical monuments in Germany

Whilst complaints are heard in other European countries that there is no lobby to represent the stone witnesses of the past, the commitment to the maintenance of historical buildings has enjoyed increasing popularity in Germany since the European Architectural Heritage Year in 1975. The preservation of historical monuments is regarded as one of the few remaining fields “where a consensus between public spiritedness and political will continues to exist”.

Until now, expenditure on the preservation of monuments has also not been dramatically curtailed – in spite of growing social poverty. Politicians regard funds for the preservation of monuments as investments in the future, which carve identities, create jobs and encourage the responsible handling of societal resources.

The preservation of historical monuments has even become an export hit. Not only is “German know-how” in the maintenance and safeguarding of historical buildings in demand in neighbouring countries, but in Asia too. “The Federal Republic occupies a leading position worldwide in the field of preservation of historical monuments.”[11] This applies not only for the restoration of monuments but also in terms of the availability of a large variety of informative publications on the subject of monument preservation and practical instruments[12].

Although Germany is unable to compete with neighbouring European states such as Italy and France in respect of outstanding historical monuments, its extended concept of the term means that it is undoubtedly the country with the most historical monuments. Estimates range from between 900,000 and 1.2 million historical monuments, of which approximately 400,000 can be apportioned to the new Laender. No less numerous are the number of recorded ensembles and historical sites. Bavaria reveals 900 ensembles, of which 80 are in Munich alone. At the beginning of the year 2000 there were 173 historical areas identified in North Rhine-Westphalia.

The protection of historical sites through the implementation of statutes involves a considerable amount of specialised preparatory work and administrative activity. However, it enables clearly outlined protection for a large number of building installations and historical structures to be established at a single stroke. It is therefore to be hoped that the flexible and very practicable instrument of historical site protection will be used more intensively, and that further historical sites will be identified in North Rhine-Westphalia, Mecklenburg-West Pomerania, Thuringia and Saxony.

With regard to cooperation and linking between town planning and monument preservation, the urban development, planning related preservation of historical buildings or ensembles retains considerable importance in practice. Monument preservation in urban development is understood to mean activities concerned with the preservation of historical monuments which extend beyond individual objects to the maintenance of historical ensembles and urban structures and local and cultural forms of landscape.

Urban development or larger scale preservation of historical monuments developed through recognition of the fact that the sum of maintained individual historical monuments does not guarantee the preservation of the townscape. Its aim is the conservation of historical towns, their ancient structures and spatial qualities.

It is not the aesthetic quality of individual buildings which is the important aspect of ensembles, rather the visual effect and readability of the overall context. This effect is accounted for in the architectural proportions, in the composition of the ground plan and elevation, in the rhythmical sequence of the facades and in the spaces created by streets and squares.

(11)
Birgit Matuschek-Labitzke, German aid for the great Buddha. The Federal Republic of Germany occupies a leading position in the field of preservation of historical buildings, in: Süddeutsche Zeitung, 25.9.1996

For an overview of preservation of historical monuments in Germany cf. *Gottfried Kiesow*, Denkmalpflege in Deutschland. Eine Einführung, Stuttgart 2000 as well as *Michael Petzet and Gert Mader*, Praktische Denkmalpflege, 2nd edition, Stuttgart 1995.

(12)
Cf. an assessment of the quality of currently available, selected, “recent” documentation and instruments in: *Claus-Peter Echter*, Grundlagen und Arbeitshilfen städtischer Denkmalpflege in Deutschland, Berlin 1999, =Difu-Beiträge zur Stadtforschung, vol. 28

Towards the end of the 1990s, monument preservation in urban development became one of the main issues in historical monument preservation, particularly in the new Laender of the Federal Republic of Germany.

The instruments of monument preservation in urban development range from the development plans (zoning plan, building plan), in which account must be taken of historical monument preservation requirements, to the statutes on conservation and style and the identification of historical sites. As well as these legal instruments, aids such as the building age plan for urban redevelopment, target planning and the framework plan for monument preservation and the historical monument preservation plan provide essential foundations for the development of sound planning and operational concepts.

Admittedly, complaints are heard about the lack of staff in official historical monument departments (of the Federal states and local authorities), yet here too we are able to stand comparison with other European countries.

Preventive strategies are gaining in importance for monument preservation. Citizens can only be encouraged to become more receptive towards maintaining the cultural heritage through active monument preservation policies, not through sanctions. Important elements in such prophylactic monument preservation are:

- examination of building documents from the past,
- protection of building and ground monuments,
- identification of ensembles,
- early introduction of aspects of historical monument preservation in the elaboration of urban development and town planning concepts and in the discussion of large building projects,
- continuous coordination within authorities responsible for monuments and building authorities,
- direct and indirect grants for monuments,
- information and advice for owners of historical monuments and
- comprehensive public information programmes.

Dieter Hoffmann-Axthelm's theses concerning the future of historical monument preservation in Germany

Since the seventies, the preservation of historical monuments has gained in influence in Germany. Midway through the year 2000 the preservation of historical monuments is the subject of articles in many newspapers. In March 2000 Dieter Hoffmann-Axthelm, the Berlin town planning expert, was commissioned by the Federal parliamentary group "Bündnis 90/ Die Grünen" to draw up a report on the denationalisation of historical monument preservation.[13] He argued for an extensive revision of the previous form of monument preservation. State preservation should be abolished in favour of private support, which should be taken care of by the enlightened citizens' society itself. Decisions should only be made by the population, particularly at a local level.[14] This will prevent the continued "enforcement" of such monuments "which people do not even want", a thesis which brought him the accusation of "populistic architectural Darwinism" from the Munich architecture historian Winfried Nerdinger.

For the Green party in particular, such a report lacks reference to the preservation of resources through monument protection, as this represents a substantial contribution to environmental protection. The most fundamental function of historical monument preservation is to "sustain": this principle has always generated ideas which intersect different departments. With its experience in the application of solutions which are fit for the future it can make a concrete contribution to Agenda 21.[15] The sustainability concept of Agenda 21 corresponds with the principle of maintaining the essence of a place which characterises monument preservation.

Antje Vollmer, the Green party spokeswoman on cultural and educational policy and Vice President of the Federal Parliament, on whose initiative the report is founded, has summarised her ideas in the form of theses.[16] While she recognises a general need for reform and possibility for changes concerning monument protection, Hoffmann-Axthelm goes into more detail. He proposes:

1. that state protection of historical monuments should be limited to publicly owned objects and

(13)
Dieter Hoffmann-Axthelm, Kann die Denkmalpflege entstaatlicht werden? A polemic – report for the federal parliamentary group Bündnis 90/ Die Grünen, March 2000 without indication of place of publication. See also same, Alles bewahren heißt nichts erhalten. Die Denkmalpflege ist am Ende und braucht eine neue Aufgabe: Die Suche nach den Projektionen gesellschaftlichen Glücks, in: Die Zeit, 25.5.2000 and same, Dolchstoßlegende für Denkmalpfleger. Die Forderung nach einer Entstaatlichung des Denkmalschutzes hat einen Kulturkampf ausgelöst, in: Berliner Zeitung, 8./9. 7. 2000

(14)
Dieter Hoffmann-Axthelm, Kann die Denkmalpflege entstaat-licht werden? p. 20f.

(15)
Agenda 21 was passed at the United Nations Environment and Development Conference in June 1992 in Rio de Janeiro. In the concluding document urgent action was determined to protect the planet and support for sustainable development agreed. The Agenda is meant as a programme of action for the transition to the 21st century

(16)
Antje Vollmer, Zwölf Thesen zum Thema Denkmalschutz. Reformbedarf und Veränderungsmöglichkeiten, in: Kultur-politische Mitteilungen no.89 II/2000, p. 11

2. the retreat from the idea of monuments as objects which are witnesses to history to monuments which make an impression through their beauty and distinctiveness.

The relationship between the citizen and the authorities is not an altogether harmonious one. Those responsible for the preservation of monuments are often forced to intervene and make owners justify and agree their plans. Hoffmann-Axthelm uses this difficult situation for historical monument preservation as an opportunity to make a general statement. He characterises a person involved in the preservation of historical monuments as an "appointed self-seeker", who spreads his political opinion under the cloak of administrative responsibility.[17] Contrary to this opinion, those involved in the preservation of historical monuments can also be described as politically informed and competent, corresponding with the image of the responsible citizen. Hoffmann-Axthelm calls those involved in the preservation of monuments whom he criticises as "hunters and gatherers"[18] and doubts their ability to judge.

The exclusion of private historical monuments from public maintenance would cause a destructive breach. The suggestion of attaching great importance to beauty in determining the value of historical monuments is even more radical.

The potential for destruction through changes in taste can be illustrated time and again in the history of monument preservation. Uncomfortable objects would have no chance of becoming monuments, although in their capacity to shape identity they are, like all other historical monuments, essential material witnesses of enlightened memory and responsible planning. In restricting monuments to the time prior to 1840 and to "attractive monuments" Hoffmann-Axthelm finds himself in conflict with all laws on the protection of monuments which have come into force in Germany since the Second World War and, in respect of his trenchant aesthetic argument, also with the Venice Charter of 1964. Here it is stated that "the concept of an historic monument ... applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time. The aim ... is to safeguard them no less as works of art than as historical evidence".[19] The chairman of the association of national monument conservationists in the Federal Republic of Germany, Jörg Haspel, writes in relation to this: "Not only aesthetic objects have a value as monuments but also objects which document history ... of particular value as monuments are objects which bear witness to the development of Europe in the post-feudal world.[20]

It was only 30 years ago that the time and value limits in respect of monument preservation shifted from 1870 to 1945, thus recognising that historical evidence and new building was worth protecting in principle.[21] In the meantime, building monuments from the 1950s and 1960s and those of the German Democratic Republic (GDR), considered a closed epoch, are protected.

Hoffmann-Axthelm and Vollmer suggest a reduction and minimisation of the historical monument stock. On what types of monument should an exclusion list concentrate:

- industrial monuments,
- characteristic building monuments of the Nazi period,
- buildings of the GDR period,
- urban development monuments or
- functionalistic classical modern buildings?

With regard to GDR buildings in particular, Hoffmann-Axthelm allows himself to be lead by very specific experiences in the central district of Berlin. With all the above monument categories it remains undisputed – at least amongst monument experts, less so in the public domain – that they must be considered in terms of historical monument preservation.

Hoffmann-Axthelm's and Vollmer's analyses are original and in many respects also correct. What follows, however, is a suggestion for a solution which is fundamentally incorrect.[22] The problem of the large number of monuments still awaits a reasonable solution: "This cannot lie in restricting the numbers, which is orientated around the financial means of the state, however, but only in differentiating the approach, which could constitute for example a different treatment of objects in an overall system on the one hand, and those which represent individual cultural monuments on the other."[23]

(17) *Dieter Hoffmann-Axthelm*, Kann die Denkmalpflege entstaat-licht werden? p. 7.

(18) Ibid. p. 15.

(19) *ICOMOS*, The Venice Charter. International Charter for the Conservation and Restoration of Monuments and Sites, Venice 25.–31.5.1964

(20) *Jörg Haspel*, Die Summe des Ganzen. Denkmalschutz ist eine staatliche Aufgabe, in: FAZ 17.5.2000

(21) Cf. *Hanno Rautenberg*, Ballast abwerfen. Warum Antje Vollmer, die kulturpolitische Sprecherin der Grünen, den Denkmalschutz auflösen möchte, in: Die Zeit 19.4.2000

(22) Cf. *Benedikt Hotze*, Schönheit als Denkmalkern, in: Bauwelt, vol.91 (2000), no. 18, p. 15

(23) *Gerd Weiß*, Aus aktuellem Anlaß, in: Landesamt für Denkmalpflege in Hessen (ed.), Denkmalpflege und Kulturgeschichte, 2000, no. 1, p. 1

Antje Vollmer's and Dieter Hoffmann-Axthelm's call for an improvement in dialogue between bodies responsible for historical monuments and the owners is very thought-provoking. Both reveal a sore point in monument preservation here. The service and consultation work of bodies responsible for historical monuments must be considerably improved, otherwise preservation will lose credibility. The argument concerning a lack of financial and staffing support does not hold water. More agencies and advice centres are necessary. Monument management is required with large projects such as the re-use of old industrial sites. As the legal representative of cultural monuments, the monument conservationist also has to pursue economic goals and develop strategies for saving monuments. In so doing, he will have to enter coalitions with financial experts and property managers.

Denationalisation is not necessary, but rather the reinforcement of the protection of historical monuments. Considerable public effort is essential in this respect. This debate presents the opportunity to promote this idea. A second opportunity exists in explaining the principles of modern historical monument protection in the confrontation with Hoffmann-Axthelm's theses.[24]

Concerning the problem of representing German historical monument preservation in the report on cultural assets

- The report on cultural assets gives a false picture of historical monument preservation in Germany. According to the maps "Presence of cultural sites" and "Concentration of cultural sites" (B-1 and B-2) Germany can be characterised as the country with the lowest concentration of historical monuments in Europe, with many urban and rural districts with a very small number of monuments. Nevertheless, a considerable proportion of areas also have a high concentration of historical monuments. Germany's poor showing, which does not correspond with the reality of the situation, can be traced back to the approach selected by the Italian authors, namely to classify historical cities, cultural sites and monuments on the basis of information contained in TCI (Italian Tourist Club) travel guides. As well as the absence of a valid definition of cultural heritage across Europe, the reason for this approach is also the dearth of information on historical monuments (monument and site lists), which has been justly criticised, and a lack of homogeneity at a national or European level. Coordination with ICOMOS (International Council on Monuments and Sites) as well as with the cultural heritage department of the Council of Europe, for example, would also not have solved the problem of the insufficient availability of information, although cooperation would nevertheless have been helpful. Even after the maps had been drawn up, national experts could have provided useful feedback in order to qualify the statement in relation to Germany, for example. The Italian travel guide which serves as the basis for recording historical monuments conveys a picture of the urban landscape which is characterised above all by traditional monuments such as churches, museums, castles and parks.[25] In Germany one frequently comes across another kind of monument, the so-called simple monuments: residential buildings from the time of German unification in 1871 and the turn of the century, garden cities, housing estates from the 1920s and 1950s, industrial monuments, half-timbered houses and rural architecture.
- The historical monuments list and monument topography were given as basic indicators of concentration of cultural sites/monuments and stratification in the questionnaire, and further documentation and instruments such as large scale inventory, Bavarian historical sites list, special inventories of industrial monuments, the monument preservation plan, target planning for monument preservation and building age plan were listed in the framework of the case studies. These publications and instruments were not taken into account anywhere in the report, although monument topography and the monument preservation plan, for example, reflect general historical structures at the urban development scale, the latter in addition being a suitable instrument for encouraging sustainable use of the cultural heritage.

(24) Cf. *Sabine Weissler*, Alle Macht der Schönheit? Alle reden über den Denkmalschutz. Er taugt nicht mehr viel, sagt Antje Vollmer. Dabei sollte er nicht abgeschafft, sondern verstärkt werden. In: Tagesspiegel 29.6.2000

(25) *Mechthild Agreiter,* Das Münchenbild in italienischen Reiseführern, Geographische Rundschau, 2000, no. 3, pp. 35–39

- In contrast to the chapter concerning the cultural landscape, complaints also exist in respect of the wholly inadequate bibliography, which focuses almost exclusively on subjects such as tourism, urban development and historical legacy, and concentrates on countries such as Italy, Holland and Great Britain, while titles concerning the preservation of historical monuments at a national and European level are absent. The authors themselves pointed out (see chapter B-1.3, pages 68 f.) that they received an exhaustive list of studies, examples of cases and details of literature. These useful details were not reflected in the report, although this would have been of great interest to national experts.

Finally, it should also be mentioned that the inventory for the whole of Europe, which was submitted to the ministers of the EU member states in 1996 in Venice both as a map and in the form of a table, could also have been presented.[26]

Conclusions

- In a very short space of time the working group carried out indispensable pioneering work on the complex of monument preservation and spatial planning, setting standards for further research in a European context.
- The preservation of the cultural heritage and sustainable development approach, with its many complex variables, has proved itself viable.
- The elaboration of three respectively four from an original total of 17 indicators “presencce of cultural sites“/ “concentration of cultural sites“, “use pressure on cultural sites“, “touristicity of cultural site“ and the combined indicator “sustainability of use of cultural heritagee“ also showes itself to be worthwhile.
- The elaboration of maps on a European scale is extremely commendable.
- One of the most remarkable rsults of the study is the emphasis on the necessity for reliable, coordinated an easily accessible data as a prerequisite for every further attempt to plan the sustainable development of the European heritage.
- Although there is a great deal of knowledge and information on world heritage monuments, this is lacking in respect of standard monuments both at national level and definitely at European level. There is a need for research at this level into the number and quality of monuments and historical sites. Such studies should be initiated by the European Union. For this reason the ESPON project should be continued.
- Improved cooperation in this field between the Council of Europe, UNESCO, the Commission of the European Union and ICOMOS is necessary at a European level.
- Due to the lack of basic monument preservation data, cross links in particular with monument preservation authorities, but also with the German National Committee for Monument Preservation, the monument preservation subcommittee of the conference of the ministers of culture, the German foundation for the preservation of historical monuments and local monument preservation is necessary at a German level in the continuation of the project.

(26) Federal Office for Building and Regional Planning: Study Programme on European Spatial Planning - Final Report. = Forschungen 103.2. Bonn 2001, p. 105

Bibliography

Agreiter, Mechthild, Das Münchenbild in italienischen Reiseführern, Geographische Rundschau, 2000, no. 3, pp. 35–39

Council of Europe (ed.), Report on cultural heritage policies in Europe, Strasbourg 1996

Echter, Claus-Peter, Grundlagen und Arbeitshilfen städtischer Denkmalpflege in Deutschland, Berlin 1999 (Difu-Beiträge zur Stadtforschung, vol. 28)

European-Heritage.Net, www.european–heritage.net

Federal Office for Building and Regional Planning (BBR), Study Programme on European Spatial Planning - Final Report. = Forschungen 103.2. Bonn 2001

Haspel, Jörg, Die Summe des Ganzen. Denkmalschutz ist eine staatliche Aufgabe, in: FAZ 17.5.2000

Hoffmann-Axthelm, Dieter, Kann die Denkmalpflege entstaatlicht werden? – eine Streitschrift – Report for the parliamentary group Bündnis 90/Die Grünen, 2000, without indication of place of publication

Hoffmann-Axthelm, Dieter, Alles bewahren heißt nichts erhalten. In: Die Zeit 25.5.2000

Hoffmann-Axthelm, Dieter, Dolchstoßlegende für Denkmalpfleger, in: Berliner Zeitung 8./9.7.2000

Hotze, Benedikt, Schönheit als Denkmalkern, in: Bauwelt, vol. 91 (2000), no. 18, p. 15

ICOMOS, The Venice Charter (1964)

Kiesow, Gottfried, Denkmalpflege in Deutschland. Eine Einführung, Stuttgart 2000

Matuschek-Labitzke, Birgit, Deutsche Hilfe für den großen Buddha. Auf dem Gebiet der Denkmalpflege nimmt die Bundesrepublik weltweit eine Spitzenstellung ein. In: Süddeutsche Zeitung 25.9.1996

Petzet, Michael and Gert Mader, Praktische Denkmalpflege, 2nd edition, Stuttgart 1995

Rautenberg, Hanno, Ballast abwerfen, in: Die Zeit 19.4.2000

Vollmer, Antje, Zwölf Thesen zum Thema Denkmalschutz, Reformbedarf und Veränderungsmöglichkeiten, in: Kulturpolitische Mitteilungen no.89 II/2000, p. 11

Weiß, Gerd, Aus aktuellem Anlaß, in: Landesamt für Denkmalpflege in Hessen (ed.), Denkmalpflege und Kulturgeschichte, 2000, no. 1, p. 1

Weissler, Sabine, Alle Macht der Schönheit, in: Tagesspiegel 29.6.2000

Criteria for the Spatial Differentiation of the EU Territory: Cultural Assets

Study Programme on European Spatial Planning

Coordinators:
A. Anzuini
Presidenza del Consiglio dei Ministri
Dipartimento per i Servizi Tecnici Nazionali – DSTN, Roma, Italy

W. Strubelt
Bundesamt für Bauwesen und Raumordnung – BBR, Bonn, Germany

With specific contributions by:
H. Job (Ludwig-Maximilians-Universität Munich and University of Trier)
J. van der Borg (University of Venice)
A. Lisi (DSTN, Rom)
N. Lugeri (DSTN, Rom)
G. Stiens (BBR, Bonn)
D. Cecchin (University of Venice)
A. Russo (Erasmus University Rotterdam)
D. Metzler (University of Trier)
S. Weizenegger (Ludwig-Maximilians-Universität Munich and University of Trier)

Preface and Structure of the Work

The experiment has come to an end. Good results? Bad results? For sure the various working groups have obtained plenty of results out of their efforts. First of all, thoroughly new issues have been addressed, new points of view have been adopted, new methodologies have been utilised. Secondly, the academic world has been intermingling with the world of policy and decision-making in an overall scenario that has been hardly established before. Last but not least, new contacts and opportunities of collaboration were established between people and institutions that in many cases had never heard before about each other, coming from very different backgrounds – or that knew each other very well, either having already been working together or not.

This has happened both among the different NFPs and in between the local networks of each NFP.

When Italy got assigned the task of addressing the issue about cultural heritage, coupled to the German NFP, probably one might have thought that Germany should have had to keep the work not too concentrated on "art cities". Nevertheless, the very important role played in our Europe's culture by landscapes, their structure, their evolution and sensitivity to degradation, was one very deeply felt in Italy, too. That is also witnessed by the recently organised first National Conference on Cultural Landscapes, which included foreign sessions, and by the efforts of the Italian Ministry of Cultural Assets towards the release of the Convention on Cultural Landscapes.

And indeed a very good tuning in the team was soon set up – also thanks to the fact that both NFPs were central public administrations – that brought the working group to release a first "roll-out" text (Stockholm February 99). In this document, the double aspect of the same issue – landscapes and built heritage – was presented together with the elements that should define the main class of the indicators to be individuated ("significance" and "endangering").

Nevertheless, it soon became clear that the goal of the working group was to be an extraordinarily difficult one, mainly because of the scarcity of previous attempts in the field. Indeed the *tabula rasa* before us was quite stimulating, leaving more than a degree of freedom to develop the study.

After the discussion in Stockholm and the entry of the Italian pool of experts in late February, the working group decided to focus on the two sub-topics in a parallel way, due to the specific skill of the respective experts (geographers and planners from the Universities of Munich and Trier for Germany, planners and tourism economics experts from Ca' Foscari University of Venice for Italy).

Following the development of the ESDP expressed in the Potsdam document of May, the work was then directed towards the assessment of indicators that were able to depict how "wise" the management of the cultural assets is in a certain region. And actually the issue of how to regionalise the study was one of the most difficult ones, and brought about the drastic reduction of the number of indicators first proposed in Nijmegen by the group, both on landscapes and on built heritage, as well as those proposed by many other working groups.

A further refinement of the choice of indicators was allowed by the inventory of the local situations and of the "feeling" on the proposed indicators by the national experts individuated in each NFP, performed during the summer. It also allowed the definition of a few case studies, to be used to emphasise the local dimension of cultural heritage management.

The Rome meeting happened to be the moment of the"recollection" of the efforts, sometimes also frenzy and chaotic. This could happen not to the least extent because of the close contact and co-operation within the working group, with several informal meetings being held between the "big happening" of the NFP meetings.

During the study programme it was revealed the problem of the lack of data on some issues, that has also been conditioning the efforts of our working group.

Nevertheless, through the support of people like Margaret Hall and Chris Steenmans from the European

Environmental Agency (EEA) and Daniel Rase from Eurostat, the working group on Cultural Assets has managed to prepare a report with the definition, description and mapping of a few indicators that in our opinion may depict quite directly the situation of significance, endangering and management of cultural landscapes and built heritage.

Of course, much more work is still to be done on the topics, but for sure the path has now been opened.

Therefore, the present report is only one of the results of the co-operation in the working group formed by the teams at BBR in Bonn (with the group from the universities of Munich and Trier) and at the DSTN in Rome (with the group from the University of Venice). The new friendships and the strong support that each partner has provided the other with throughout the whole path to this report – a new human-human partnership – are perhaps the major ones.

This final report is organised as follows. The first section explains the theoretical tenets that have oriented this study: the manifold relations that there exist between preservation of the cultural heritage, socio-economic growth and sustainable development are explored, making reference to a brief history of the study and political standings in the field. After this first "philosophical" section, two main sections reflect the subdivision of the issues in the working group: section A concerns the work carried out by the group led by Prof. Dr. Hubert Job on Cultural Landscapes; section B, the one by the group led by Dr. Jan van der Borg on Cultural Cities, Historic and Religious Buildings, Archaeological Sites. For the latter part, the DSTN has carried out the work on data processing and GIS and map production. Finally a second common section proposes policy options partially resulting from the use of indicators, but also taking into account other sources and suggests further investigations to fill in the many gaps shown by the work done.

Section A contains three chapters and an annex with a bibliography and a list of acronyms. Chapter 1 describes the overall framework on the topic containing definitions and history of cultural landscapes, and current research on the European level.

Whereas the first chapter is more theoretical, the second tries to give an overview on the possible operationalization on the complex theme: a categorization of indicators is introduced.

The third chapter presents the results of the different ways of using the indicators, visualised in maps. This chapter is completed by a case study.

Section B contains three chapters, as well. The first one summarises the methodology of the work, as the results of the intermediate discussions held in occasion of the NFP meetings.

In the second chapter, the study is made operational. Four indicators on "significance" and "endangerment" of the European cultural heritage are calculated at the EU-15 level. Maps are produced, based on those indicators, and commented. Also, some relevant insight is provided by the integral reading of the four indicators. The study is completed by the analysis of three highly representative case studies of regions or sites where the problems related with a sustainable use of the heritage are most indicative.

The third chapter summarises and outlines the main results obtained in the work here described. A selected bibliography is also provided.

A second common part resumes the results of both participating groups and proposes political options that have been deduced partly from the work with the indicators but that also take other sources into account.

Finally, proposals for further research are made in order to close the many gaps that evolved in the course of the study. Naturally, many steps remain to be taken, but for sure the first ones are made.

1 Cultural Heritage in Spatial Planning: a Framework of Reference

1.1 Introduction

From its beginning human civilisation is characterised by the social use of the natural potentials for the survival of man. Through the different historical stages until today each use of these potentials expresses a form of a cultural achievement and cultural heritage. The ESDP fosters the wise management of our cultural heritage. It favours the sustainability of the use of the cultural heritage considered on one hand as an important vehicle of diffusion and knowledge of cultural details in a heterogeneous territory like Europe, guaranteeing regional and local identities. On the other hand our cultural heritage may serve as an important opportunity for economic development.

Cultural heritage is considered by ESDP in its two fundamental dimensions: one part being cultural landscapes, the other one being heritage cities, cultural sites and monuments.

Europe takes a global leading position in the diversity of cultural landscapes as well as in the importance of heritage cities, cultural sites and monuments. An indication for this might be the world-wide distribution of ”protected landscapes” (IUCN category V) of which about 60 % are located in Europe. Moreover, UNESCO studies have demonstrated that more than 80 % of built heritage is situated in Europe, of which more than 60 % in Italy alone. The stock and the quality of cultural heritage is sensitive to social and economic transformations. Problems like the uncontrolled urban sprawl, increasing traffic volume, expanding commercial areas and mass tourism may lead to a substantial devaluation of cultural heritage.

Even though official definitions of cultural heritage suggest to adopt the widest notion of heritage, including immaterial elements and other outcomes of human creativity, as a matter of facts, it is very difficult to use such a broad definition. When one wants to quantify the issues regarding the conservation of heritage and study its consequences for spatial planning, a more pragmatic definition is therefore needed.

Another discussion that is going on is about value of the heritage. In the case of cultural landscapes there are doubts whether only outstanding or also ordinary landscapes deserve to be taken care of. The European Landscape Convention, that has been adopted recently, promotes the right of all landscapes being considered.

Until the past few years, a rather opportunistic notion of cultural assets has been adopted, largely identifying cultural heritage with the ”built” heritage, that is heritage cities, cultural sites and monuments. This choice, however, has its advantages. These assets, in fact, are those with the deepest territorial roots. They are neither ”footloose” (like for instance symphony orchestras or exhibition halls) nor reproducible. As a consequence, they are particularly fragile and highly sensible to their mode of use. These aspects turn out to be crucial for spatial planning purposes and therefore for the ESDP programme and its principal objective to enhance the wise utilisation of heritage.

In other words, heritage cities, cultural sites and monuments have to be treated as precious resources for the society and the community, rather than a constraint to social and economic development. Therefore, they require to be used in a balanced way, first of all respecting the degree of complexity of their social and urban fabric and secondly keeping the pressure on them in line with what may be called the optimal use of non-reproducible resources.

Tourism is a very important way to use the cultural heritage. Cultural tourism is by now one of the fastest expanding segments of the tourism market and brings relevant social and economic opportunities as well as serious risks. If not well managed, tourism may have negative externalities, such as pollution and congestion as well as adverse social, economic and cultural impacts on the host community. Heritage cities deserve some special attention because they are in fact huge concentrations of material and immaterial cultural heritage. The appropriate utilisation of cultural heritage is here even more important, as heritage cities are extremely sensitive to the negative consequences of tourism. This is due to the fragile nature of the cultural assets, and to

the potential conflict that there may exist between the use of the resources for tourist purposes and the normal functions a city has to provide for its inhabitants. Therefore, the sustainable use of the cultural heritage, especially in the case of heritage cities, demands an extraordinary planning effort.

The territorial scale of planning is a factor of crucial importance, as mass tourism is an economic phenomenon with inherent spatial features. Therefore, "tourist regions", being either cultural landscapes or areas socially and economically affected by the presence of individual parts like monuments, span different administrative units and can have cross-border characteristics. In most cases, areas benefiting by the presence of the heritage do not correspond with the areas that are bearing the costs that this use implies. Seldom do local administrations or regional governments have the institutional capacity to plan for the sustainable development of tourism in its region of relevance. Planning for a sustainable use of the heritage requires in the first place a better understanding of and more grip on the demand side, but in most cases this has not proved sufficient. More attention should be given to the management of the supply side, and to the environmental conditions that stimulate a desired pattern of visit. The provision of high quality facilities and infrastructure to attentive and sensible visitors who are willing to reward the value of the cultural heritage they have access to, granting the highest possible accessibility to everybody, is the key point of a sustainable tourism strategy.

According to the ESDP, cultural assets shall be developed or be preserved by appropriate methods, partly even be renewed. We need indicators in order to constitute some register for cultural landscapes and for heritage cities, cultural sites and monuments to further develop means of protection, management and planning, as well as to understand the variety and development of human life over time and for the conscious creation of our future.

With the present instruments and concepts the problem of cultural heritage in general can be dealt with only insufficiently. Being an increasingly important object of spatial planning, cultural landscapes and heritage cities, cultural sites and monuments are strongly dependent on the quality of their description. Therefore, the aim of this study is to identify a few synthetic measures that give an indication of the values of cultural heritage and bring to the attention of the policy-makers the main areas of stress on the territory – created by pressure of any kind (natural or anthropic) on cultural landscapes or by the presence of concentrations of built cultural heritage and by an insufficient management of (tourism) demand

Another goal of this research is to indicate a general methodology of data collection and analysis. Hence, an exact inventory is essential for the designation of valuable cultural landscapes and heritage sites as well as endangered areas so that it is possible to provide the appropriate indications for their management

In this section, the tendencies that regard the use of heritage, based on reports prepared by UNESCO, the Council of Europe and the European Commission, are presented. This exposition serves as a methodological and theoretical introduction to the topic under study.

1.2 Issues and Approach

The status of our cultural heritage in our society has always been expressed in rather philosophical and even abstract terms. In this respect – as we shall see later – this somewhat limited vision shows that the functions our heritage has performed have ranged from emphasising its immediate utility as an object of historical and scientific study, including its use as keeper of the collective memory to the function of heritage as a means of stimulating mutual understanding among different races, cultures and countries (see for instance the Conventions of Granada, 1985 and Malta, 1992).

During the Council of Europe Summit, held in Vienna in October 1993, preserving our cultural heritage was rightly mentioned as one of four fundamental preconditions for achieving and consolidating peace and

stability in a new, unified Europe. It is to be hoped that Europe may become a vast area of democratic security – in the spirit of the Vienna Declaration (1993) – provided all its countries are committed to pluralist and parliamentary democracy, the indivisibility and universality of human rights, the rule of law and a common cultural heritage enriched by its diversity. Today, the need for factors that are able to counterbalance the rise of aggressive localism and nationalism in a unified, but increasingly regionalised, and thus fragmented, Europe is felt even more urgently.

It is beyond doubt that this integrating and identifying role of cultural heritage alone fully justifies the efforts that are made to preserve and conserve it, to ensure that future generations may benefit from the stabilising effect our heritage may have. However, the emphasis on ”being there” instead of on ”being used” has sometimes led to a conservative, passive attitude towards heritage conservation. Progress and heritage use, on the one hand, and heritage conservation on the other, are often regarded as incompatible with the conservation of our heritage. Since the European Heritage Year in 1975, gradual changes in this attitude may be observed. A new vision regarding heritage conservation emerged, in which the presence of heritage alone is not sufficient, but heritage itself becomes a major impulse for social and economic progress, progress from which heritage itself benefits. Precious as it is, we should always keep in mind that heritage should be used, but wisely.

The objective of this introductory chapter is to lay a sound basis for an innovative strategy for heritage conservation. A strategy that not only recognises that heritage is – as are democracy, human rights and a respect for laws – a fundamental precondition for peace and stability, but which also reflects the social and economic opportunities heritage offers. Such a strategy should necessarily be integral in that it should consider heritage in all its forms and complexities and it should do so with a proper regard to the environment, and it should be multidisciplinary in that all its aspects should be considered simultaneously.

The following issues are thereby addressed. In section 1.3, it is argued what should be understood by cultural heritage. In section 1.4, the ethical dimension of cultural heritage is looked at. In section 1.5, the social and economic opportunities heritage offers are discussed. Section 1.6 presents the concept of sustainable development and its relevance for heritage conservation. Section 1.7 provides an overview of the political implications the ”wise” use of heritage presents.

1.3 Cultural Heritage

Our cultural heritage manifests itself in a number of ways. It includes the history that is associated with the memories of the past. A much wider range of cultural assets than the ”traditional” ones (buildings or monuments of national or political interest) must be included and people need to be helped to appreciate all aspects of cultural heritage. We must make it clear that it can serve the needs and uses of all our citizens for many different purposes, as it will be discussed later in this document. Heritage may be perceived on various territorial levels (local, regional and national) and in different forms (recognised or not recognised; material or immaterial). We must be aware that our cultural heritage has its greatest impact at a local level.

This approach is not only consistent with the Vienna Declaration which states that this diversity of traditions and culture in Europe is the instrument to combat racism, xenophobia, antisemitism and intolerance, but it removes heritage from the exclusive, elitist sphere to which it is usually consigned and sets it in a more popular, and hence more accessible, context. Closely related to this bid to broaden the definition of heritage is the increased emphasis on what has been called “minority heritage”.

The starting point for a better understanding of what exactly the concept cultural heritage consists of may be found in the Granada Convention promoted by the Council of Europe. The Convention defines cultural heritage as:

- the monuments, groups of buildings and sites as they are described in Article 1 of the Convention for the Protection of the Architectural Heritage of Europe (Council of Europe, Granada 1985):

  (1) monuments: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;

  (2) groups of buildings: homogeneous groups of urban and rural buildings conspicuous for their historical, archaeological, artistic, social or technical interest which are sufficiently coherent to form topographically definable units;

  (3) sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogeneous to be topographically definable and are of conspicuous historical, archaeological, artistic scientific, social or technical interest;
- the elements of archaeological heritage, as they are described in Article 1 of the Convention for the Protection of the Archaeological Heritage of Europe (Council of Europe, Malta, 1992): structures, constructions, groups of buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or on water.

This definition has been enlarged on various occasions to allow for the inclusion of cultural landscapes (more details on this will be shown in section A-1), heritage from the 19th and the 20th century (industrial heritage, movable items, for example) and cultural itineraries. Nevertheless, it still has several serious shortcomings. First of all, in defining what is heritage and what is not, the ethical value cultural heritage possesses is largely absent. Secondly, it underestimates the unique and indelible relationship that exists between cultural heritage and the natural and social environment to which it belongs. Even after the inclusion of cultural landscapes, the definition focuses on the material or physical side and neglects completely the purpose for which it was made (traditions, religions, folklore). In many cases the physical aspects of cultural heritage can only be appreciated fully in relation to its functions

A truly innovative strategy for heritage conservation should necessarily stem from a broad definition of cultural heritage, as it affects whole population. The definition of the Granada Convention needs to be more broadly interpreted.

1.4 The Ethics of Heritage

Heritage should give the European citizens an awareness of their common history and destiny. The cultural diversity in Europe and the cultural richness of different communities' heritage should serve to promote mutual tolerance and understanding. Maintenance of this diversity helps to safeguard Europe's rich and varied culture at a time when landscapes are becoming increasingly uniform and characterless.

An awareness and understanding of the values exemplified by the cultural heritage of the various communities of people in Europe today will make it possible to give a certain prominence to such "universal values" as art, creativity and free expression. At the same time, such values exemplify a type of relationship between man and his environment. They will identify all the more with these shared fundamental values to the extent that the wealth and individuality of these various cultures is secured. In a society in which communication has become dominant, there is a tendency for the particular to become subordinated to the less valuable aspects of the general. Our cultural heritage thus becomes the repository of our very diversity.

It needs to be borne in mind that heritage may sometimes have served as the medium for expressing the very same aggressive regionalism and nationalism which is intended to allay, so that it has become a prey to violence and destruction. Where war

occurs – on whatever scale – or in other types of political and social crisis, the cultural heritage may easily serve as a pretext for violence and destruction. Heritage, when seen simply as a symbol of an adversary's identity or of one's own repression, may touch off aggressiveness even when it is not intended to have that effect. The heritage of minorities is particularly vulnerable in this respect.

Since all heritage, including that of minorities, is part of the human heritage, acts directed against it are directed against humanity in general and must be condemned and punished as such. Hence, it is humanity's concern if heritage falls victim to violence and destruction. Although these considerations may appear to be common sense, we must acknowledge that they have not always prevented such occurrences.

This does not make cultural heritage a less fundamental element for the achievement and consolidation of stability and peace in Europe as well as in the rest of the World. Therefore, it is mankind's moral duty to pass heritage on to future generations.

This implies first of all that the preservation and conservation of the physical side of cultural heritage must have priority. But it also implies an increased attention to its function. The physical integrity of cultural heritage is secured more easily when there is a continuity of function.

In order to make as many citizens as possible share the many opportunities the "passive" and "active" use of heritage seem to offer, the broadest possible access to all manifestations of cultural heritage needs to be secured.

This often raises the question of ownership of heritage. In theory, cultural heritage may be privately or publicly owned. A priori, there is no need to prefer private over public ownership or vice versa. A much more relevant distinction is that between the legal ownership, on one hand, and the emotional ties giving rise to a sense of possession, on the other. Cultural heritage may be the property of a single citizen, yet emotionally belong to the neighbourhood, nation or the entire world. Alternatively, it may be publicly owned, but not appeal to its citizens. In reality, legal and "emotional" ownership may not coincide.

Although access to cultural heritage should be stimulated, use may in the end become excessive, and compromise continuity. The two aspects of the ethics of cultural heritage, that is the moral obligation to conserve and that to guarantee accessibility – are apparently conflicting. Not maximal, but optimal levels of use should be established. Our cultural heritage is usually held to be a public good. And since the demand for zero-priced resources is in principle infinite, some form of regulation is necessary. Caution is a keyword in the ethics of heritage conservation. But sustainable development may be the ultimate answer.

1.5 The Uses of Heritage: Social and Economic Opportunities

It has been repeated various times that cultural heritage is an essential element of the general welfare and the quality of life of Europe's citizens and thus a precondition for stability and peace in Europe. Only recently, the conviction has risen that, if used properly, cultural heritage offers many opportunities for social and economic development. In this section, these opportunities will be listed and briefly discussed. Especially the countries in Central and Eastern Europe, that possess cultural resources that are both unique and as yet not utilised, must try to take advantage of this opportunity.

Social and cultural enrichment

Without doubt, cultural heritage enriches a society both socially and culturally. First of all, it fosters the social and cultural emancipation of its citizens. The relationship between cultural identity and heritage is particularly strong in the case of minority heritage.

Secondly, cultural heritage may, through an increased awareness of the citizens' roots and a strengthened community feeling, be an incentive for social integration. It can counter the on-going process of social exclusion that is threatening the stability of Europe as well as of other parts of the world.

Finally, cultural heritage, and in particular its functional side, may play an active role in urban regeneration processes. In neighbourhoods where inhabitants are aware of cultural riches, the revitalisation and regeneration efforts will be more successful than in neighbourhoods where such an awareness seems to be lacking.

Economic enrichment

In a Europe where unemployment is rising, the generation of jobs must have high priority. The preservation and conservation of cultural heritage in itself may lead to job opportunities. Most restoration activities are very labour-intensive and do not only require, and thus sustain, traditional craftsmanship, but a considerable input of unskilled labour as well. In the case of minority heritage, the skills needed are to be found mostly on the spot. The consequent generation of employment opportunities would seem to follow almost as a matter of course. Moreover, it stimulates intermediary secondary and tertiary activities linked to maintenance and restoration. Striving to achieve continuity of cultural heritage and the creation of job opportunities are positively linked. Furthermore, job opportunities result from the use of heritage itself, that is, in the form of the people required to make and keep heritage accessible**.** Tourism is an important example of how heritage may be used. It may be argued that the labour intensity of cultural heritage increases as its use is rationalised. Since being unemployed and being socially excluded have become virtually synonyms, the creation of job opportunities is also socially beneficial.

The use of cultural heritage generates prosperity which may be redistributed and used to improve the living conditions for members of local, regional and national societies. It may be used to facilitate the conservation and enhancement of cultural heritage, a fact that has gained in importance in an era in which the budgets of the public sector are shrinking. Again, if the use increases, the benefits increase too, and the economic base that is required to maintain cultural heritage gets larger.

Finally, cultural development has a positive effect on matters as the image, the quality of the living environment and the business climate. It has been argued that these factors are increasingly important as determinants of economic growth. Cultural development also indirectly leads to economic development.

These considerations are strengthening the assumption, fundamental for this document, that cultural heritage is not a limitation on social and economic development, but on the contrary a powerful ally. The broadest possible definition of cultural heritage, that was introduced in section 1.3, ensures that no person, whatever her or his age, sex, race and religion, is excluded a priori, and that the social and economic opportunities can be shared by all citizens without discrimination. The social and economic opportunities that heritage offers ought to obtain a central position in the strategy for heritage conservation. Much will also depend on the way in which the impact of the use of cultural heritage is assessed.

1.6 Combining the Ethics and the Opportunities: Introducing Sustainable Development

The elements discussed so far, are a combination of, on the one hand, the ethical aspects, and, on the other, the – current and potential – impacts of heritage. It has already been mentioned that this combination of elements gives rise to an apparent paradox: they are very strong motives to stimulate the use of cultural heritage and equally strong motives to restrict it. To overcome this incompatibility problem, the concept of sustainable development is introduced here.

Several new international conventions regarding heritage respond to the paradox by stating that the “wise use” of heritage ought to be promoted. By “wise use” they understand: use the many opportunities cultural heritage offers, while respecting the ethical aspects of heritage. This approach is perfectly compatible with what is known in the literature as sustainable development.

Sustainable (or durable) development is – literally – the level and/or quality of social

and economic development that can be "supported" by a society, without exhausting not reproducible and irreplaceable resources. In order to render the concept more easily applicable, it has been reformulated in terms of "acceptable" change. Sustainable development then becomes the social and economic progress that gives rise to, for the present and future society, acceptable changes. If these changes are not accepted, development is no longer sustainable. Development ought to be optimal instead of maximal and developers ought to be "wise".

In this context, an immense improvement may be achieved if the societies are aware of the long-term value of heritage, and learn to appreciate those benefits more than the immediate positive social and economic effects of the use and abuse of cultural heritage. If such a perspective is taken as realistic, predetermined quantities and qualities of non-renewable resources – in this case our cultural heritage – will be seen as appropriate.

The society may be local, regional, national or global, depending on the development process. Some impacts are relevant only for a specific neighbourhood, others for the entire world. Problems may arise when change is judged differently by citizens who belong to different societies. Frequently, it emerges that interventions which foster social or economic progress are accepted by the directly interested citizens, but contested by the rest of the world. For example, the application of Venice to host the EXPO 2000 was withdrawn only after a request from the European Parliament. Therefore, the decisions regarding sustainability must be taken at the relevant territorial level.

Another difficulty in handling the concept of sustainability is related to the interpretation of future generations' judgement of change. The tastes and the circumstances may change radically and with them the future value attributed to change.

Furthermore, the change – whether it is acceptable or not – may relate to many different aspects of society: social, economic, cultural or natural, to mention but four of the multitude of dimensions of change. This suggests that any assessment must be made in the relevant context. It calls for a multidisciplinary approach to evaluate the desirability of the variety of changes induced by development and to assess the impact of these changes properly.

Notwithstanding the difficulties which emerge when implementing the concept, the translation of the concept of sustainable development to the conservation and use of cultural heritage leads to several concrete suggestions for the improvement of the strategy of heritage conservation:

- The social and economic opportunities cultural heritage offers can be used freely, unless the change in its physical and/or functional side is unacceptable. Heritage conservation becomes a dynamic process, with the aim of keeping the changes acceptable and not merely to avoid such changes.
- We must revise our views of authenticity. Authenticity is compatible with change, because authenticity derives not merely from the physical structure but also from their intangible associations that make up the cultural heritage. Hence, if changes are society-driven, heritage retains its authenticity.
- The different types of heritage, according to their relevant context, require a precise analysis of the changes incurred by their conservation and use at the corresponding territorial levels and considering the relevant aspects. Although these aspects are interrelated, it is not sufficient to strive for environmental integrity in general in order to ensure heritage's optimal level of use.
- A modern heritage conservation strategy that is based on the multi-dimensional concept of sustainable development necessarily needs to be multidisciplinary.
- The development of society calls for a thorough review of the uses of the built heritage. The fact that a heritage asset has no immediate or short term use is not a sufficient reason for its abandonment. The maintenance of the traditional uses of heritage buildings in keeping with their original purpose, should be generally favoured, such as: residence, worship, covered and open markets, administrative or educational activities (schools, town halls, law courts, etc.) and others. New uses for the heritage, when required, should be carefully planned and should be adapted to the building, and not the other way round.

It is important to see that the objectives of sustainable development are also compatible with those of integrated conservation, as described in the Granada Convention which was drawn up in 1985. Integrated conservation presupposes that:

- the protection of our heritage be included as an essential objective of town and country planning;
- restoration and maintenance programmes be promoted;
- restoration, promotion and enhancement of heritage be included as a major feature of cultural, environmental and planning policies;
- the conservation of buildings which are important in the urban or rural context because of their quality of life aspects be facilitated;
- the application and development of traditional skills and materials be fostered.

Against this background, it may be argued that one may see that integrated conservation is not only compatible but complementary to the sustainable development concept as well. This means that the principles that characterise the implementation of an integrated conservation strategy can be maintained. What needs to be added to the strategy of integrated conservation is a major attention to the social and economic opportunities that cultural heritage offers.

1.7 The "Wise Use" of Heritage: the Political Challenge

In the previous sections some of the elements of an innovative strategy for heritage conservation were presented. This strategy not only recognises that cultural heritage is – in common with democracy, human rights and a respect for laws – a fundamental element for peace and stability but also takes into account the social and economic opportunities heritage offers. Such a strategy should be integral, considering heritage in all its forms and complexities while remaining consistent with respect for the environment, and multidisciplinary, that is considering all dimensions simultaneously. The concept of sustainable development, that is striving for that pace of social and economic progress that does not endanger the integrity of non-renewable resources such as heritage, takes a central place in such a strategy. Moreover, this new strategy for heritage conservation ought to depart from as inclusive as possible a definition of cultural heritage. Such a definition should include different types of heritage: recognised and unrecognised, minority or common, local or international, material and immaterial.

Several specific aspects, regarding the political challenges to achieve the goals set in the strategy, need some further discussion:

- It has already been said that the cultural heritage conservation strategy needs to be integral and multidisciplinary. This means the desirability of experts from very different disciplines being involved in heritage conservation projects. Conservation teams must contain all relevant competencies and be well co-ordinated. And since heritage can be seen as a transversal interest, especially when the suggestion to accept the social and economic challenges is followed, departments and ministries which deal with heritage on their own, may now be called upon to enter in close co-operation with other departments or ministries that, with their policy, touch cultural heritage indirectly.
- Since the territorial levels at which issues of sustainability need to be raised may vary, it is important to ensure that the corresponding levels of administration and their responsibilities towards the conservation and enhancement of cultural heritage are clearly understood. Again, co-ordination and collaboration are important keywords.
- The importance of the neighbourhood level to monitor progress and to correct malfunctions of our society has frequently been emphasised. This implicitly stresses the importance of minority heritage, as has been discussed previously. Minority heritage in particular requires the involvement of local expertise, in order to respond sensitively to the emotional attachments

of those that live there. Cultural conservation and valorisation programmes that concern minority heritage should come from the grass roots rather than be imposed from above. Only by actively involving local experts in the continuous evaluation processes necessary to protect minority heritage and by stimulating local commitment will those programmes become effective.

- Although the local level will play an increasingly important role in the formulation of heritage conservation strategies, international organisations such as the Council of Europe, UNESCO and the European Union have played and should play an important role as initiators of conservation programmes and at the same time as "guardians" of the general, non-local interest in cultural heritage. Such interests should not replace the local or, indeed, the regional and national interest, but they should interact. Optimal solutions regarding cultural heritage protection are found only if the decision process reflects the different relevant territorial levels and dimensions of the conservation problem. Co-operation and co-ordination between the different local, regional and national authorities and the international organisations is therefore essential.
- Furthermore, a complete listing and an evaluation of the different cultural heritage programmes of the Council of Europe, UNESCO and the European Union is urgently needed. The programmes may be complementary but in some cases they may overlap. In the first case, the programmes may yield a gain in financial or in efficiency terms when put together. In the latter, such overlapping may be avoided by mutual consultation. It is, therefore, important that governments and other institutions draw the attention of the relevant organisations to cases of conflict as soon as they are perceived, as well as to cases where economies of scale or added value may result from restructuring to take advantage of complementarity.
- The involvement of, and co-operation and collaboration with non-governmental organisations, such as consumer organisations, environmental organisations, touring clubs, should be fostered. These bodies increasingly fill up the vacuum that is left by national and local governments and represent the interests that reflect and affect the lives of the general public and may become very important vehicles to shape public opinion and raise the awareness for the role cultural heritage plays and to increase the citizens' sensitivity to their own cultural heritage and to that belonging to other societies. NGOs have a wider role than raising public awareness and sensitivity. They have become involved to an increasing extent in conservation programmes. They thus become fully recognised partners in such programmes, providing both financial means as well as know-how. This recent development is not only to be noted but very much welcomed. Governments and institutional bodies need to consider how to integrate the role of NGOs with their own policy priorities. Therefore, in addition to that of the activities of international organisations that was proposed previously, an inventory of the potential and actual activities of NGOs in the field of heritage conservation is of the utmost importance.
- National or international professional bodies might be invited to consider drawing up ethical codes for their professions or trades.
- The increased involvement of non-governmental organisations, more co-operation and co-operation among the Council of Europe, UNESCO, the Commission of the European Union, and the increased awareness of citizens themselves, combined with a more active approach to cultural heritage conservation, opens up new perspective to the design of public-private or cross-financial schemes.
- More adequate European policies regarding cultural heritage require first of all a better understanding of the supply and the demand for culture. Existing statistics are rather poor and scarcely comparable. This part of the Study Programme on ESDP is but a first step in the direction towards an Europe-wide decision support system that enables to achieve a wiser use of cultural heritage through spatial planning.

A-1 Introduction

A-1.1 Examples for Definitions of "Cultural Landscape"

A-1.1.1 General Remarks

In his publication on the history of the word "landscape", Müller (1977:4 ff.) discusses the connection with the ancient Germanic verb "scapjan", which means: to work, to be busy, to do something creative. These verbs still occur today, e.g. in German: "Landschaft" containing the verb "schaffen" (to do or to create something), or in English: "landscape" containing the verb "to shape" (to form or to design something). Haber (1995:38) brings up the issue of these verbs implicating processes, changes, dynamics or an evolution that are initiated by either natural agents or forces (resulting in a "natural landscape") or by humans (resulting in a "cultural landscape").

Landscape can be imagined as consisting of different layers, one being natural and the other one cultural (see figure A-1). The natural landscape is the original landscape untouched by man, while the cultural landscape can be seen as a derivative natural landscape whose balance, structure and view is more or less influenced by human use. According to the intensity of human impact and transformation cultural landscapes can be further divided.

The following definitions derive from several institutions involved in cultural landscape protection and management. Their approaches are further described in chapter A-1.3.

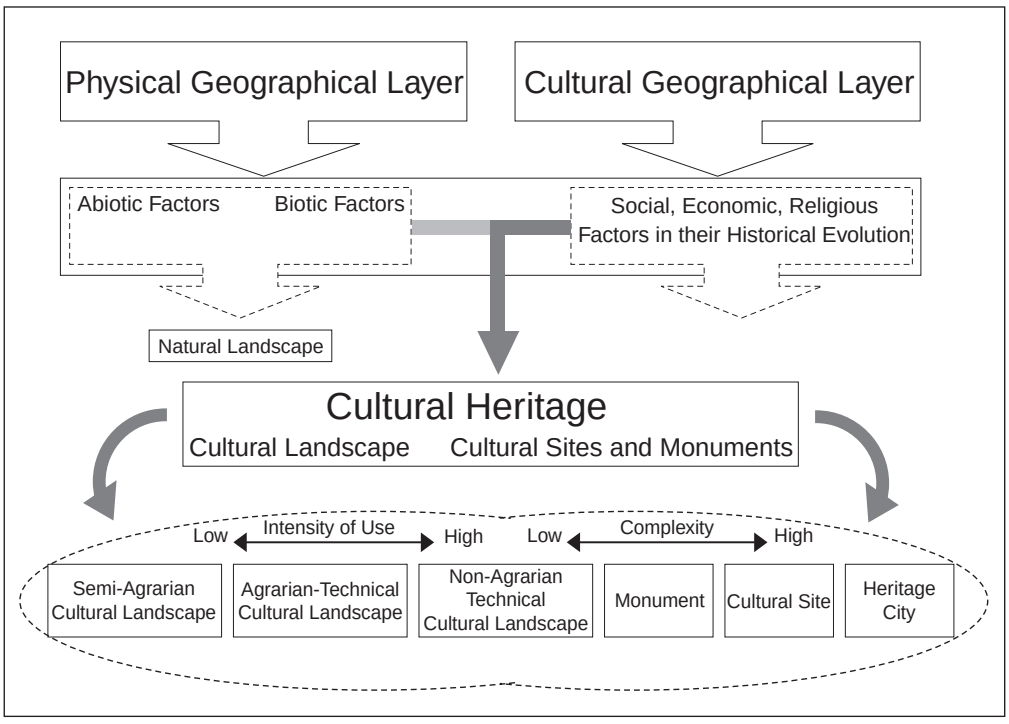


Figure A-1 Structure of the cultural heritage

A-1.1.2 UNESCO World Heritage Convention

1. "The most easily identifiable is the clearly defined landscape *designed* and created intentionally by man. This embraces *garden and parkland landscapes* constructed for aesthetic reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.
2. The second category is the 'organically evolved landscape'. This results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features. They fall into two sub-categories:
   - a 'relict' (or 'fossil') is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form,
   - a 'continuing landscape' is one which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time it exhibits significant material evidence of its evolution over time.
3. The third category is the 'associative cultural landscape'. The inclusion of such landscapes on the World Heritage List is justifiable by virtue of the 'powerful religious, artistic or cultural associations' of the natural element rather than material cultural evidence, which may be insignificant or even absent." (UNESCO 1995:11f.).

A-1.1.3 Mediterranean Landscape Charter (1993)

Landscape is

"(...) the tangible expression of the spatial and temporal relation between individuals and societies and their physical environment, shaped to varying degrees by social, economic and cultural factors. The landscape is therefore the result of a combination of natural, cultural, historic, functional and visual elements" (cf. BENNETT 1996:108).

A-1.1.4 Congress of Local and Regional Authorities of Europe (1995)

Cultural landscape areas are

"(...) specific topographically delimited parts of the landscape, formed by various combinations of human and natural agencies, which illustrate the evolution of human society, its settlement and character in time and space and which have acquired socially and culturally recognised values at various territorial levels, because of the presence of physical remains reflecting past and present land use and activities, skills or distinctive traditions, or depiction in literary and artistic works, or the fact that historic events took place there" (CE & CLRAE 1998).

A-1.1.5 Ministry of Environment´s Environment Terminology Commission, France (1993)

Cultural landscapes are

"(...) landscapes shaped by man and considered as having an intrinsic value" (cf. BENNETT 1996:11).

A-1.1.6 Countryside Commission, Great Britain (1994)

A historic landscape is

"(...) the physical manifestation of social relationships between people in the past and of their interaction through time with the environment and the natural world; it is recognisable through archaeology and historic landscape features, which allows history and character to be read in the landscape, but issues of perception and association are also important" (cf. BENNETT 1996:63).

A-1.2 Evolution of Cultural Landscapes in Europe

As early as 10,000 years ago, man influences his environment in different parts of the world, although at that time only fire and hunting weapons are at his disposal for carrying out that influence. (Bush) fire and hunting have crucial effects on flora and fauna, but these influences are not severe enough to create what we call "cultural landscape" today. Emanuelsson (1988:113) illustrates the impact of hunter-gatherer societies as "similar to that produced by other big omnivores".

Norton (1989:4) refers to the "pre-human landscape", that in a time line occurs before the historic landscapes, which are followed by contemporary landscapes and finally the future landscape. The pre-human landscape is what other authors would call a "natural landscape" in opposition to a "cultural landscape".

In Europe, the roots of today's cultural landscapes date back to about 6,000 years ago (Plachter 1996:2). At that time, "shifting cultivation" is introduced as some sort of primitive form of agricultural land use. Still, these impacts are restricted in space and time, so that no durable cultural landscapes are created.

With the transformation to the neolithic era, which is marked by the start of a productive way of life, tillage and animal husbandry are introduced and man becomes settled. Subsequently, (clear-) cutting of forests and alterations of the vegetation layer come about.

The decisive phase for the genesis of the central European cultural landscape is the Middle Ages. Although type and intensity of land use should change frequently in the following centuries, at that time the coarse structure of today's cultural landscapes is designed. Population growth leads to a complete alteration of landscapes, starting in the old settlement regions, then continuing into the less favoured regions in the highlands and the subalpine zone. Steinlin (1989:7) describes, how the forest area decreases vitally through burning and intense grazing, that forests transform to farmland, grasslands or pasture and how subsequently the vegetation becomes more diverse. Whereas about 2,000 years ago more than 90 % of the central European territory are forests, the forest area goes down to 30 % by the beginning of the 13th century as a consequence of clear-cutting (Plachter 1996:3). Pregill & Volkman (1993:163) present similar figures.

But man's force of alternating the landscape is still restricted to the changing agents like fire, axe, plough, draught animals (Steinlin 1989:7). Although terraces are built where conditions allow to do so easily and on a small scale or where necessary for more effective agricultural production, generally the small-scale structure of the relief is kept (cf. e.g. Job 1999:81, 131).

Endurance and the velocity rate of draught animals determine the rough structure of the landscape through the time spent for reaching the fields.

The desire to spread the risk, communal obligation under common field cultivation, three-course rotation and later on inheritance by equal division also contribute to the small-scale mosaic of land use.

The agricultural landscape is thus much more diverse and more structured than the original natural landscape, bringing about an increasing diversification of flora and fauna as well. Plachter (1996:4) refers to a "maximum level of biodiversity in the 18th and 19th century". Land use is adapted to the conditions of the location. The landscape ecosystem is characterised by closed cycles and is utilised in a sustainable way, which according to Steinlin (1989:9) is an extraordinary cultural achievement by central European farmers. The evolution of landscapes occurs still slowly and is hardly recognised.

With the beginning of industrialisation in the 19th century new cultural landscapes evolve through mining. After several centuries of destruction of forests, clear-cutting is stopped by the conversion from wood energy to fossil energies (e.g. by the use of hard coal) (Küster 1999:294).

The extension of train networks by the end or the 19th century brings about changes in regional commercial relationships, the increase of means of individual transport lead to a further change in land use (Dvl 1996:27). The spread of new cultural plant species is supported. Becker (1998:29) distinguishes this diffusion under the aspects of origin of the species and type of transmission: through migration, without migration or planned use of cultural plants from other regions as result of economic

or political decisions. Especially the transmission without migration is usually a consequence of the diffusion of innovation.

The tendency is, that nature is more and more adapted to the human demands of certain ways and objectives of production.

These economically induced innovations lead to developments in agriculture, that in turn have consequences on the cultural landscape. Examples listed by Denecke (1990:203 f.) include increase in parcel size, homogenisation of the relief, large-scale clearing of landscapes, new construction styles which are adapted to new functions and the unification of vegetation, the latter one implying the loss of habitats and biodiversity. External conditions lead to the attitude of efficiently working farmers, that traditional elements of landscape have to be sacrificed, so that small scale landscape elements like stone walls, hedges and so on disappear (Kommission der Europäischen Gemeinschaften 1999:18). It is the desire to boost agricultural productivity, which is the main driving force for a process of increasing uniformity in the agricultural landscape (Mhppe 1989:5).

Emanuelsson (1988:111 ff.) designed a model for describing the development of the cultural landscape, in which he distinguishes five technological levels by relating human exploitation of the landscape to population size and soil nutrient utilisation:

- hunter-gatherer economy,
- slash-and-burn agriculture and pastoralism,
- the use of permanent manured fields,
- more efficient use of permanent manured fields,
- dependence on artificial fertilisers.

Job (1999:26) gives a comparative overview over the development of land use systems and landscape transformation in central Europe, taking into account as well characteristics of land use, diversity of habitats, flora and fauna and diversity and uniqueness of the visual landscape. He distinguishes four revolutions in agriculture (Job 1999:25ff), that are characterised as follows:

- transformation from hunting/gathering societies to tillage and animal husbandry,
- transformation from rotation with grass period to three-course rotation and later on rotation of crops with non-organic fertilizer application as well melioration measures (e.g. drainage of swamps and peat moors),
- political and economic instruments, like e.g. subventions,
- sustainable agriculture.

But often in such models only the agrarian component of landscape is included, while subsequent urbanisation or settlement structures are not taken into account. During the last century, landscapes reflect increasingly the attitude and demands of an industrial era (Dvl 1996:27). Thus, Toffler (1980) gives a less detailed, but also further reaching (in terms of the covered timespan) overview in distinguishing three phases in general human development:

- agrarian revolution,
- industrial revolution, and
- information revolution.

Most authors focus on agriculture or rural areas when dealing with landscapes (e.g. Emanuelsson 1998 as described above; cf. also Ieep 1995; Ieep & Lei-Dlo 1996; Bethe 1997; Aalen, Whelan & Stout 1997; Poudevigne et al. 1997 and many others). This might be partly due to the fact, that a great part of European territory is used for agriculture – for the EU, the rate of agriculture in land use is 51 % (Kommission der Europäischen Gemeinschaften 1999:18). Little is said about the influence of the industrial revolution on landscapes, and even less about impacts of the information revolution. But it also has to be stated, that industrial landscapes have for a long time – and still are – not been recognised as part of the cultural landscapes.

A-1.3 Current Cultural Landscape Research and Action in Europe

At present, there are several initiatives occupied with cultural landscape approaches on the European or international level (see table A-1, page 32). Meeus' approach (1995) and the corresponding chapter of Stanners & Bourdeau's (1995) 'Europe's Environment – the Dobříš Assessment' will be treated in more detail below (cf. chapter A-2.4).

Within the scope of the "Pan-European Biological and Landscape Diversity Strategy" (PEBLDS), "cultural landscapes" have been selected as one of the action themes. The objectives are to prevent further degradation of landscapes and the heritage they represent, to preserve their beauty and identity, to develop an integrated vision of landscapes and to raise awareness among the public and policy-makers to ensure that landscapes are more effectively protected (Goriup 1998, Ecnc 1997, 1998).

The Council of Europe has for long promoted activities in the field of landscapes. For over 30 years, the "European Diploma" has been making an effective contribution to the conservation of outstanding European landscapes, although 50 sites awarded a diploma are not that much when compared with Europe's vast territory. Whereas the policies used to be originally very strict and static, the approach today is dynamic. In 2000, one authority and one NGO will be awarded the "Council of Europe Landscape Award" for having taken initiatives for the conservation, management and/or development of their cultural landscapes.

The "Draft European Landscape Convention" has been developed in co-operation with the Conference of Local and Regional Authorities of Europe (Council of Europe & Clrae 1998). Its objective is to serve as a framework convention on the management and protection of the natural and cultural landscape of Europe as a whole. Recommendation 95 (9) of the Council of Europe sets out principles for cultural landscape area conservation and managed evolution within the context of general landscape policy.

As approaches, that go beyond the European level, UNESCO's "World Heritage Convention" (WHC) and "Man and Biosphere Programme" (MAB) and the IUCN seem worth being introduced.

Since 1993, cultural landscapes are included on the UNESCO World Heritage List as part of the cultural heritage of "outstanding universal value". EU-wide, there are 12 cultural landscapes on the List , e.g. Portugal's "Cultural Landscape of Sintra" or the "Hallstatt-Dachstein Salzkammergut Cultural Landscape" in Austria (UNESCO 2000) .

The UNESCO "Man and Biosphere Programme" recognizes areas, that meet a minimal set of criteria and adhere to a minimal set of conditions before being admitted to the network. Each biosphere reserve is intended to fulfil three complementary functions: a conservation function (among others the conservation of landscapes), a development function (to foster sustainable economic and human development), and a logistic support function. A permanent monitoring system is to be developed, too.

The IUCN has established an internationally valuable classification system for protected areas. Two types (category III: Natural Monument and category V: Protected Landscape/Seascape) correspond in particular intentions to set up a supranational commission with the purpose to identify a "red list" of cultural landscapes that are worth being protected and find relevant means of protection (IUCN 1994). Already in 1978, the IUCN published a report on "Some outstanding landscapes", in which European countries identify landscapes that are worth being protected. Only the countries of former Czechoslovakia, Denmark, Germany, Greece, Ireland, the Netherlands, Spain, Sweden and Yugoslavia are represented. All together 40 proposals are made.

Table A-1
European approaches referring to cultural landscapes

	ESDP / ESPON	Dobříš Assessment	PEBLDS	Council of Europe – Draft European Landscape Convention	Council of Europe – Landscape Award	Council of Europe – European Diploma	Council of Europe – Recom-mendation (95) 9	IUCN	UNESCO – Man and Biosphere	UNESCO – World Heritage Convention
Spatial level	EU territory (15 EU Member States)	Europe	Europe	Council of Europe member states	Council of Europe member states	Council of Europe member states	Council of Europe member states	global	global	global
Purpose / framework / intention	recommen-dations for spatial planning	information for protection of environment	reduce threats and increase resilience of biological and landscape diversity	political / legal frame-work (“filling a legal vacuum”)	award aimed at authorities and NGOs for having taken initia-tives for landscapes	award aimed at a certain territory (”zone”)	sets princi-ples for cul-tural land-scape area conservation and land-scape policies	protected areas	protection and sus-tainable manage-ment; monitoring system	protection of heritage of ”out-standing universal value”
Approach / procedure	cultural assets with cultural land-scapes as sub-theme; indicators for spatial differentiation	Meeus: scientific approach, typology	11 action themes, one of them on conservation o landscapes; different projects and actions	multidisciplini-nary ap-proach; participation of local communities	one award is granted to an authority and one to an NGO	diploma is awarded to certain zones for five years	multi-disciplinary approach; participation of local commu-nities	classifica-tion system for protec-ted areas and man-agement objectives, red list for valuable landscapes	three func-tions of the reserves: conservation, develoment, logistic.	classification according to natural, cultural and mixed sites (n, c, m)
Territorial context / landscape definition / value discussion	complete territory	complete territory	pan-Euro-pean; but criteria for important landscapes	whole territory (outstanding and ordinary landscapes)	does not apply	zones of international value and of particular European interest (natural and seminatural)		designated protected areas are selected and classified	selected area	only landscapes of outstanding universal value that fulfil defined criteria
In existence since	in progress	Dobříš As-sessment dating from 1995, based on Meeus 1990	adopted in 1995	1993 “Carta del paisaje mediterranéo”, in process, to be adopted in 2000	application phase in process, awards granted in 2000	institutiona-lised in 1965		IUCN foun-ded in 1948	MAB since 1970, Bio-sphere Reserve Network launched 1976	Convention 1972; cultural landscapes on list since 1992
Time frame	Study Programme as ”prestudy” for ESPON		20 years	should be dynamic and flexible	only once?	5 years each zone, renewable		not limited	not limited	not limited
Size of landscape	not mentioned	> 100 km²	does not apply	not mentioned	does not apply	not mentioned	not mentioned	only areas > 1000 ha in UN list published by WCMC	zoning	”substantial enough”
Typology / indicators	two groups of complex indicators (“significance and endan-gering”)	8 (distinctive) types, 30 (sub-)types	no typology	not mentioned	does not apply	3 categories according to objectives: (protection of wildlife, of landscape character and of a quality environment)		6 categories of protected areas, two of them taking into account cultural landscapes	biosphere reserves as only type regarded	intentionally designed, organically evolved (relict and continuing) and associative cultural landscapes
Dimension / extent	12 EU member states involved	often cited approach	54 states involved in implemen-tation		only once	50 sites			1999: 357 biosphere reserves, thereof 137 in Europe	1999: 630 properties (480 c, 128 n, 22 m)
Integration / co-oper-ation with other ap-proaches		forms basis for many approaches	support of “Convention on Biological Diversity“	referring to other regarded approaches				UNESCO, WCMC	IUCN	IUCN, ICOMOS, ICCROM

A-2 Choice of Indicators

A-2.1 Theoretical Background

To start with, the most crucial information concerning cultural landscapes shall be provided: functions of cultural landscapes, arguments for cultural landscape protection and preservation as well as factors that threat cultural landscapes.

Landscape potentials can be subdiveded into

- abiotic (use of ressources),
- biotic (biodiversity) and
- social (recreation).

The potentials generally overlap in space and express themselves in functions that have been attributed to them by their inhabitants. The functions in turn determine the character of a landscape and characterise it in its spatial expressions:

- spatial (e.g. coppice),
- linear (e.g. dance tree) or
- punctual (e.g. court tree).

Naturally, quantity (frequency of element) and quality (age, parameter-value) play an important role as well.

The most frequent functions are:

- agriculture, forestry, specialised crops (field terrace),
- industry, trade (stone quarry),
- traffic, supply/disposal, communication (canal),
- settlement (round village),
- military, self defense (entrenchment),
- religion (field cross),
- leisure, recreation (dance tree)
- others (boundary stone).

The following arguments to preserve cultural landscapes have to be mentioned:

- They hint at the relationship between man and nature in former generations and are concrete examples for the culture and history of former lives and of the former human environment.
- They give proof of each treatment of nature and landscape and show the former scientific and technical state.
- With the appropriate persistence they are components of the present natural habitat and of the one of future generations.
- They are essential for the personal development of an individual and offer regional identification possibilities.
- They are a vivid example for environmental education and a sort of conceivable local history. The knowledge about our spatial context influences seeing and judging, our sensibility for apparently natural things. It also influences our attitude towards nature and landscape, our behaviour, our planning and political decisions.
- Dealing with historical cultural landscapes can also show how men should treat living things – according to natural laws – how ecology, economy and social affairs can be balanced according to a sustainable development.
- Diverse cultutal landscapes are important retreat areas for a large number of endangered animals and plants in a generally uniform landscape.
- They enrich rural areas with regard to aesthetics and experiences so that they become attractive for tourism.
- They contribute to the attractiveness of areas and thus – as soft locational factors – also to a better economic situation in the respective area.

Changes can have endangering and sometimes even destructive impacts on cultural landscape elements. The most important dangers for the traditional “historical cultural landscape“ (since 1840 within different functional areas owing to technical attainments) are the following:

- increasingly large-scale extraction of raw material (hard and brown coal, sand and gravel),
- construction of dams,
- land consolidation, agricultural modernisation and intensification (empty landscapes), growing use of pesticides, chemical fertilizers and liquid manure (eutrophication), restructuring of grassland into tillage land (especially in meadow areas),
- emissions (“new damages to forests“),
- afforestations of monocultures of spruces, pines or hybrid poplars on waste land and former deciduous forest areas,
- standardization of buildings by using industrial, standardised, non-local building forms and materials,

- strong agglomeration tendencies in the periphery of cities and villages (new building and commercial areas) and increasing area covering,
- impairment of the landscape view (visual horizon) by wind power stations and high tension lines,
- impacts of road and railway construction (landscape dissection),
- straightening, bordering and piping of watercourses and
- impacts of mass tourism.

Structural changes in agriculture on global scale with diverse regional effects are considered to be a main threat to traditional cultural landscapes, not only through more intensive agriculture but also owing to abandonment, resulting in an extension of fallow land and afforestation – above all in peripheral rural areas.

A-2.2 Methodology

Mission of the German part of the working group on cultural assets was to find indicators (described in chapters A-2.3 and A-3.1) for a spatial differentiation of cultural landscapes within the EU territory, to come up with a landscape typology (cf. chapters A-2.4 and 2.2) and to illustrate the findings by introducing relevant case studies (cf. chapter A-3.4).

Starting point for the work on the spatial differentiation of cultural landscapes is to make use of indicators. Generally, two kinds of indicators are distinguished:

- Significance: All the intrinsic properties of single cultural elements and of their context, as well as objects, activities and facilities that make it considerable and culturally significant. This type of indicator represents the history and the actual state of the cultural landscape.
- Endangerment: All those conditions and activities, as well as objects and facilities whose existence, absence or inadequacy determine a condition of imbalance leading to situations of degradation. This type of indicators refers mainly to probable future development of the cultural landscape.

The search of relevant and suitable indicators on cultural landscapes for spatial planning purposes is guided by two requirements:

- Data availability should be high on a European level for being able to get results in a rather short time.
- The indicators should represent the (locally or regionally determined) characteristics of cultural landscapes.

It proved to be hard to find indicators, that fulfil both requirements, since these are somehow in opposition one to the other. In the choice of indicators (cf. chapter A-2.3), the attempt is made not to favour one of these requirements, but to respect them both.

For describing cultural landscapes, principally two approaches are possible: the first is a direct assessment by interpreting remote sensing data which describe primarily the physiognomic appearance of the cultural landscape; the other possibility is a more indirect way, as it uses statistical data which are usually collected within administrative borders. According to the two possibilities – indirect and direct assessment - for elaborating the topic, two data sources that go beyond the national scope were used in this project. On one hand the REGIO database of EUROSTAT and on the other the remote sensing data derived from the CORINE Land Cover database.

To fill the indicators with data, the working group followed different strategies:

1. A questionnaire was sent to all National Focal Points (NFPs) in order to obtain an appraisal on suggested indicators on the one hand and an idea about the availability of data on national or EU level on the other hand (long-term strategy).
2. As the most of the contributors, the working group on cultural assets too, decided to make an attempt by using the EUROSTAT database (in particular figures delivered by REGIO). This attempt follows the indirect way, but can be considered as a short-term strategy if compared with the questionnaire approach.

Besides, the questionnaire delivered information about the actual state on cultural landscape research in the respective EU member states and on case studies that are carried out. The answers of the National Focal Points are summarised in chapter A-3.1.

A-2.3 Indicators for Cultural Landscapes

Indicators, that reflect the relationship between local people and the landscape that is shaped through their daily work, help to carry out the spatial differentiation of the territory and to identify and analyse types and sub-types of landscapes. Besides, the dynamics within landscape development can be observed to enable the establishment of a framework for political action. Thus, reflecting significance and endangering of cultural landscapes, a set of indicators should serve two general purposes (one indicator can serve both purposes):

- Indication of the actual state of the cultural landscapes.
- Indication of the future development of the cultural landscapes – including land use pressure by human activities, requiring more (or less) space and more (or less) intensive use of space.

To define valuable and therefore relevant cultural landscapes, indicators can not be used separately. The application should rather be in form of combined thematic clusters of indicators in order to identify and evaluate the cultural landscapes (aggregated indicators). To be able to overlook the collected indicators easily, in this study five categories (in a very ambitious first attempt comprising altogether 40 indicators, table A-2) have been identified:

- Category I:
  Physical geographical features
- Category II:
  Cultural Geographical respectively economic functional features
- Category III:
  Agricultural features
- Category IV:
  Special legislation instruments
- Category V:
  Cultural significance values

In category I, the main natural potentials of cultural landscapes are represented. With their help, a delimitation of geographical main landscape types may be achieved.

In category II, the anthropical influence is regarded in general. These influences can partly be considered as endangerment indicators. Furthermore, economic functional indicators were chosen to be able to represent trade and traffic, industrial, mining and urban cultural landscapes.

Due to its special importance because of the EU-wide spatial dominance for cultural landscapes, category III is exclusively dedicated to agricultural and forestry features. According to the shaping of the indicators mentioned there, two different ways of development of agriculture and forestry will have to be distinguished: intensification and extensification. Thus indicators of this category are also partly representing the degree of endangerment.

Category IV shows the relevant international and national legislation instruments. Here only the juridical instruments have been considered, whereas the voluntary ones (e.g. agreements on landscape management) are dealt with in the latter category. It is worth mentioning in this context, that many forms of designation that are applied on cultural landscapes do not carry much formal obligation to ensure protection, such as *heritage coasts* in Great Britain or *Landschaftsschutzgebiete* in Germany.

Finally, in category V, the so-called “cultural significance values” are regarded, that means, the elements and their spatial relationship that characterise a particular cultural landscape. Here, a distinction should be made between “cultural landscape types” and “cultural landscape individuals”. For example, cultural landscapes dominated by viticulture may have different shapings with individuals like the Mosel Valley (Germany), Champagne (France) or Southern Tyrol (Italy), which are in their context of historic development, structure (e.g. with or without terraces) and combination of characteristic cultural goods and elements as well as in their physiognomic appearance (landscape view) quite different. Indicators of the category V represent mainly the “significance degree”. Figures like the length of hedges and the state of dry stone walls which would be necessary to assess the bocage landscapes or the density and size of terraces could help to characterise and estimate the cultural value of cultural landscapes characterised by wine growing, are not available or comparable on the European level.

Each indicator is regarded under the aspects of: type of measuring instrument and range of measuring, objective or purpose of the indicator, availability of data and data sources and the territorial unit/ scale (cf. table A-2).

Table A-2
Tentative list of indicators for a delimitation of relevant cultural landscapes needing protection on the EU level

Category I: Physical geographical features					
Number	**Indicator**	**Type of measuring instrument and range of measuring**	**Objective / purpose**	**Availability of data and data sources**	**Territorial unit/scale**
I.1	Landform	Topography and evevation (relief); digital terrain model	Description of main geographical regions and landscape types	Available	1: 500,000–1:1,000,000
I.2	Ecosystem	Habitat classification/potential natural vegetation types	Recognition of different biotopes and habitats (biodiversity)	CORINE land resource data base, CORINE classification, Federal Office for Nature Conservation (Bonn)	1:100,000 – 1: 250,000
I.3	Soil quality	Soil fertility (soil climate index) and risk of erosion (soil loss)	Aptitude for agricultural production	FAO/Ispra/RPD, CORINE soil erosion risk data base, Wageningen University and Research Centre	1:1,000,000
I.4	Climate	Air temperature, precipitation	Differentiation of climatic zones	Available	1:1,000,000

Category II: Cultural geographical respectively economic functional features					
Number	**Indicator**	**Type of measuring instrument and range of measuring**	**Objective / purpose**	**Availability of data and data sources**	**Territorial unit/scale**
II.1	Population density	Change of number of inhabitants for different categories (total land, arable land, forest/wood-land etc.)	Population growth and distribution	EUROSTAT	
II.2	Land use in general	Percentage and type of artificial surfaces, agricultural and forest areas, wetlands and water bodies	Ascertain changes in the type of land use (intensity of anthropogeneous overlay); shows mono-/multifunctionality	CORINE Land Cover	1:100,000 – 1: 250,000
II.3	Land prices	Prices in ECU	Value of land indicates the pressure on land	LEI data	
II.4	Gross Domestic Product (GDP)	Amount and growth rate of the GDP representing the regional development status; share of agricultural sector; share of industrial sector	Shows the regional income differences per inhabitant	EUROSTAT (REGIO)	
II.5	Employment	Number of employees in the different sectors; share of agricultural sector; share of industrial sector	Shows the regional differences of the agricultural labour force	EUROSTAT	
II.6	Location	Distance to population centres and major infrastructure (highways etc.)	Geographical position within easy reach or not	EUROSTAT	
II.7	Fragmentation	Densitiy of the communication network (linear infrastructure like streets, railways, high tension lines etc.)	Recognition of large-scale landscape parts / split up of habitats and experience environments	Available for Germany	
II.8	Urban fabric	Settlement structure (size, functional components and spatial distribution of cities and villages)	To characterize different types of urban landscapes		
II.9	Urban sprawl	Spatial growth of cities and historic development of the extension of agglomerations	Landscape consumption for settlement and commercial areas	CORINE Land Cover, EUROSTAT	
II.10	Manufacturing / mining activities	Number and location of industrial and mining enterprises and their production capacity (earnings and output in former and present time)/share of derelict land	To determine continuing or fossil industrial and mining areas		

Table A-2 (continued)

Category III: Agricultural features					
Number	**Indicator**	**Type of measuring instrument and range of measuring**	**Objective / purpose**	**Availability of data and data sources**	**Territorial unit/scale**
III.1	Utilized Agricultural Area (UAA)	Size/share of cultivated areas (in opposition to non-cultivated ones) and changes over time	Shows regional and temporal differences in importance of agriculture (so that tendencies for the future can be estimated)	EUROSTAT (FSS)	
III.2	Agricultural land use types	Size/share/location and changes of types of land use, e.g. arable land, permanent meadows/pasture, special cultures (horticulture), forest/ woodland; fallow land; share of less favoured areas of the UAA	Shows regional differences in the types of agriculture; reflects partly the occurrence of marginalisation	CORINE Land Cover, EUROSTAT (FSS)	
III.3	Agricultural land use intensity	Livestock density, dairy production horticultural production, share of permanent culture (e.g. vineyards); management intensity: irrigation drainage, fallow periods	Reflects intensity of farming and partly the occurrence of marginalization and environmentally sensitive production	EUROSTAT (FSS)	
III.4	Number and size of farms	Regional and sectoral (e.g. horticulture, stock farming etc.); number of farms which produce organically	Reflects intensity of farming and partly the occurrence of marginalization and environ-mentally sensitive production	EUROSTAT	
III.5	Structure of farms	Standard gross margin per ha of UAA; employees per ha; age of farm holders	Reflects intensity of farming and partly the occurrence of marginalization	EUROSTAT (FSS)	
III.6	Farm income	Family farm income per family work unit and share of direct subsidies in the income	Reflects partly the occurrence of marginalization	FADN	
III.7	Agrochemical input	Amount of fertilizers and pesticides applied	Reflects intensity of farming and environmental threat	EEA	
III.8	Commercial afforestation	Large scale monocultural commercial afforestation rate	Enclosure of landscape resulting in larger uniformity and decline in aesthetic value and landscape experience as well as bio-diversity	EEA	
III.9	Landscape management programmes	Voluntary programmes: type, area covered, number of farms participating, duration of programme, financial volume; programmes for set-aside measures; expenditures (for subsidies and/or premiums) for schemes of extensive or organic farming	Subsidies and other economic incentives to encourage farmers and other land-owners for sustainable landscape managing		
III.10	Land tenure / consolidation	Shape and size of agricultural plots (field patterns), kinds and length of field margin zones	Change in structure and diversity of the landscape and in the aesthetic and landscape experience		
III.11	Regional marketing of agricultural products	Existence and number of special labelling systems; extent of product variety typically for the region	Special marketing arragements for products with strong regional identity to promote consumer confidence (*mise en valeur* of regional resources)		

Table A-2 (continued)

Category IV: Special legislation instruments a) international level b) national level					
Number	**Indicator**	**Type of measuring instrument and range of measuring**	**Objective / purpose**	**Availability of data and data sources**	**Territorial unit/scale**
IV.a.1	IUCN category V "protected landscapes"	Location, size, year of foundation, number, percentage of total area etc. of protected landscapes, share of this category in relation to all other existing protected areas, share of governmental and privately owned land and of the land cover (site characteristics) in the protected landscape	Shows the attempt to safeguard the integrity of traditional interaction between people and nature which has produced areas of distinct character with significant aesthetic, cultural and ecological value	Available WCMC (United Nations List of National Parks and Protected Areas)	1:250,000 – 1:500,000
IV.a.2	UNESCO category "World Heritage Site"	Location, size, year of foundation, number, percentage of total area etc., share of governmental and privately owned land and of the landcover (site characteristics); especially inscription as cultural landscapes on the UNESCO list	Indication for the (exceptional) universal value of an individual cultural landscape (degree of authenticity)	Available ICOMOS/UNESCO World Heritage Centre (Properties included in the World Heritage List)	1:250,000 – 1:500,000
IV.a.3	UNESCO MAB programme category "Biosphere Reserve"	Location, size, year of foundation, number, percentage of total area etc. of protected landscapes, share of this category in relation to all other existing protected areas, share of governmental and privately owned land and of the land cover (site characteristics); research and monitoring activities	Preservation of genetic resources (biodiversity) ecosystems and cultural landscapes as well as fostering a sustainable economic and human development	MAB The World Network of Biosphere Reserves/ UNESCO Biosphere Reserve Directory	1:250,000 – 1:500,000
IV.b.4	National tentative list for the UNESCO	Number, types and size of areas and sites on the tentative list of cultural landscapes for the nomination as World Heritage Site by the UNESCO	Indicator for the rarity and national and European value of cultural landscapes	Present already for Austria, France and the Netherlands/ UNESCO World Heritage Centre	
IV.b.5	National legislative system	Laws and acts on environmental and nature protection types and criteria for legally protected areas (especially cultural landscapes)	Differences in official definitions of cultural landscapes and in preservation tools	DocTer International/ Centre on Environmental Legislation, Bonn	

Category V: Cultural significance values					
Number	**Indicator**	**Type of measuring instrument and range of measuring**	**Objective / purpose**	**Availability of data and data sources**	**Territorial unit/scale**
V.1	Age	Epoch of origin back to prehistoric times; visual age	Represents cultural history		
V.2	Leisure and tourism	Actual number of visitors or reference in touristic maps or guides	Determines popularity, economic and external value		
V.3	Formal shaping	Structural and intrinsic value in historical context	Determines state of art and techniques of landscape architectural measures		
V.4	Condition of preservation	Degree of physiognomic condition (from very good shape to totally destroyed)	Possibility of recognizing and understanding for interpretation purposes or environmental education		
V.5	Commonness	Spatial distribution in the regional as well as in national or international context	Determines rarity value (external)		
V.6	Regional identity	Landscape typical elements, that are known within the local communities and relevant for local or regional traditions	Determines native consciousness and internal value		

Table A-2 (continued)

Category V: Cultural significance values					
Number	**Indicator**	**Type of measuring instrument and range of measuring**	**Objective / purpose**	**Availability of data and data sources**	**Territorial unit/scale**
V.7	Persistency	Constancy of economic significance in historical context	Determines historic and economic value		
V.8	Intensity of use	Economic significance in the actual context	Determines actual economic value and likeliness of changes		
V.9	Landscape aesthetics	Diversity and character of landscape view and optical effects within the surrounding environment	Determines internal and external value, attractivity for touristic and leisure activities; determining soft location factor		
V.10	Experience interpretation	Number, location and size of landscape and open-air museums (écomusées), cultural historic education paths and their visitor numbers	Determines leisure, tourism and educational value and soft location factor		

A-2.4 (Cultural) Landscape Typology of Europe

Above (chapter A-2.3), the difference between cultural landscape individuals and cultural landscape types has been reflected. Before one famous approach for a typology will be regarded closer, some examples of European cultural landscapes will be introduced.

- Field patterns – e.g. *fenland* and *polder landscape*, the Netherlands; *crofting*, Ireland and Scotland; *coltura promiscua*, central Italy.
- Drovers roads/transhumance system – i.e., *canadas*, Spain; also in Greece and Italy.
- Pastureland – e.g. *dehesas*, Spain; *montados*, Portugal; *moor- and heatherlands* (highlands of Great Britain).
- Orchards – e.g. south-west Germany, France, Luxembourg.
- Hedgerow – e.g. *bocage*, western France; *Knick*, northern Germany; *Kampenlandschap*, Belgium and the Netherlands; Brittany, western Denmark and south-western Sweden.
- Cultivated terraces – e.g. vineyards on steep valley slopes, Austria, Germany, Italy, Portugal; crop terraces in Spain.
- Intensive arable farming e.g., *Bördelandschaft*, northern Germany.
- Drainage – e.g. *Marschland*, northern parts of Belgium, France, Germany, the Netherlands (windmills of Holland).
- Ancient heavy industry plants – old industrial and mining landscapes, e.g. *Völklinger Hütte*, western Germany.
- Irrigation – e.g. windmills of the islands of Greek and Mallorca; *Schemelwiesen*, highlands of Germany.
- Arctic tundra – reindeer husbandry in Finland and Sweden.

The probably most frequently cited approach of a landscape typology is the one carried out by MEEUS (1995) on the basis of MEEUS, WIJERMANS & VROOM (1990). It is taken over by STANNERS & BOURDEAU (1995) in their "Dobríš Assessment on Europe's Environment" on behalf of the European Environment Agency (EEA), a document which provides an overall view on the environmental situation in Europe highlighting twelve prominent European environmental problems.

For identifying the most important landscape types, MEEUS (1995: 61f.) applies six selection criteria:

- Main land forms that characterise the geological and climatic zones.
- Economic potential of land use and landscape.
- Landscapes that are characterised by a combination of ecologically sound processes and sustainable use of natural resources.
- Extensively managed areas (as substitute for the true wilderness areas, which are absent in most parts of Europe).
- Regionally specific settlement patterns, ancient field systems, old trees, terraces and vernacular architecture.
- Scenic quality and visual characteristics.

Through findings deriving from analyses of reports, publications, cartographic studies and planning proposals, a statistical analysis based on EUROSTAT data, a visual analysis of case studies and through interviews and discussions with experts all over Europe combined with the above listed selection criteria, MEEUS defines 30 pan-European landscapes, which are grouped into eight distinctive landscape types in the *Dobríš Assessment on Europe's Environment*. These landscape types are illustrated in table A-3.

MEEUS' landscape typology is not only the most cited, but probably also the most criticised approach within the circle of experts (cf. e.g. SCHENK 1997a and 1997b; VERVLOET & SPEK 1998; VOS 1999). They express disapproval of the fact, that the characterisation is dominated by natural aspects, whereas influences by man are, if at all, of secondary importance. The only "artificial" landscapes are polders, some deltas and the Spanish "*huertas*", while e.g. towns and cities are regarded to be landscape-deteriorating instead of seeing them as a part of landscape. Trade and traffic landscapes, mining and industrial landscapes as well as urban cultural landscapes are not mentioned at all.

This imbalance between natural and anthropical criteria does not only become obvious in the classification, but also in the choice of terminology: in northern Europe, mainly natural criteria are used and types are named *Tundra* and *Taiga*, while in

central and southern Europe the land-use type, formal shaping or the like are regarded, which results in types named e.g. *openfields* or *bocage*. Another point of critique is, that MEEUS' classification is not consistent. Heather landscapes are classified in landscape type number 8 "nordic highlands" by MEEUS, whereas one can find them also in lowland areas of central Europe (but with a different degree of human influence and history), e.g. *Lüneburger Heide* in northern Germany. Landscapes that fit in neither one of the other categories are called "regional landscapes".

"Terraces", MEEUS' (1995:63) landscape type number 30, do not appear as a proper type in the Dobříš Assessment, although they can be considered as an important element of the European cultural heritage – not to mention that there are also different (sub-) types of terraces. This lack is due to the scale of the examination. Social and historical aspects influence cultural landscapes on an often very small dimension, which is not even roughly represented in the chosen presentation scales of about 1:35 Mio. Moreover it could be counter-productive to the original intention, if the responsible planners and policy-makers conceive, MEEUS' 30 types and 8 types in the Dobříš Assessment (which are politically relevant) represent the real diversity of European cultural landscapes. The same is true for the illustrations and descriptions, which represent stereotypes rather than reality. Landscapes are romanticised and idealised. Landscape values and functions are seen as described too positively, although negative performance is one part of history, which resulted in the actual landscape, as well.

Therefore the broad variety of cultural landscape types is not reflected properly, this classification does not seem to be sufficient for a deeper study on cultural landscapes. Taking into account the degree of economic (agricultural and technical) influence, especially referring to the landscapes marked with "+" or "++" in table A-3, the existence of a variety of other types and sub-types of cultural landscapes can be assumed. These have been neglected in the Dobříš Assessment or have been sacrificed to simplification, to mention only old orchards and the *canadas*, old drovers roads and transhumance systems as examples.

Table A-3
Pan-European landscape types, distinctive landscape types and their degree of human influence

Distinctive landscape types (Dobříš Assessment, Stanners & Bourdeau 1995)		Landscape Number	Pan-European landscape types (Meeus 1993)	Traditional degree of agricultural/ tech-nical human influence*
I	Tundras	1	Arctic tundra	– –
		2	Forest tundra	– –
II	Taigas	3	Boreal swamp	– –
		4	Northern taiga	–
		5	Central taiga	–
		6	Southern taiga	–
		7	Subtaiga	0
III	Uplands	8	Nordic highlands	0
		9	Mountains	0
IV	Bocages	10	Atlantic bocage	+
		11	Atlantic semi-bocage	+
		12	Mediterranean semi-bocage	+
V	Openfields	13	Atlantic open fields	+ +
		14	Continental open fields	+
		15	Aquitaine open fields	+ +
		16	Former open fields	+ +
		17	Collective open fields	+ +
		18	Mediterranean open land	+
VII	Regional landscapes	19	Coltura promiscua	+
		20	Montados / dehesa	0
VIII	Artificial landscapes	21	Delta	+ +
		22	Huerta	+ +
		23	Polder	+ +
VII	Regional landscapes	24	Kampen	+
		25	Roland's strip fields	+
VI	Steppic and arid landscapes	26	Puszta	0
		27	Steppe	0
		28	Semi-desert	–
		29	Sandy desert	– –
–/–	*Do not appear*	30	Terraces	+ +

Source: Meeus (1993), Stanners & Bourdeau (1995)

* Legend:
– – very low
– low
0 medium
+ high
+ + very high

Other attempts to carry out typologies on cultural landscapes are in process, e.g. under the auspices of the Department of World Physical Geography and Geoecology at the Moscow State University (MILANOVA & KUSHLIN 1993), by the Winand Staring Centre for Integrated Land, Soil and Water Research (VERVLOET & SPEK 1998) and by the Land Use Planning Group of the Department of Environmental Sciences at Wageningen University (JONGMAN & BUNCE 1999). Regarding those, there are not any results yet.

A-3 Presentation of Indicators and Results

A-3.1 Results of Survey among SPESP National Focal Points

In order to make a choice from the range of indicators introduced in Table A-2 for the further proceeding in the project, a questionaire was sent to all NFPs. The NFPs were asked to evaluate different requirements of the indicators (cf. B-1.2).

Starting from August 1999, the filled-in questionnaires were returned by the NFP's. Sometimes, the NFP's themselves filled in the questionnaire, in other cases other collaborating institutions or persons were instructed. Return quota was very low in the beginning (see table A-4). For each indicator proposed a special scheme was to be filled out. The questionaire with the answers of the German NFP is attached to this report, see page 89. "Availability", "comparability" and "significance" were considered to be the most important aspects for our purpose. Because of this they received a double weight in the evaluation. This led to the following ranks of the indicators:

1. Utilised Agricultural Areas (share of utilised area / total agricultural area)
2. Number and size of farms (average size of agricultural holding)
3. Agricultural land use types (number of organic farms, certified and in conversion),
4. Agricultural land use types (share of rough pastures)
5. Manufacturing/ mining activities (number and location of industrial and mining enterprises)
6. Structure of farms (share of farm holders of age 55 years and older)
7. Land prices
8. Agricultural land use types (share of area under organic farming / total agricultural area)
9. Agrochemical input (amount of fertilizers in N applied)
10. Farm income (family farm income per family work level)
11. Landscape management programmes (number of agricultural holdings participating in agri-environment scheme)
12. Agricultural land use types (share of less favoured areas / Utilised Agricultural Areas)
13. Landscape management programmes (share of area under voluntary set-aside / total agricultural area)
14. Landscape management programmes (other types of programmes (number and expenditures in ECU / year))
15. Farm income (share of direct subsidies in the income)
16. Manufacturing / mining activities (production capacity of the enterprises)
17. Landscape management programmes (share of agricultural area under agri-environment scheme)
18. Landscape management programmes (numbers of holdings under voluntary set-aside).

The two most important indicators reflect the outstanding position of agricultural used landscapes in the topic of cultural landscapes. The third and fourth ones indicate that extensive use of space contributes to a perception of landscape as cultural. But still other activities of man than agriculture play an important role, documented by the fifth indicator concerning old-industrialised regions. Striking is that the landscape management programmes are considered to be of minor importance when evaluating cultural landscapes.

Table A-4
Answers of National Focal Points to questionnaire

NFP	Date of answer	Number of additional indicator	Number of case studies	Availability typology / classification
Austria	09.08.99	1	3	Cultural Landscape Research Programme
Belgium	06.09.99	2	(Antrop 1997)	?
Denmark	06.08.99	(1)	0	no national authorised classification, but proxies
Finland	19.08.99	2	2	150 nationally important landscapes
France	no reply until 12/99	?	?	?
Germany	19.09.99	2	2	Naturräumliche Gliederung
Greece	12.10.99	2	1	?
Ireland	09.09.99	0	0	Atlas of Irish Landscape
Italy	05.10.99	0	0	Atlas of Rural Territory
Luxembourg	08.09.99	0	3	?
Portugal	no reply until 12/99	?	?	?
Spain	12.09.99	0 (with comment)	5	none
Sweden	13.10.99	0	0	cf. National Atlas of Sweden
The Netherlands	13.09.99	0	"very many"	in progress
United Kingdom	04.10.99	0	0	cf. English Nature; The Countryside Agency

The results gave hints for the final selection of indicators, but could not be taken over directly, as the situation of data availability for EU level did not reflect the importance of individual indicators highlighted by the SPESP members.

In the questionnaire, there was also space for the NFPs to suggest (new) indicators not mentioned in the questionnaire. The following proposals were made:

- Austria proposed the OECD scheme for territorial indicators, that shows the rural/urban characteristic of a territorial unit, as an general indicator which gives information about the intensity of land use pressure.
- Belgium mentioned with a indicator for undisturbed cultural landscapes and one on the occurrence of cultural objects in the landscape, the latter one being more interesting for our Italian counterparts (see Part B).

The first one being closely associated to an indicator proposed by Germany.

- Germany proposed one indicator called “landscape dissection”, and another one called “mining areas”.
- As for the Scandinavian countries forestry is an important issue. Finland came up with two indicators on the structure of farms (share of forests from the farm size and share of sown land from the farm size).
- Greece proposed 2 new indicators both referring to irrigation.
- Spain did not propose any additional indicator, stating that this working methodology is not considered operative, as long as there has been no previous clear definition of what is sought and the main cultural landscape typologies has not been defined.

Table A-5 (page 44) gives a complete overview over the new indicators proposed by NFPs.

Case studies proposed by the NFPs can be found in table A-6 (page 45). The example of Austria, carrying out an outstanding integrated project on cultural landscape research, will be introduced in more detail in chapter A-3.4

Table A-5
Overview of additional indicators

NFP	Your indicator	Measuring instrument "What does the indicator measure?"	Objective / purpose "Why do we need this indicator?"	Possible data sources "Where do we get the data from?"	Information about data format and territorial unit/scale of data "What are the data like? How can we work with the data?"	Availability of data	Credibility / comprehensibility	Comparability	Significance	Threshold /benchmark
Austria	OCED scheme for territorial indicators (see annex 2)	The rural/urban characteristic of a territorial unit	It is a general indicator, which gives information about the intensity of land use pressure	The population density is generally available on local and regional level		**H** A L	**H** A L	**H** A L	**H** A **L**	H **A** L
Belgium	Undisturbed cultural landscape (heritage 1)	Area of undisturbed landscape: absolute area or as proportion/ municipality or km²	Fragmented relic zones in highly disturbed and fragmented urbanised space	Flanders region: atlas of relics of traditional land-scapes	GIS database	**H** A **L**	H **A** L	H **A** L	**H** A L	H **A** L
				Brussels/Wallonia: to be interpreted from maps and aerial photographs						
Belgium	Occurrence of cultural objects in the landscape (heritage 2)	Relic elements/km²	Densitiy of heritage elements	Flanders: atlases of relics of traditional landscape; architectural inventory Wallonia: archi-tectural inventory, monographs Federal: tourist maps of NGI (only partial)	GIS database Publications Maps 1:100,000	**H** **A** L	H **A** L	H **A** L	**H** A L	H **A** L
Finland	Structure of farms	Share of forests from the farm size				**H** A L	**H** A L	**H** A L	**H** A L	H **A** L
Finland	Structure of farms	Share of forests from the farm size				**H** A L	**H** A L	**H** A L	**H** A L	H **A** L
Germany	Mining area	Area under mining activities / total land or provincial area	Endangering	Land use statistics Fachserie 3, Reihe 5.1 StBA	NUTS 3	**H** A L	H **A** L	H **A** L	H **A** L	H A L
Germany	Landscape dissection	Share of undissected (re-maining) area within "nearby" area or admini-strative region	Endangering by infrastructure	Overlaying of instructure by GIS	e.g. Aggregation by NUTS 3 / at any other geometrical level	**H** A L	**H** A L	H **A** L	H **A** L	H **A** L
Greece	Agricultural land – use intensity	Number of irrigated exploitations	Environment, natural resources restructural policies	University of Thessalia, Dept. of Planning and Regional Develop-ment, Laboratory of Rural Areas	First level of administration	**H** A L	**H** A L	**H** A L	**H** A L	H **A** L
Greece	Agricultural land – use intensity	Irrigated land			First level of administration	**H** A L	**H** A L	**H** A L	**H** A L	H **A** L
Spain	No additional indicators are proposed. We consider that this working methdology it is not operative if there has been no previous clear definition of what is sought and the main cultural landscape typologies has not been defined.					H A L	H A L	H A L	H A L	H A L

H = High A = Average L = low

Table A-6
Overview of case studies

NFP	Case study	Age	Leisure and tourism	Formal shaping	Condition of preservation	Commonness	Regional identity	Persistency	Intensity of use (e.g. size of agricultural plots)	Landscape aesthetics	Experience / interpretation	Regional marketing of (agricultural) products
Austria	A number of studies inside the cultural research programm	from 1995 ongoing	x	?	x	?	?	?	?	?	?	?
Austria	Typology of cultural landscape in Austria	1999?						x				
Austria	Lets Dare Method	ongoing	x	x		x	x		x	?		
Germany	International Building Exhibition, Ruhr Area	x	x	x	x	x	x	x	x	x	x	
Germany	Weinanbaugebiete von Rheinland-Pfalz (Steillagen-Weinbaulandschaften)	x	x	x	x	x	x	x	x	x	x	x
Spain	Sierra de Gredos	x	x	x	x		x	x	x			
Spain	Madrid Landscapes	x	x	x	x		x	x	x			
Spain	The urban landscape of the old district of Cuenca	x	x	x	x		x	x		x		
Spain	Eco-museum Saja-Nansa	x	x	x	x		x	x	x		x	
Spain	Olivar of Génave				x							
Finland	Hämeen-Kyrö (see note 2)	x		x	x	x	x	x	x	x	x	
Finland	Vuokatt (see note 2)	x	x	x	x	x		x	x	x	x	
Greece	North-Western Epirus and Argolid Valley	x			x		x	x		x		
Italy	Regione Abruzzo (Atlas of Rural Territory)			x	x		x		x			x
Italy	Atlas of Italian landscapes	x		x		x	x	x		x	x	
Italy	Literature Parks											
Italy	Parco dell' Appia Antica	x	x	x	x					x	x	
Luxembourg	De Naturpark Uewer-sauer-eng Chance fir d'Regioun/Parc Naturel de la Haute-Sûre	10/4	x	x	x	x	x			x	x	x
Luxembourg	Naturpark "Dreiländereck"	1	x	x	x	x	x		x	x	x	x
The Netherlands	"very much"	no information										

A-3.2 Results of Indirect Assessment (EUROSTAT Database)

Driven by the availability of data, seven indicators were chosen to construct the two main factors determining the European cultural landscapes: significance and endangerment. The significance degree tries to give on overview over areas with a great share of landscapes which are considered to be cultural ones. Whereas the endangering degree shows areas where trends of destruction of cultural landscapes are evident.

As the interest for the cultural landscape complex on a supranational scale is relatively new, there is only limited data on the whole topic on a small scale. For this reason the statistical territorial unit level of NUTS 2 was chosen. It gets clear that this is not the adequate scale for the measurement of small structured topics as it is the case with cultural landscapes.

The significance degree is the first to look at. Three indicators were chosen: "agricultural production by UAA (output by UAA)" stands together with the indicator measuring the "share of farms with a UAA less than 20 ha by total units" for the doubtless important agrarian influenced landscapes. The indicators show regions with intensification trends and a small structured agricultural use pattern, correlated with non-industrialised ways of production (see maps A-1 and A-2). Highest values can be found in Belgium, the Netherlands and the Po Region. Small-scale farm structures occur predominantly in Mediterranean countries, as the corresponding map shows for Italy, Greece and Portugal.

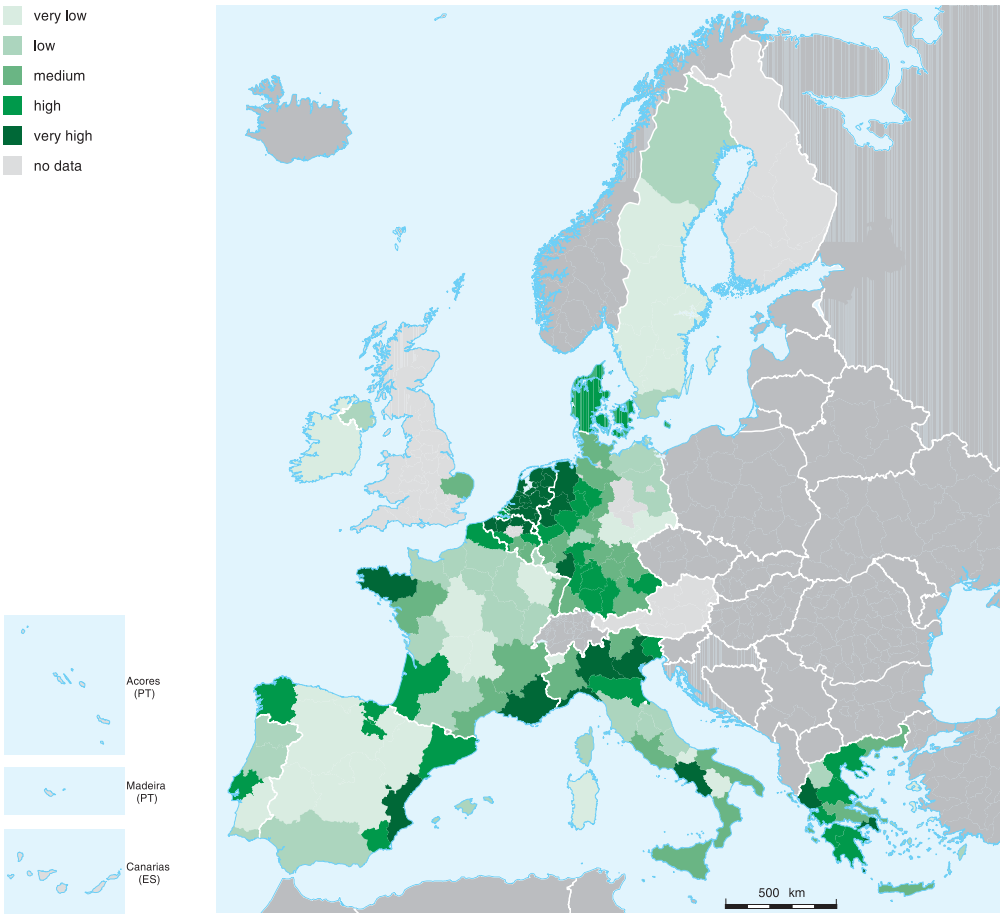
The third – "yearly tourist stays" – represents the attractiveness of a rural or urban cultural landscape (see map A-3). Although one severe problem is that the day tourists are not included. First of all it gets clear that urban tourism e.g. in Paris, Madrid and Berlin plays a major role. But also classic tourist destinations as the coastal and alpine areas are visible.

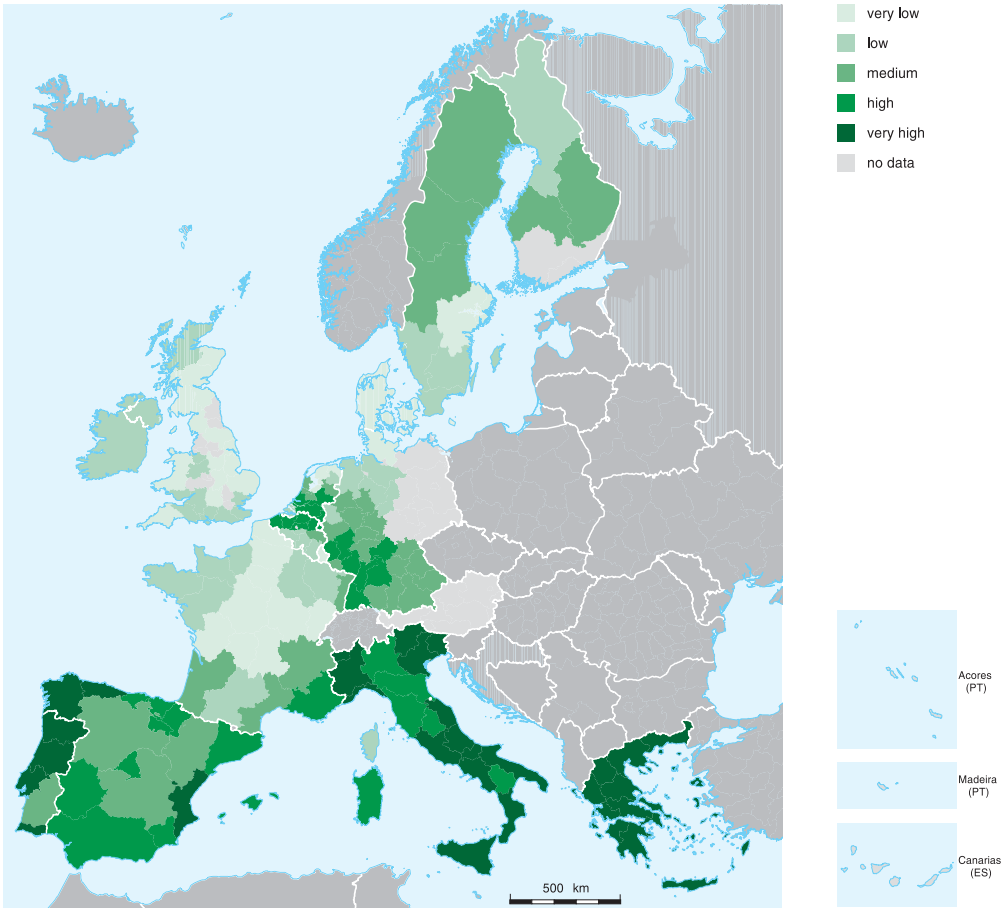
The same classification scheme is used for all indicators: five classes are build using quantiles to determine the membership of

Map A-1
Agricultural output by utilised agricultural area (in ECU)

EUROSTAT-Data from 1996

No data for Austria, Finland and United Kingdom, parts of Belgium and Germany, Madeira, Acores, Canaries, Ceuta, Melilla

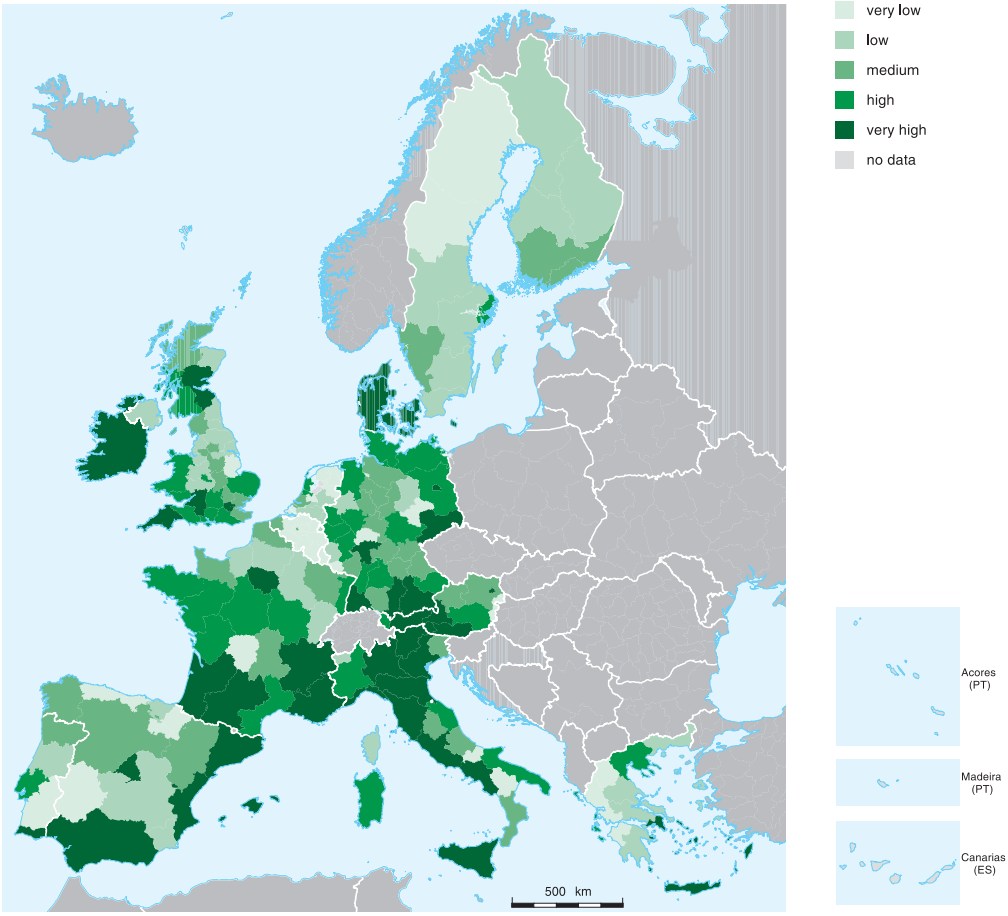




Map A-2
Share of farms with utilised agricultural areas of less than 20 ha by total units

EUROSTAT-Data from 1995

No data for Austria, Brussels, New German Länder and City States, parts of Finland and United Kingdom, Madeira, Acores, Canaries, Ceuta, Melilla



Map A-3
Yearly tourist stays (without day tourists)

EUROSTAT-Data from 1997/8, Netherlands 1994

No data for Flevoland, Madeira, Acores, Canaries

each region. Each value is normalised with the spatial extent. In terms of agricultural indicators with the UAA, otherwise with the area of the region. The synthesis showing the combination of the three indicators is presented in map A-4. Where regions with high tourist stays and a high share of small farms, but a small output are ranked high. Lowest ranks are found in Belgium, the Netherlands, northern Germany.

The indicators were summed up without weighting. Missing values in one indicator lead to missing values in the synthesis.

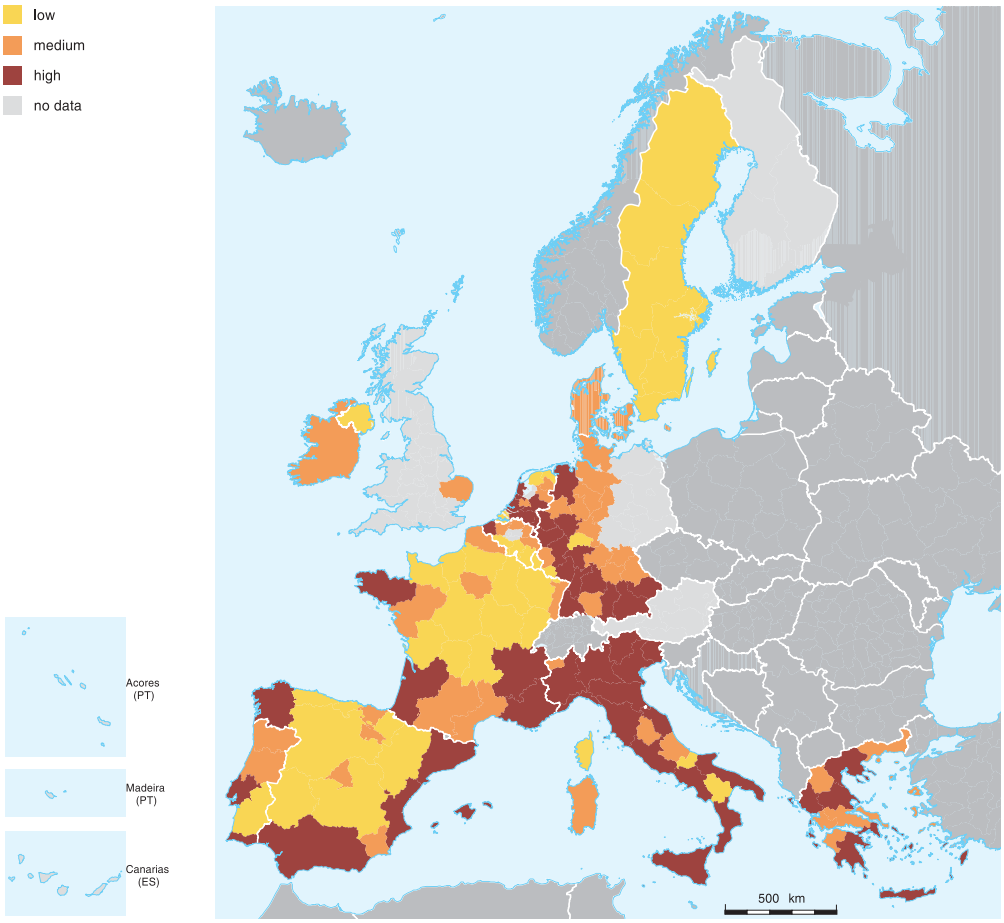
For the measurement of the endangering degree of a certain cultural landscape a variety of factors has to be taken into account. One indicator comprising many endangering impacts on landscape is the "population growth" of a certain area. It measures on the one hand the land use pressure when increasing, but also abandonment trends when decreasing (see map A-5). The map shows the urban regions as critical in terms of high land use pressure but also other regions in public conceived as rural areas are under pressure. On the other side areas of population decrease like e.g. the rural areas of Spain should be considered to be endangered.

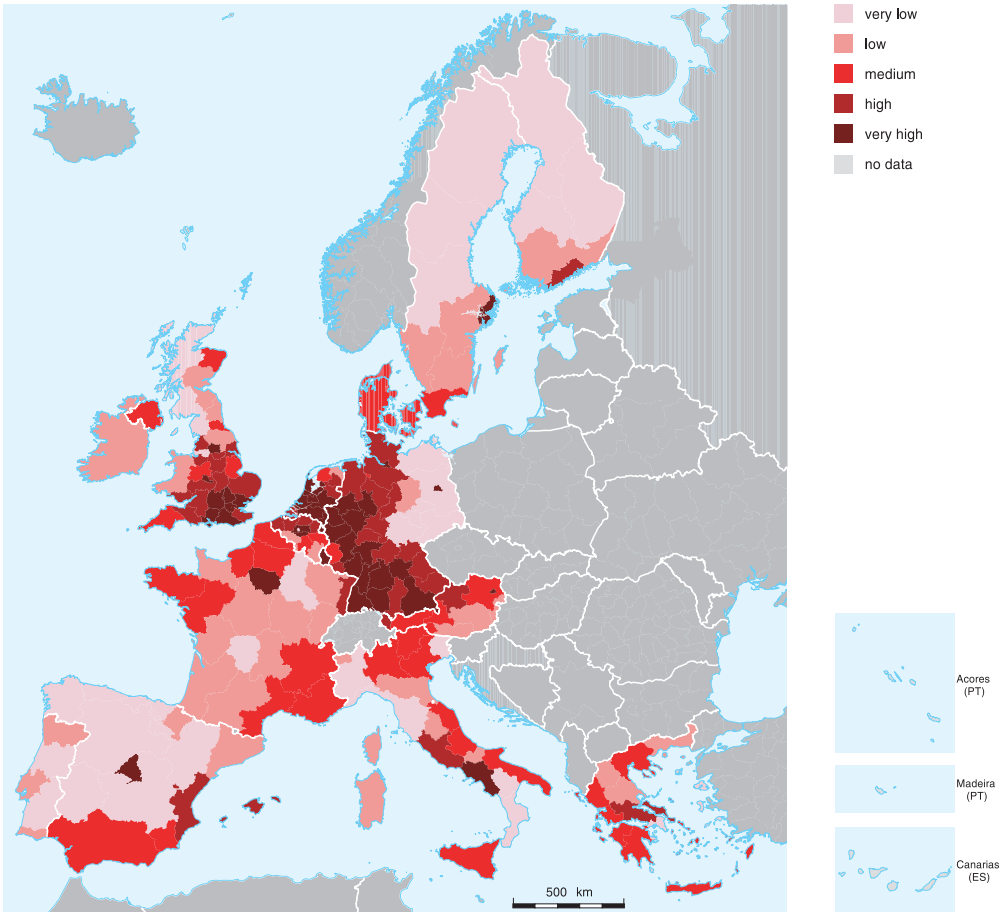
Representing a number of destroying factors, the "dissection of a landscape" was chosen. Here only the length of the transportation network by total area could be taken into account, as no other data was available. This indicator shows, what for the most others is also true: An international comparison is not allowed, as the ways of data gathering differ and would lead to wrong results, as can be seen in map A-6 when comparing Ireland and southern Germany. In France no differentiation is visible and it seems to have the same dissection throughout the country. However, this does in no way correspond to reality.

As in terms of significance great attention was given to agricultural indicators when calculating the endangering degree. The indicator "use of energy and lubricants by UAA" gives an idea of agricultural areas with

Map A-4
Significance

Synthesis of the indicators displayed in maps A-1, A-2 and A-3

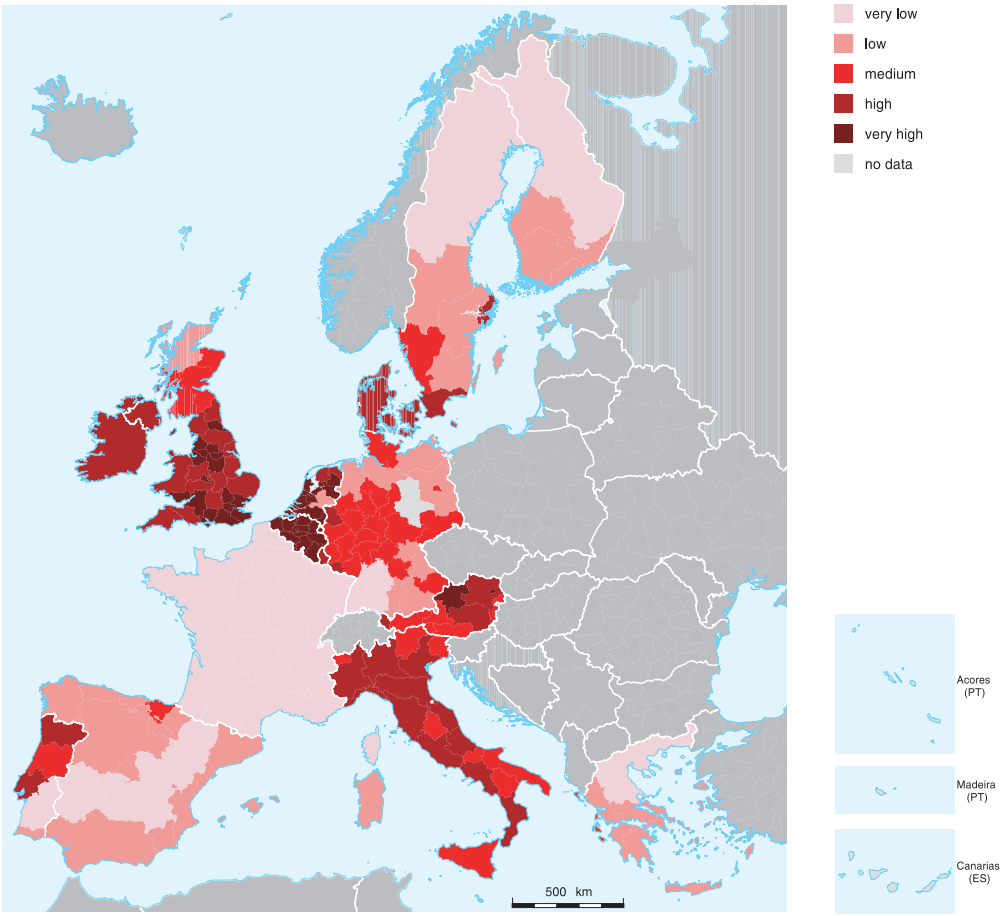




Map A-5
Population growth 1991 - 1995 by total area

EUROSTAT-Data from 1991 and 1995

No data for Madeira, Acores, Canaries, Ceuta, Melilla



Map A-6
Landscape dissection (length of transportation network by total area)

EUROSTAT-Data from different years

No data for Madeira, Acores, Canaries, Ceuta, Melilla, Dessau, Halle, Magdeburg, Ahvenanmaa

intense use of area. Leading to high values in the Netherlands and low and very low values in Ireland respectively central Spain (see map A-7).

The “standard gross margin“ serves as a mean to measure the rentability of use of the agricultural area: low values leading to abandonment, high to overuse of the cultural landscape (see map A-8). Comparable to map A-1 Belgium, the Netherlands and the Po Region receive high values, whereas the greatest part of Spain, Ireland, Scotland and the region of the Massif Centrale in France appear in the lowest class.

This aspect was given respect to in the way the endangerment indicators were combined in the synthesis map (see map A-9). The same procedure as with the significance degree was used when combining. The values are displayed in three classes, each class having the same number of areas. As, in the analytical maps, at least one of the applied indicators does not seem to be reliable, the results in the synthesis map are questionable, too. Nearly the entire territory of Spain and France seem to have no endangering impacts. Whereas Germany, the Netherlands, Belgium, Luxembourg, Denmark fall in the higher endangering classes. Italy shows the complete range.

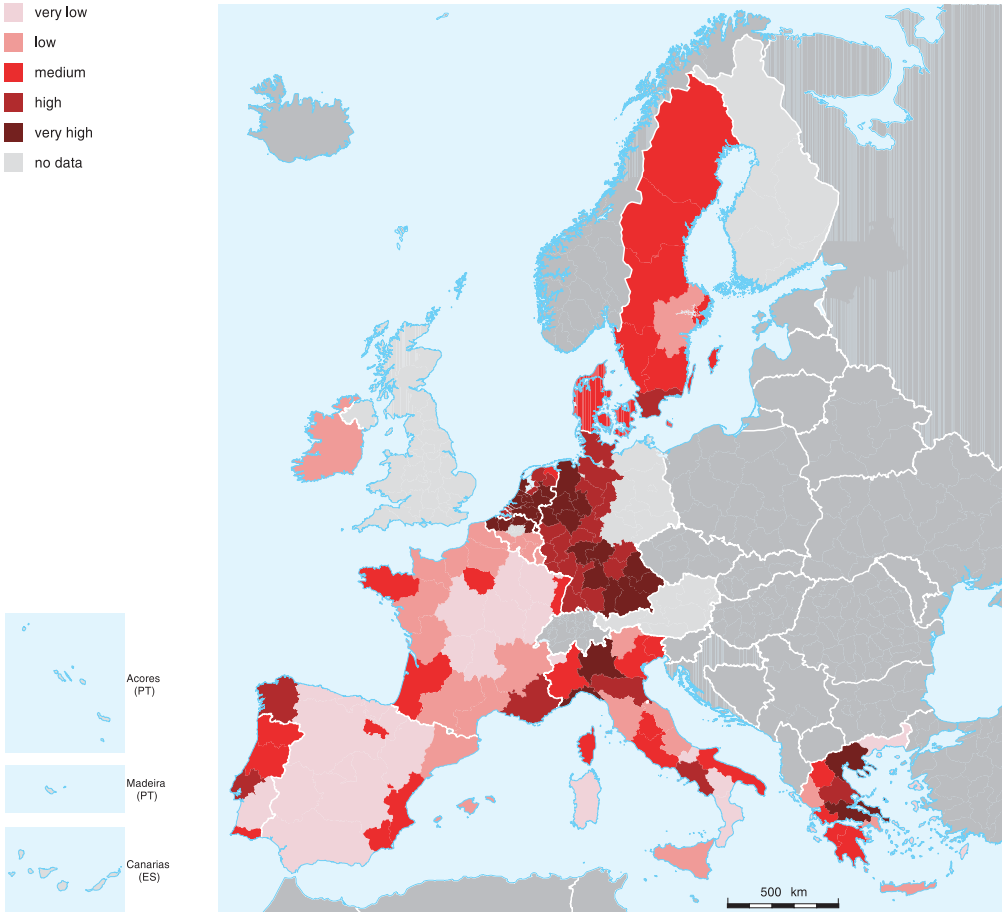
The maps cannot even give more than a very rough idea of the spatial distribution of cultural landscapes in Europe. It gets clear that the EUROSTAT database is not very reliable in this context. If at all, the figures provided by EUROSTAT allow only an interregional comparability within one country. Also it is questionable whether the used statistical units of the NUTS 2 level is adequate for the topic dealt with, as many cultural landscapes are much smaller than this scale and often do not end with the administrative border. But still for some aspects this data seems to be more suitable.

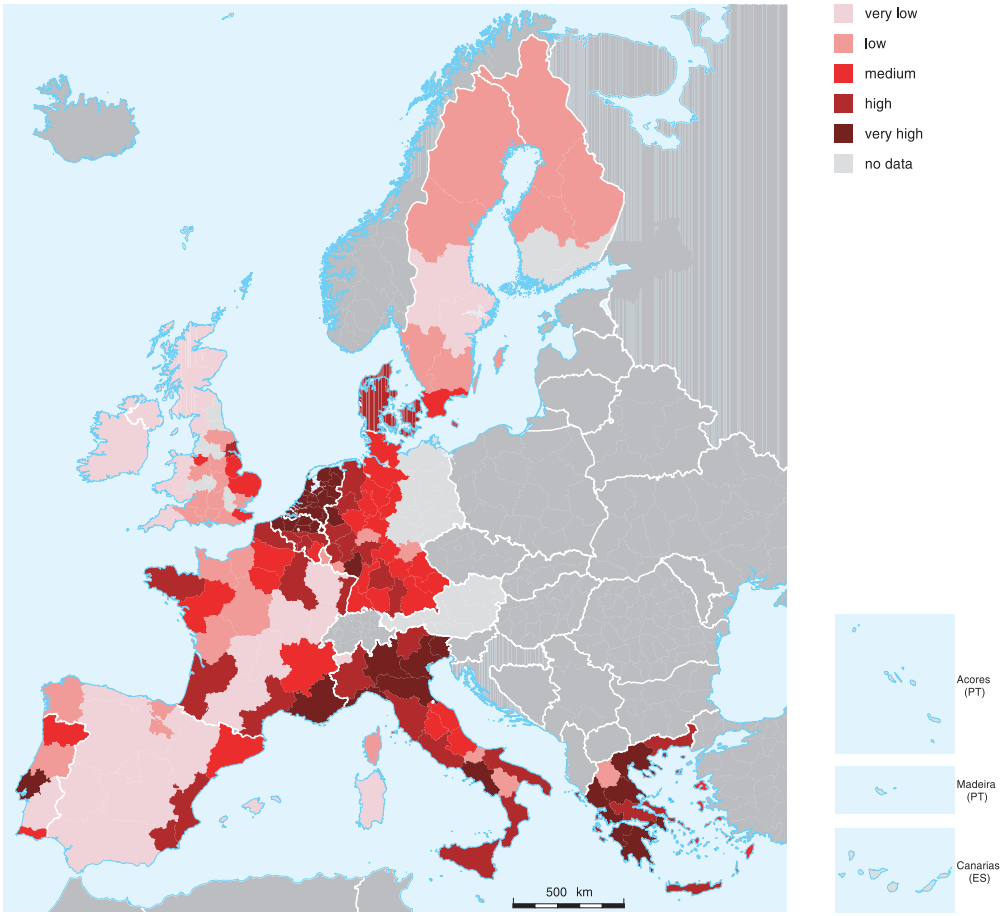
One aspect which is of great importance is the temporal chance in many regions. As this administrative data is regularly gathered the creation of time series, to show trends in the use of landscapes would have been interesting. Because of the inhomogenous way of data gathering this was not possible as the data availability over time is not the same for each country.

Map A-7
Use of energy and lubricants by utilised agricultural area

EUROSTAT-Data from 1996

No data for Austria, Finland, United Kingdom, parts of Belgium, New German Länder and City States, Madeira, Acores, Canaries, Ceuta, Melilla

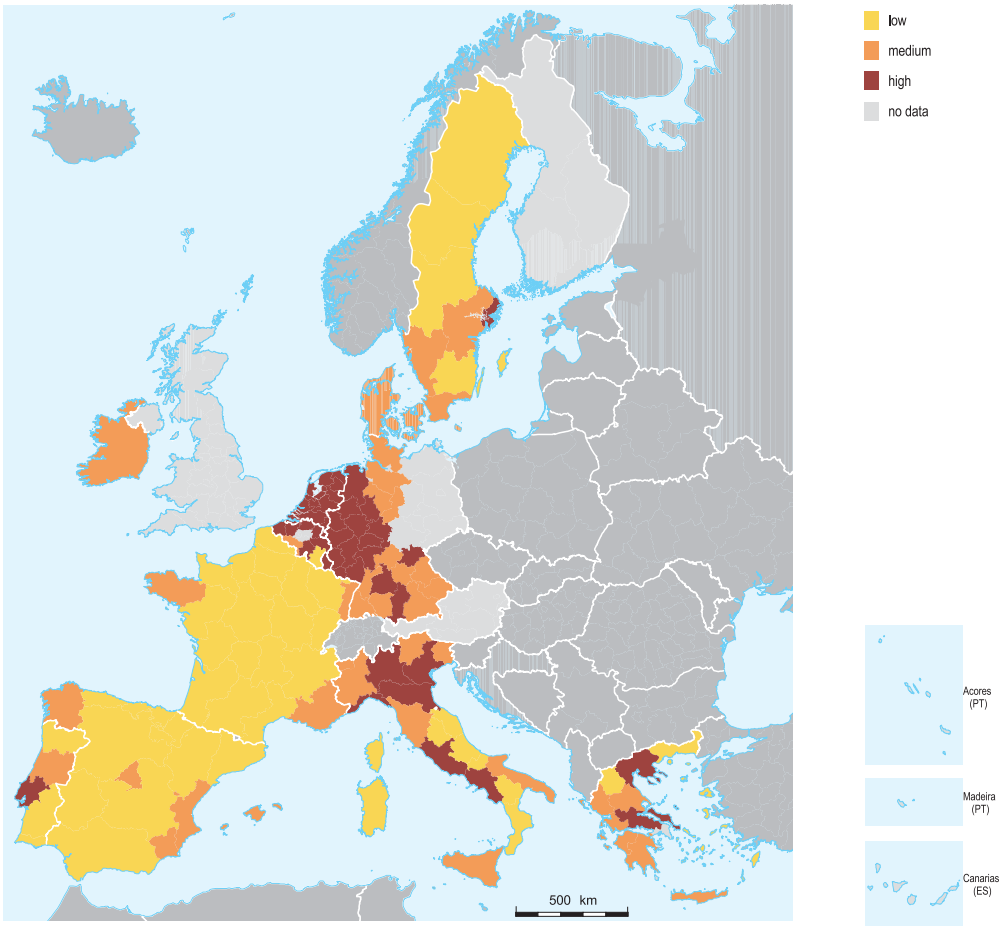




Map A-8
Standard gross margin by utilised agricultural area

EUROSTAT-Data from 1995

No data for Austria, Brussels, parts of Finland and United Kingdom, New German Länder and City States, Madeira, Acores, Canaries, Ceuta, Melilla



Map A-9
Endangerment

Synthesis of the indicators displayed in maps A-5, A-6, A-7 and A-8

A-3.3 Results of Direct Assessment (CORINE Land Cover Database)

Following the other possibility by taking the direct way, the CORINE Land Cover database seems to be a more adequate source.

CORINE provides comparable data and ensures an objective interpretation for the whole EU territory. Although the data are about ten years old and have a comparably low resolution (areas smaller than 25 ha are not mapped), they give a coarse information on land cover. The advantage of using remote sensing techniques is, that data collection does not have to follow administrative boundaries as cultural landscapes neither. Many aspects as for exampleon structural diversity can also be measured with remote sensing data.

By using CORINE data the diversity of the cultural landscape might be evaluated. Also landscapes with a low diversity can be considered as aesthetical attractive. There is an acceptance of this indicator by the major part of the actors in this field what the SPESP members appraisal has underlined, too.

For the measurement of diversity the major land cover types of the European Environmental Agency were used to create a diversity value. The value is computed by counting areas which have a different land cover within a circle with a diameter of 2000 m. This algorithm is used for every pixel in the satellite-derived image.

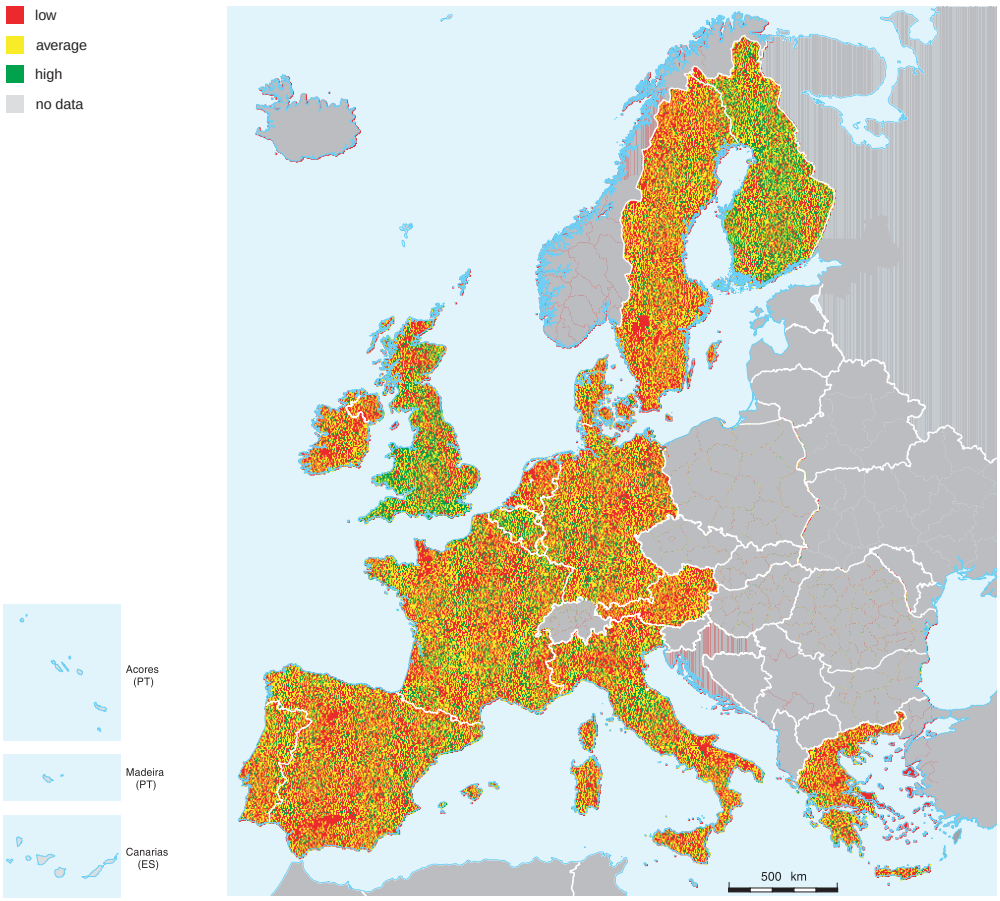
The map produced (see map A-10) has a limited validity as the spectrum of land cover is only roughly represented in the following seven classes as adopted from the EEA-European topic centre on land cover (Bergström 1998: 13):

Table A-7
Description of the seven major land cover types of Europe

Class	Description
1	Artificial territories
2	Strongly artificial vegetated areas
3	Less artificial vegetated areas
4	Forests
5	Non-wooded seminatural areas
6	Wetlands
7	Water surfaces

Map A-10
Diversity index

Data scource: Corine Landcover; own computations



But still spatial distribution of diverse or uniform areas is recognisable, e.g. Finland with its forests interlaced with numerous lakes appears much more diverse than Sweden with its uniform coniferous forest of the Tundra and Taiga. Red colour indicates high intensity of (agricultural) use, as e.g. in Belgium, the Netherlands, northern Germany, the Po Region. The table on the right shows the distribution of the computed diversity index all over Europe. Not very much encouraging is the low occupancy of the higher diversity classes.

By comparing satellite-derived images with a higher resolution dating out of different years, a reliable basis for information on the endangering degree of cultural landscapes would be given.

A case study completes this direct way of evaluating the cultural landscapes based on remote sensing data (cf. chapter A-3.4).

Table A-8
Description of the diversity index

Diversity	Area (in % of total EU territory)
extremely low 1	13.149
2	35.154
3	34.764
4	13.900
5	2.677
6	0.327
7	0.027
extremely high 8	0.002
Total	**100.000**

A-3.4 Case Study Austria

The Austrian National Research Initiative on cultural landscapes was launched in 1995 by the Federal Ministry of Science and Transport and focuses on a programme for developing and implementing sustainability concepts for cultural landscapes on a regional level. The interdisciplinary way in which this so-called “Cultural Landscape Research Programme” is developed follows a strategic political aim with the target of effective nature and environmental protection (in the sense of sustainable use of European cultural landscapes) with as much consideration as possible of citizens concerned.

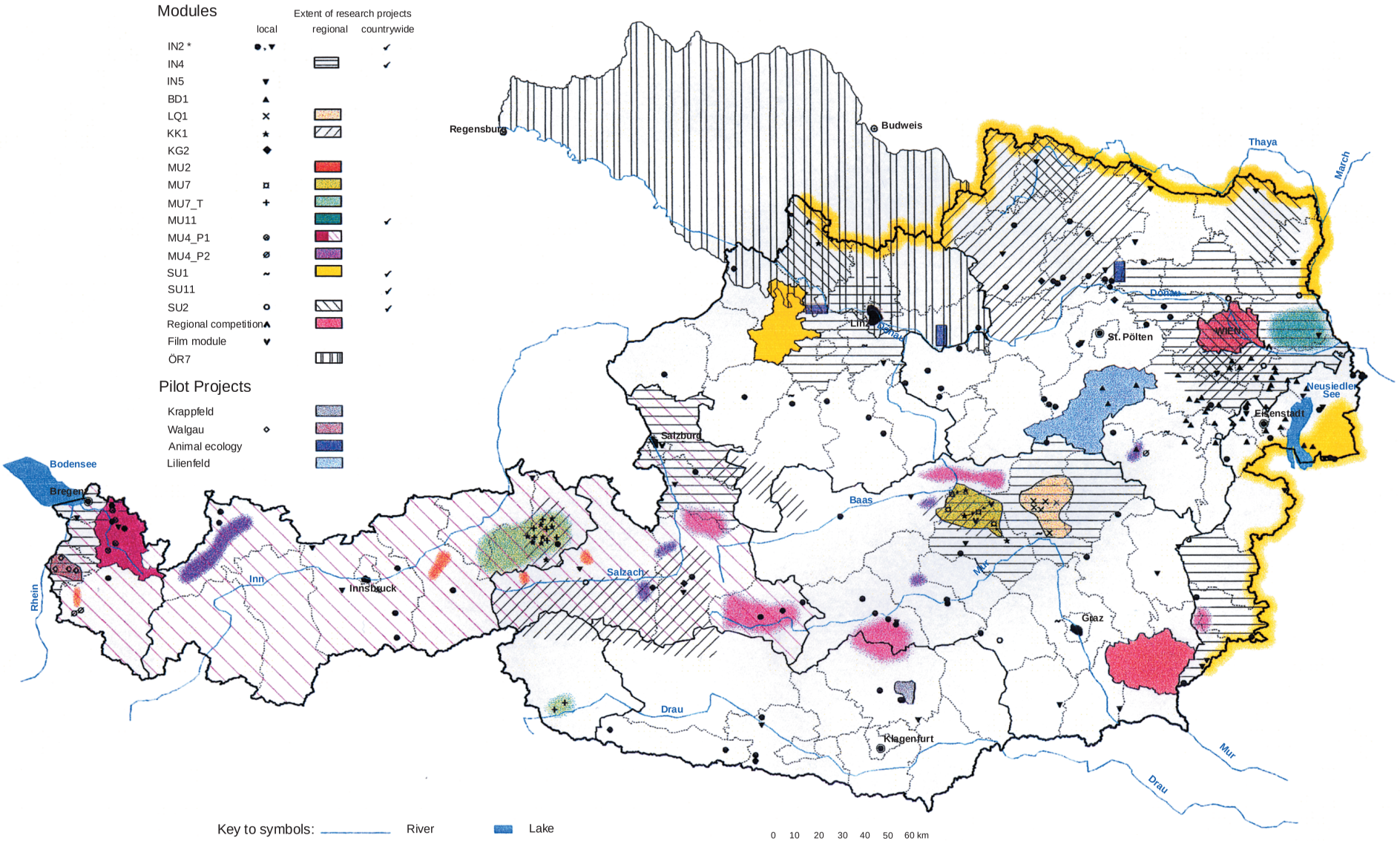
The Cultural Landscape Research Programme claims to have a holistic view of modern societies and their environment. It is clear, that questions concerning sustainable forms of use of cultural landscapes can be answered neither by social or economic nor by natural sciences alone. Therefore an interdisciplinary attempt (with currently about 180 scientists) is made, which means that agricultural economists co-operate with landscape ecologists, geographers with biologists and historians, sociologists and psychologists with landscape planners and so forth. But also non-scientists with a special knowledge in local or regional circumstances of cultural landscapes and their residents are involved in the activities. Moreover, artists and communication specialists treat research results and try to vulgarise them to a wider public.

Keyquestions of the Austrian National Research Initiative on sustainable development of cultural landscapes are:

- to observe the elements, structures and material flows within cultural landscapes as an effective way in determining the degree of sustainability,
- to safeguard the biological variety of cultural landscapes,
- to look in what way collective and personal perceptions of environments influences attitudes and actions towards cultural landscapes,
- to mediate different functions of the environment and human needs (e.g. touristic attractiveness, to provide food and drinking water etc.) without compromising the stability of cultural landscapes and
- to implement insights of scientific research on cultural landscapes into political decision-making (e.g. laws, development programmes and planning instruments).

The framework conditions for purposeful application of research results are implied in three programmatic and primary aims of the research focus:

Map A-11
Cultural Landscape Research Programme – study areas 1998



* All research areas of IN5 are also research areas of IN2.

Source: KLF Programme Coordination Office, Vienna (A)

- basic reduction of anthropic substance,
- optimization of the relationship between biodiversity and quality of life and
- promotion of life and development options within landscape dynamics.

In a 1997 documentation of the Cultural Landscape Research Programme altogether 139 projects with a wide range of research fields were presented, some of which have already been completed (31 %), some are ongoing (57 %) and some still at the planning stage (12 %). There are different research modules in progress – fields of subjects are for instance:

- IN4 – Colonizing Landscapes/Indicators for Sustainable Land Use;
- LQ1 – Quality of Life and Environmental Behaviour/Everyday Consensus and Conflicts;
- SU2 – Infrastructures and their Effects on the Development of Cultural Landscapes; etc.

The map Cultural Landscape Research Programme – study areas (see map A-11) shows the location of the different modules and of the four pilot projects, which were realised in the preparatory phase of this research programme. The spatial distribution of the modules and projects shows a good coverage of the whole Austrian territory.

Looking at the thematic distribution of the research projects carried out it becomes clear that the main focus of studies is to be found especially in the fields of "Multifunctionality and Use Conflicts" and "Basic Concepts of Safeguarding Biodiversity and Quality of Life", with their close relationship to "Regional and Supraregional Realization". From evaluation of the current situation it appears that perceptions of international collaboration need to be improved and it may be seen that desire for international co-operation has also been explicitly articulated in approximately 40 % of the projects.

Furthermore the project funding structure shows that about 50 % of the projects are funded to a certain extent by federal means. Regarding this again it seems that at an international level – especially as far as European Community funding is concerned – a large black-log still exists in the field of cultural landscape research, and future research projects should aim at intensifying incorporation into international programme and co-operative efforts.

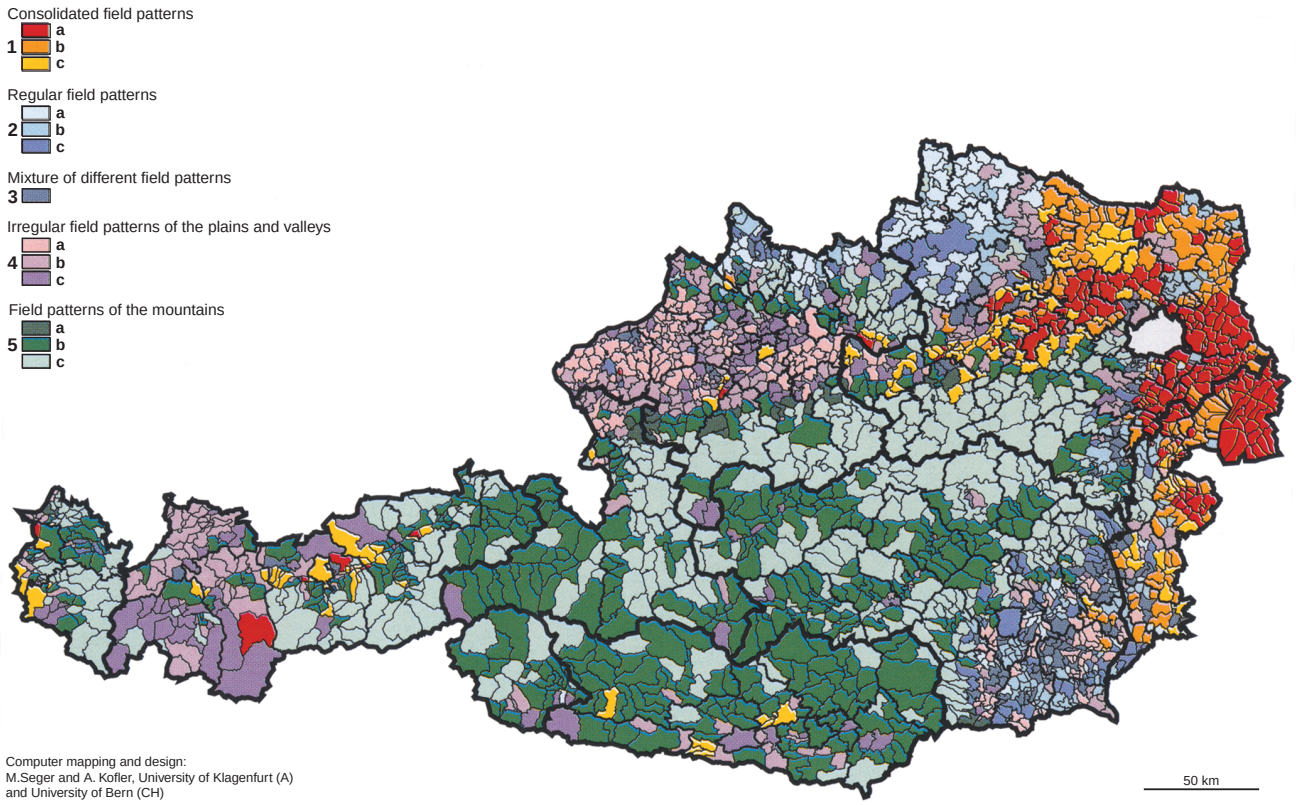
At the University of Klagenfurt an approach on classifying cultural landscapes in Austria was undertaken recently (cf. Seger & Kofler 1998). The size and structure of agricultural plots were treated as important parameters of land use and the formal shaping of cultural landscapes. The data were visualised in thematic maps (see maps A-12 and A-13, page 56). This maps combine data from topographic maps and satellite images (AUSTROMIR project, KFA 1000) which have been analysed by interpretative methods (on the scale 1:50,000). The spatial level on which the research work was carried out are the administrative boundaries of Austria's communes.

In displaying disparities in the size of plots and structure of field patterns, the two maps allow to distinguish – more or less untouched – traditional cultural landscapes with a higher diversity in formal shaping from areas of agrotechnical modernisation, which are much more uniform. As general result one can state a radical modernisation of the types of field patterns due to land consolidation and therefore a drastic change of the cultural landscape on favoured tillage areas. Especially the north-eastern part of Austria, besides parts of the pre-alpine zone and the Burgenland are outstanding as transformed modern agrarian landscapes.

Another approach of mapping landscape structures as a large scale ecological reference investigation system is made in the SINUS programme. SINUS stands for Structural Features of Landscape Ecology as Indicators for Sustainable Land Use, which is runned by common investigations of the Department of Vegetation Ecology and Conservation Biology, University of Vienna, the Institute of Surveying, Remote Sensing and Land Information (University of Agricultural Sciences), the Department of Geography at the University of Klagenfurt and the Konrad Lorenz Institute of Comparative Ecology (Austrian Academy of Sciences).

A manual classification of Landsat-Thematic-Mapper images into landscape structure types was done to describe the sustainability of land use at the level of meso- and makrochores in the scale of 1:200,000. Regional indicators which describe the sustainability of land use at this level are valid for landscapes with comparable land use systems (cultural landscape types).

Map A-12
Types of field patterns and types



Computer mapping and design:
M.Seger and A. Kofler, University of Klagenfurt (A)
and University of Bern (CH)

1 a consolidated parcels instead of furlong field patterns dominating
b partly consolidated parcels besides furlong field patterns
c partly consolidated parcels besides compact block field patterns (with direct access to the farmland) and intermingled fragmented holdings

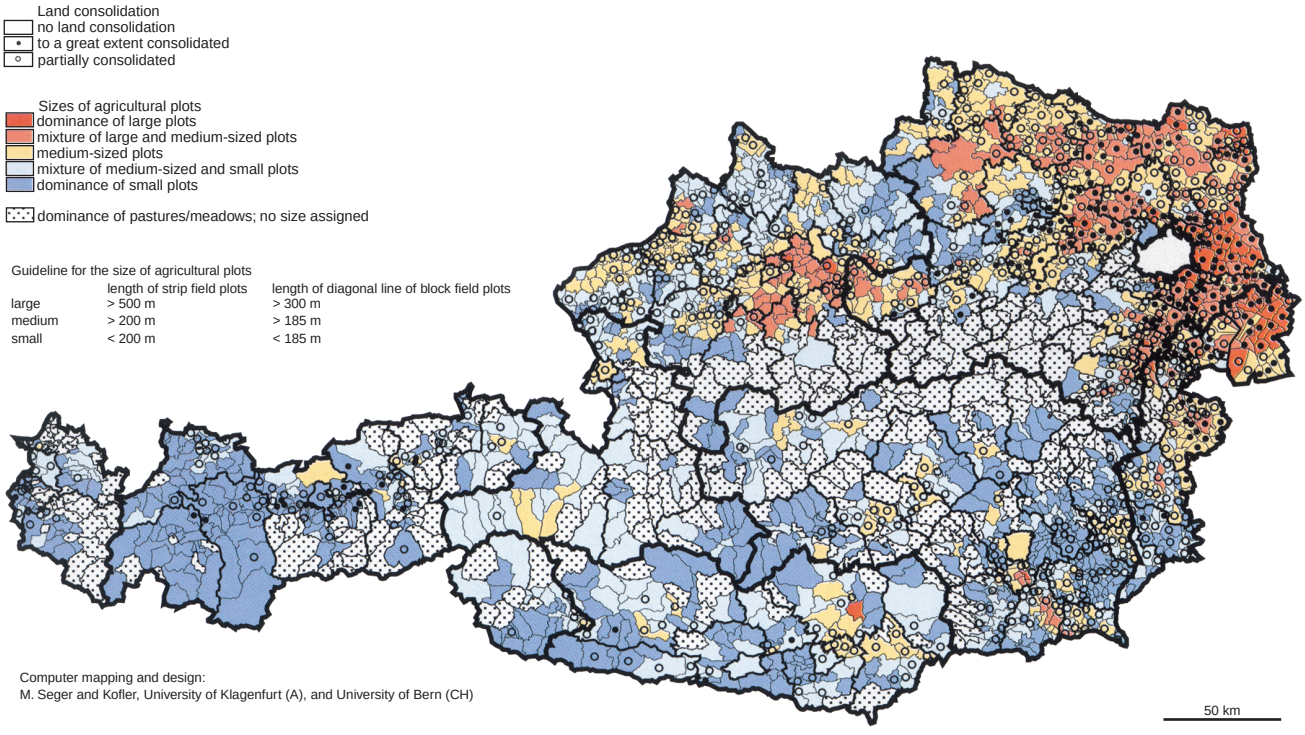
2 a strip field patterns and strip furlong field patterns
b residual and smaller furlong field patterns
c compact block field patterns with small blocks (and direct access to the farmland)

3 block field patterns, strip complexes and furlong field patterns

4 a compact block field patterns (with access to the farmland) with block or strip complexes
b strip field patterns of intermingled fragmented holdings besides few compact block field patterns (with direct access to the farmland)
c strip and block field patterns as well as field patterns of fragmented blocks and strip field patterns of intermingled fragmented holdings

5 a compact block field patterns (with access to the farmland) of the transition zone from mountains to plains, also strip complexes
b compact block field patterns (with direct access to the farmland) of the mountains, in valleys and intra-mountainous bassins, field patterns of fragmented blocks and strip field patterns of intermingled fragmented holdings
c compact block patterns (with direct to the farmland) dominating

Map A-13
Sizes of agricultural plots and land consolidation in Austria: disparities in the size of parcels (communities 1991)



Computer mapping and design:
M. Seger and Kofler, University of Klagenfurt (A), and University of Bern (CH)

Examples are:

- portion and connectedness of built-up areas,
- structure and interconnection of watercourses,
- fragmentation and condition of forests,
- appearance of biodiversity hotspots and special sites and
- dissection of landscapes by traffic lines.

This data base was used as training data for the automatic segmentation and the fuzzy classification performed later on. The polygons derived by this procedure are homogeneous in respect to their:

- landscape structure,
- land cover and
- dominant site conditions.

About 13,000 such individual landscapes have been delineated for the whole Austrian territory and then classified into 42 groups of landscape types (see map A-14). Those types reflect the dominant land use system to a high degree, but also features like geometrisation, fragmentation or dissection. The mentioned attributes are as well relevant for estimating the sustainability of the land use in such regions and therefore used as so called regional indicators of sustainable land use.

Automatic delineation and identification of segments is desirable for the following reasons:

- For larger areas, automatic image analysis is more economic in terms of money and time, in particular also with a view to the shortage of experts for this task.
- The result of automatic image analysis is more homogeneous than a map compiled by subjective visual interpretation.
- The development and tuning of automatic methods may provide insights into the theory of landscape ecology by being forced to a strict formal description of landscape elements and their properties.

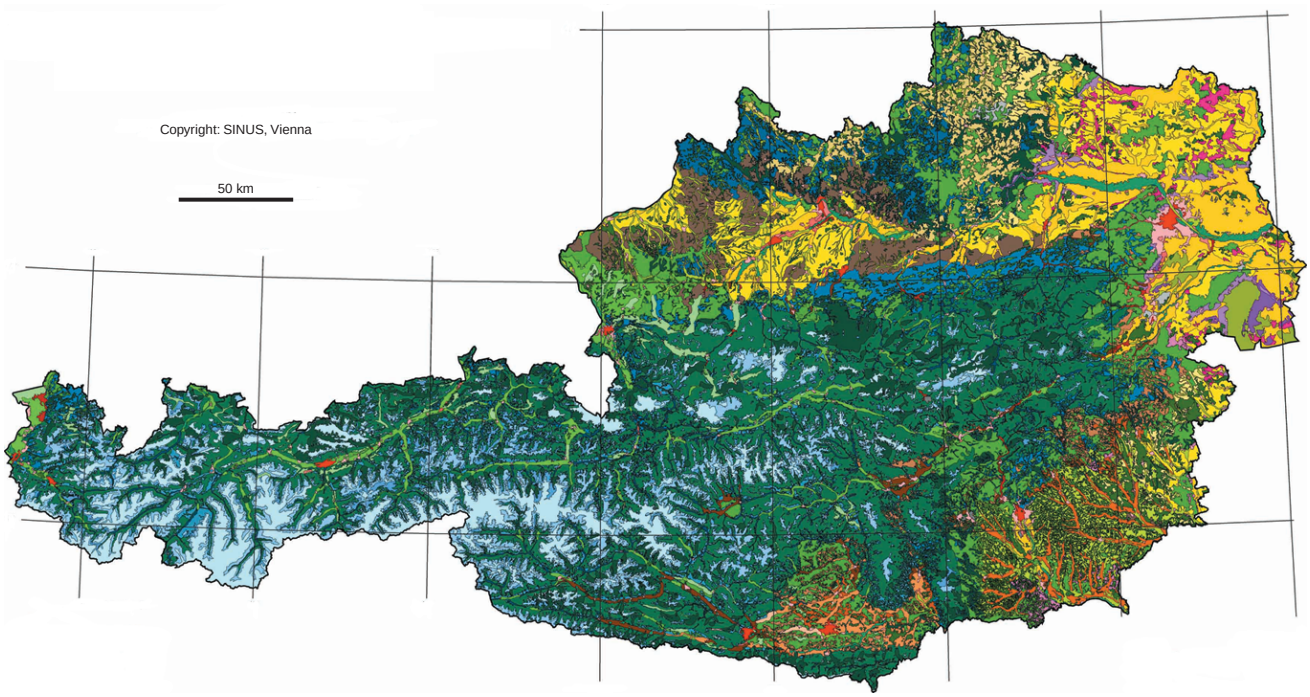
Segmentation in general is the process of partitioning an image into regions (sets of adjacent pixels) having a meaning in the real world. In the procedure chosen in this project for obtaining segments, special emphasis is placed on spectral homogeneity of the segments (indicating identical land cover) and on abrupt and, if present, straight boundaries between the segments.

In any case, segmentation is performed employing a region growing method. The region growing algorithm is applied to the geocoded Landsat scenes of 30m pixel size. In order to include in the segmentation process information on abrupt and, in particular, straight boundaries with subpixel accuracy, the region growing procedure is made to stop at pixels for which a subpixel model has been found. The result of the segmentation process is directly coded in vector format.

Land cover classification: Spectral, textural and shape parameters are determined as attributes of the individual segments. Land cover information on the segments is obtained in a classification step. The Austrian researchers try to use as few land cover classes as absolutely necessary (e.g. one class of urban and built-up land cover only) and to provide additional information with continuous parameters (e.g. vegetation index, describing the percentage of man-made materials and hydrologically impervious area on the one hand and vegetation on the other hand). 12 land cover classes were defined.

One main problem refers to phenological changes of spectral signatures of land cover classes and the fact that in general image data from one acquisition date only are available for this project. Some imprecise class definitions as well as misclassifications result from this lack of multitemporal image data. In this respect, improvements are planned for future work.

Map A-14
Groups of cultural landscape types in Austria



Types of land use	
A	Rocks and glaciers of the alpine and sub-alpine zone
B	Natural grassland and low intensity mountain pastures of the alpine and sub-alpine zone
	Improved pastures of the alpine and sub-alpine zone with high intensity of use
C	Wooded valley slopes of the Alps
	Riverine forests along major rivers
	Wooded gorges and narrow valleys
D	Large islands of forest outside the Alps
	Wooded mountains (Low mountain range)
E	Meadows in inneralpine clearings
	Meadows in alpine narrow valleys
	Meadows in clearings on the peripheral areas of the Alps
	Meadows in highlands outside the Alps
F	Meadows in basins and moraine landscapes of inneralpine and peripheral alpine areas
	Meadows in inneralpine basins and wide valley floors
	Meadows in hilly landscape outside the Alps
	Meadows in fault basins and lake basins outside the Alps
G	Meadows in valleys and low grounds outside the Alps
	Large areas of xerophilous vegetation and rough pastures
	Meadows, fruit trees and fodder crops of the Illyric region
	Meadows in narrow valleys outside the Alps
	Large areas of fallow land
H	Inneralpine valley floors and basins with mixed arable land and meadows
	Mixed arable land, meadows and fodder crops of the hilly landscape outside the Alps
	Pre-alpine clearings with distinctly fodder crops
	Clearings of the peripheral areas of the Alps with mixed arable land and meadows
	Lake basins with fodder crops
	Inneralpine valley floors and basins with distinct fodder crops
	Valley floors and basins outside the Alps with distinct fodder crops
I	Hilly landscape outside the Alps with dominant cereal cultivation
	Basins and valley floors outside the Alps with dominant cereal cultivation
	Clearings outside the Alps with arable land
	Highlands outside the Alps with arable land
J	Viticulture on plains and flat slopes
	Viticulture on steep slopes
K	Mixed arable land and viticulture of the Pannonian area
	Mixed fruit trees, viticulture and fodder crops of the Illyric region
	Agglomeration
	Urban settlements along interregional traffic lines
	Organically evolved industrial and settlement landscape
	Young industrial and settlement landscape
	Discontinuous suburban fabric
	Large areas of open-cast mining and dump sites

A-4 Annex: Data Sources and Acronyms

A-4.1 Bibliography

Aalen, F.H.A., Kevin Whelan & Mattew Stout (eds.) (1997): Atlas of the Irish Rural Landscape. Toronto, Buffalo

Aitchison, John (1995): Cultural Landscapes in Europe: A Geographical Perspective. In: Droste, Bernd von; Harald Plachter & Mechtild Rössler (eds.): Cultural Landscapes of Universal Value – Components of a Global Strategy. Jena, Stuttgart, New York, pp. 272-288

Alalammi, Pentti (ed.) (1999): Finland's Landscapes, and Urban and Rural Milieus. = Atlas of Finland 350. National Land Survey of Finland, Geographical Society of Finland

Antrop, M. (1997): The concept of traditional landscapes as a base for landscape evaluation and planning. The example of Flanders Region. In: Landscape and Urban Planning 38, pp. 105–107

Ausschuss für Raumentwicklung (1999): Europäisches Raumentwicklungskonzept. Auf dem Wege zu einer räumlich ausgewogenen und nachhaltigen Entwicklung der EU

Becker, Hans (1998): Allgemeine Historische Agrargeographie. Stuttgart

Bennett, Graham (ed.) (1996): Cultural landscapes: The conservation challenge in a changing Europe. Institute for European Environmental Policy. London

Bergström, Rolf (1998): European Topic Centre on Land Cover. Annual Topic Update 1997. MDC Sweden.

Bethe, Frans H. (ed.) (1997): Rural Areas and Europe. Process in Rural Land Use and the Effects on Nature and Landscape. The Hague

Bundesministerium für Wissenschaft und Verkehr (ed.) (1998a): Research initiative on cultural (man-made) landscapes. = Forschungsschwerpunkt Kulturlandschaft. Status Report October 1998. Unpublished

Bundesministerium für Wissenschaft und Verkehr (ed.) (1998b): Szenarien der Kulturlandschaft. = Forschungsschwerpunkt Kulturlandschaft 5. Vienna

Bundesministerium für Raumordnung, Bauwesen und Städtebau (ed.) (1995): Principles for a European Spatial Development Policy. Bonn

Burggraaff, Peter & Klaus-Dieter Kleefeld (1998): Historische Kulturlandschaft und Kulturlandschaftselemente. = Angewandte Landschaftsökologie, Vol. 20. Bonn-Bad Godesberg

Council of Europe & Clrae – Congress of Local and Regional Authorities of Europe (1998): Fifth Session (Strasbourg, 26–28 May 1998). The Preliminary Draft European Landscape Convention. Explanatory Memorandum. CG (5) 8, Part II

Council of Europe (1995): Recommendation No. R (95) 9 of the Committee of Ministers to Member States on the integrated conservation of cultural landscapes areas as part of landscape policies. Adopted by the Committee of Ministers on 11 September 1995 at the 543rd meeting of the Ministers' Deputies).

Council of Europe (without year): Council of Europe Award. Campaign "Europe, a common heritage". (Flyer, further information at www.culture. coe.int/ patrimonium)

Council of Europe (without year): Naturopa 86: Landscapes: the setting for our future lives

Denecke, D. (1990): Eingriffe des Menschen in die naturräumliche Landschaftsentwicklung in historischer Zeit: Folgen und erhaltene Relikte. In: Niedersächsisches Umweltministerium (ed.) (1990) Natur und Geschichte. Naturwissenschaftliche und historische Beiträge zu einer ökologischen Grundbildung, pp. 199–206, Hannover

Deutscher Rat für Landespflege (1986): Kriterien für die Auswahl von Landschaften nationaler Bedeutung. = Schriftenreihe des Deutschen Rates für Landespflege, Vol. 50

Deutscher Verband für Landschaftspflege (Dvl) (ed.) (1996): Modelle zukunftsfähigen Wirtschaftens. = Tagungsband Deutscher Landschaftspflegetag 1996 vom 6. bis 7. September 1996 in Bad Münstereifel. Ansbach

Emanuelsson, Urban (1988): A Model for Describing the Development of the Cultural Landscape. In: Birks, Hilary H. et al. (1988): The Cultural Landscape – Past, Present and Future. Cambridge, pp. 111–121

Europäische Kommission (1999): Mitteilung der Kommission an den Rat, das Europäische Parlament, den Wirtschafts- und Sozialausschuss und den Ausschuss der Regionen. Wegweiser zur nachhaltigen Landwirtschaft. Brussels

European Commission (ed.) (1997): European Spatial Development Perspective. First official draft. Presented at the informal meeting of Ministers responsible for Spatial Planning of the member states of the European Union. Noordwijk, 9 and 10 June 1997. Luxembourg

European Commission (ed.) (1998): European Spatial Development Perspective (ESDP). Complete draft. Meeting of Ministers responsible for Spatial planning of the member states of the European Union. Glasgow, 8 June 1998. Luxembourg

European Centre for Nature Conservation (1997): Action Theme 4: European Landscapes. Draft Action Plan for European Landscapes. 1997. Tilburg (unpublished)

European Centre for Nature Conservation (1998): Pan-European Biological and Landscape Diversity Strategy Summary. Internet: www.strategyguide.org/summary.html on 23.03.1999, last modification 24 July 1998

European Environment Agency (1998): Europe's Environment: The Second Assessment. Luxembourg and Oxford

Federal Ministry of Science and Transport (ed.) (1997): Research Focus – Cultural Landscape Research. Vienna

Fowler, Peter (1996): Cultural landscapes of Britain. In: Unesco (1996): Reader for the Expert Meeting European Cultural Landscapes of Outstanding Universal Value. Vienna

Ganzert, C. (1995): Nature conservation in agricultural landscapes. In: Bellan, D.; G. Bonin & C. Emig (eds.) (1995): Functioning and dynamics of natural and perturbed ecosystems. London, pp. 642–659

Goriup, Paul (1998): The Pan-European Biological and Landscape Diversity Strategy: integration of ecological agriculture and grassland conservation. In: Parks, Vol. 8/3, pp 37–46

Green, B.H. (1996): Protecting European Cultural Landscapes. In: Unesco (1996): Reader for the Expert Meeting European Cultural Landscapes of Outstanding Universal Value. Vienna

Haber, Wolfgang (1995): Concept, Origin and Meaning of "Landscape". In: Droste, Bernd von; Harald Plachter & Mechtild Rössler (eds.): Cultural Landscapes of Universal Value –Components of a Global Strategy. Jena, Stuttgart, New York, pp. 38–41

Institute for European Environmental Policy (Ieep) & Lei-Dlo – Agricultural Economics Research Institute (1996): Farming at the margins. Abandonment or redeployment of agricultural land in Europe. London, The Hague

Institute for European Environmental Policy (1995): The Nature of Farming. Low Intensity Farming Systems in Nine European Countries. London

International Union for Conservation of Nature and Natural Resources (1978): Some outstanding landscapes. Morges

Jacques, David (1995): The importance of historic cultural landscapes. In: Schriftenreihe des Deutschen Rates für Landespflege, Vol. 66, pp. 42–51

Jessel, Beate (1995): Dimensionen des Landschaftsbegriffs. In: ANL – Bayerische Akademie für Naturschutz und Landschaftspflege (ed.): Vision Landschaft 2020 – Von der historischen Kulturlandschaft zur Landschaft von morgen. = Laufener Seminarbeiträge, Vol. 4, pp. 7–10. Laufen/Salzach

Job, Hubert (1999): Der Wandel der historischen Kulturlandschaft und sein Stellenwert in der Raumordnung. Eine historisch-, aktual- und prognostisch-geographische Betrachtung traditioneller Weinbau-Steillagen und ihres bestimmenden Strukturmerkmals Reb-terrasse, diskutiert am Beispiel rheinland-pfälzischer Weinbaulandschaften. = Forschungen zur deutschen Landeskunde, Vol. 248. Flensburg

Job, Hubert; Gerhard Stiens & Doris Pick (1999): Zur planerischen Instrumentierung des Freiraum – und Kulturlandschaftsschutzes. = Informationen zur Raumentwicklung (IzR), Vol. 26, 5/6, pp. 399–416

Job, Hubert, D. Metzler, S. Weizenegger (2000): Strategien zur Sicherung des europäischen Natur- und Kulturerbes – die EUREK-Sicht. = Informationen zur Raumentwicklung (IzR), Vol. 3/4. 2000, pp. 143–155

Jongman, R.H.G. & R.G.H. Bunce (1999): Landscape classification, scales and (bio)diversity in Europe (unpublished)

Kulturlandschaft. Journal for applied historical geography

Küster, Hansjörg (1999): Geschichte der Landschaft in Mitteleuropa: Von der Eiszeit bis zur Gegenwart. München

Meeus, Jens H.A. (1995): Pan-European landscapes. In: Landscape and Urban Planning 31, pp. 57–79

Meeus, Jens H.A., M.P. Wijermans & M.J. Vroom (1990): Agricultural Landscapes in Europe and their Transformation. In: Landscape and Urban Planning 18, pp. 289–352

Milanova, Elena V. & Andrey V. Kushlin (eds.) (1993): World Map of present-day landscapes: an explanatory note. Moscow

Ministerium für Raumordnung Luxemburg (ed.) (1997): Konzept zur Errichtung eines „Netzwerk Europäisches Raumplanungsobservatorium" (NERO). Echternach

Ministry of Housing, Physical Planning and Environment (mhppe) (ed.) (1989): Small-scale landscape in a large-scale Europe. Spatial Reconnaissances 1989. The Hague

Müller, G. (1977): Zur Geschichte des Wortes Landschaft. In: Hartlieb von wallthor, Alfred (ed.) (1977): Landschaft als interdisziplinäres Forschungsproblem. Münster and Aschendorf, pp. 4–13

Norton, William (1989): Explorations in the understanding of landscape: a cultural geography. = Contributions in sociology. New York, Westport and London

Ott, Erich (ed.) (1997): Zukunft der Kulturlandschaften: Aufgaben und Konzepte nachhaltiger regionaler Entwicklungen. = IKU-series „Kommune und Umwelt", Vol. 5. Frankfurt/M.

Plachter, Harald (1996): Ecological Aspects of Central European Cultural Landscapes. In: Unesco (1996): Reader for the Expert Meeting European Cultural Landscapes of Outstanding Universal Value. Paris (unpublished)

Poudevigne, Isabelle et al. (1997): Dynamics of rural landscapes and their main driving factors: A case study in the Seine Valley, Normandy, France. In: Landscape and Urban Planning, 38, pp. 93–103

Pregill, Philip & Nancy Volkman (1993): Landscapes in History. Design and planning in the western tradition. New York

Rössler, Mechtild (1995): UNESCO and Cultural Landscape Protection. In: Droste, Bernd von; Harald Plachter and Mechtild Rössler (eds.): Cultural Landscapes or Universal Value Components of a Global Strategy. Jena, Stuttgart, New York, pp. 42–49

Schenk, W.; K. Fehn & D. Denecke (ed.) (1997): Kulturlandschaftspflege: Beiträge der Geographie zur räumlichen Planung. Berlin and Stuttgart

Schenk, Winfried (1997a): Wie man „wertvolle Landschaften" macht – Geographische Kritik an einer Karte der „30 Landschaften Europas" und am zugehörigen Kapitel in "Europe's Environment – The Dobříš Assessment." In: Kulturlandschaft 7/1, pp. 33–37

Schenk, Winfried (1997b): Kulturlandschaftliche Vielfalt als Entwicklungsfaktor im Europa der Regionen. In: Boesler, K.A. & E. Ehlers (ed.) (1997): Deutschland und Europa. Historische, politische und geographische Aspekte. Festschrift zum 51. Deutschen Geographentag Bonn 1997: „Europa in einer Welt im Wandel". = Colloquium Geographicum, Vol. 24, Bonn, pp. 209–229

Scherer-Hall, Richard (1997): Die historische Kulturlandschaft als in der Raumplanung handhabbares Objekt. In: Kleefeld, Klaus-Dieter & Peter Burggraaff (eds.) (1997): Perspektiven der historischen Geographie. Siedlung – Kulturlandschaft – Umwelt in Mitteleuropa. Bonn, pp. 363–377

Seger, Martin & Andrea Kofler (1998): Flurgefüge- und Relieftypen Österreichs – Merkmale der Kulturlandschaft nach Gemeinden. = Mitteilungen der Österreichischen Geographischen Gesellschaft, Vol. 140, pp. 5–72

Stanners, David & Philippe Bourdeau (eds.) (1995): Europe's Environment – The Dobríš Assessment. A report of the European Environment Agency, Copenhagen

Steinlin, Hansjörg (1989): Die Entwicklung der Kulturlandschaft im ländlichen Raum. In: Arbeitsgemeinschaft Länd-licher Raum im Regierungsbezirk Tübin-gen (Hrsg.): Wandel der Landschaft – wohin? = Beiträge zu den Problemen des ländlichen Raumes, Vol. 17, pp. 4–15. Tübingen

The World Conservation Union (1994): Richtlinien für Management-Kategorien von Schutzgebieten. Nationalparkkommission mit Unterstützung des WCMC, IUCN, Gland and Cambridge, FÖNAD, Grafenau

The World Conservation Union (1995): Parks for Life: actions for protected areas in Europe. Gland

United Nations Economic Commission for Europe (1998): Fourth Ministerial Conference Environment for Europe. Åarhus, Denmark 23–25 June 1998. Declaration by the Ministers of Environment of the region of the United Nations Economic Commission for Europe

United Nations Educational, Scientific and Cultural Organisation (1995): Operational Guidelines for the Implementation of the World Heritage Convention. Paris

United Nations Educational, Scientific and Cultural Organisation (1998): Sites inscribed on the World Heritage List. Brief Descriptions. Paris

United Nations Educational, Scientific and Cultural Organisation (1999): Richtlinien für die Durchführung des Übereinkommens zum Schutz des Natur- und Kulturerbes der Welt

Vervloet, Jelier & Theo Spek (1998): Mapping the European cultural landscape (1:10 million): possibilities and challenges. Script for the presentation for the "Workshop Sustainable Landscapes and Vegetation changes" in December 1998 in Stockholm

Vos, Willem (1999): Trends in European landscape development. Script for a presentation on 6th September 1999 at the European Summer School for Sustainable Regional Development in Witzenhausen

Wascher, Dirk M.; Marta Múgica & Hubert Gulinck (1999): Establishing Targets to Assess Agricultural Impacts on European Landscapes. In: Brouwer, Floor M. & Bob Crabtree (eds.) (1999): Environmental Indicators and Agricultural Policy, pp. 73–87. Wallingford, New York

A-4.2 Internet Sources

http://www.klf.at

http://www.cloc.org/conference presentation/sinus

http://www.culture.coe.int/patrimonium

http://www.strategyguide.org/summary.html

A-4.3 Acronyms

CE	Council of Europe
CLRAE	Congress of Local and Regional Authorities of the Council of Europe
CORINE	Co-ordination of Information on the Environment
DocTer	Institute for Environmental Studies
ECNC	European Centre for Nature Conservation
ECU	European Currency Unit
EEA	European Environment Agency
ERDF	European Regional Development Fund
ESDP	European Spatial Development Perspective
ESPON	European Spatial Planning Observatory Network
EU	European Union
EUROSTAT	Statistical Office of the European Communities
FADN	Farm Accountancy Data Network
FAO	United Nations Food and Agriculture Organisation
FFH	Flora, Fauna Habitat Directive
FSS	Farm Structure Survey (Eurofarm) of EUROSTAT
GIS	Geographical Information System
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICOMOS	International Council on Monuments and Sites
ISPRA	Joint Research Centre of the EU
IUCN	The World Conservation Union (formerly: International Union for the Conservation of Nature and Natural Resources)
KLF	Cultural Landscape Research Programme Austria *Kulturlandschafts-forschungsprogramm*
LEADER	EU Community Initiative for rural development *Liaison Entre Actions de Développement de l'Economie Rurale*
LEI	Agricultural Economics Research Institute, The Hague *Landbouw Economisch Instituut*
MAB	Man and Biosphere (UNESCO programme)
N	Nitrogen
NFP	National Focal Point
NGO	Non-Governmental Organisation
NUTS	Nomenclature of Territorial Units for Statistics *Nomenclature des Unités Territoriales Statistique*
OECD	Organisation for Economic Co-operation and Development
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
REGIO	Regional Statistics of Eurostat
RPD	Dutch National Spatial Planning Agency, The Hague *Rijksplanologische Dienst*
SINUS	Structural Features of Landscape Ecology as Indicators for Sustainable Landuse

SPESP	Study Programme on European Spatial Planning
StBA	German Federal Office for Statistics *Statistisches Bundesamt*
UAA	Utilised Agricultural Area
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WCMC	World Conservation Monitoring Centre
WHC	World Heritage Convention (UNESCO)

B-1 The Measurement of the Cultural Space: Problems and Methodological Issues

B-1.1 Measurement and Description of the "Cultural Space"

The discussion of the NFPs that took place in Nijmegen (14-16 June 1999) contributed to identify some general problems with the construction of indicators for the Spatial Programme, and some of the specific issues concerning the group on cultural assets.

The analysis of selected portions of the territory through indicators has been agreed upon by many groups as a useful tool to test the feasibility and significance of the proposed list of indicators. Moreover, a "political" reading through different layers of thematic indicators could enable researchers to express an integral view of policy areas at the European scale. Pilot studies constitute natural areas for the implementation of "transversal research" projects for different groups on the horizontal level as well. It has been suggested that each group tests the use of indicators through the study of a number of pilot (to be chosen in accordance with other groups, so that at least some of them are carried on by more than one group), and in a second stage some of those cases are selected by Nordregio as "global testing grounds" for the whole project. As a matter of fact, the integration of measures at the local scale turned out to be feasible only *within* the working group.

As expected, the work group dealing with cultural assets presents a number of peculiar problems and characteristics. Therefore, it also demands to be dealt with different instruments, and it arises different – maybe lower – expectations. The study area regarding the measurement of the "significance" and "endangerment" of the built cultural heritage presents a number of peculiar problems. In the following section these are being briefly described.

Absence of a clear-cut, universal definition of heritage. It has been mentioned above how, contrary to the theme of other groups participating to the ESDP programme, the issue 1.7 presents a basic definitional problem. There is no European-wide recognition of what cultural assets actually are. Though official documents and declarations push decision-makers to adopt the widest possible notion of heritage, it is very difficult to relate this broad range of assets with the issue of conservation. The conveniently restricted notion of "traditional" cultural heritage adopted by this group, as described above, has indeed proven to be the most interesting for spatial planning purposes.

Unavailability of data. Incomplete listings of sites and cultural assets and great non-homogeneity in the listing techniques and scope between countries are the rule. The standard of heritage description is low. Only a few regions or countries have adopted standard methodologies for coding and mapping the heritage – or portions of it – on the territory. The data on tourism activity are singularly underdeveloped and non-homogeneous. The data on the management of cultural assets are to be found only at the local level in specialised studies, and seldom in a codified format.

Scale of measurement and the relation with cultural landscape. The cultural assets differ widely in scale: a single remain or site cannot be compared significantly with a whole city of art for planning purposes. The artificial distinction between a "punctual" heritage and its spatial dimension has been discussed in the document presented at the Rome meeting. The choice has been done to measure the spatial effects of the presence of the heritage on the territory, measuring at a higher detail the interconnection between "points" and "areas" (in the case studies) to provide an example of a more complete level of analysis. This approach relies on an *ex-ante* selection of the attractions. In spite of this limitation, this approach is effective in capturing diversity. Therefore, it is more fruitful to the aims of the projects, which is that of identifying "areas of crisis" and supporting the implementation of a "new rural-urban partnership for Europe".

Significance and use of the indicators. Due to the ill definition of heritage and the relative unavailability of data, the group Cultural Assets has an "additional degree of freedom" in the proposal of a set of indicators. Not only it proposes a set of measures with sufficient descriptive power to represent the problem of a sustainable use of the heritage, but it also proposes a methodology for the collection of interesting information and data that are not generally taken into account. This topic will be treated in the conclusions.

The mode and quality of the use of the heritage are crucial for its conservation in the long term. Since tourism is its main source of use, the significance and endangering of the cultural heritage – the two dimensions on which this study is centred – have to be measured placing a great attention to the power of attraction, on one side, and on pressure derived from tourist activities, on the other. While the former dimension requires an accurate listing of heritage of different kinds and periods, which is not the main focus of this research, the latter issue is at the basis of the present analysis.

It is believed that a harmonious relationship between the heritage and its main infrastructure of consumption and valorisation, tourism, leads to a sustainable use of the cultural assets. On the other hand, an unbalance in this relation – an excessive or excessively frictional use of the heritage, or an incapacity to attract the potential number of visitors – is a threat to the conservation and management of the monuments or sites.

To benchmark the tourist potential of the area, a means to measure the attraction power of a site, or better the concentration of cultural assets in an area, is required. An area with a high number of assets is *per se* an attractive area from the tourist point of view, both for the high probability of receiving visitors, both for the advantage of concentration which makes it possible to visit more within a single journey. Secondly, at equal levels of tourist pressure, an area with a high relative concentration of assets is an area with different (and bigger) problems than one where the heritage is dispersed. Hence the almost exclusively "urban" dimension of the problems related with the sustainable use of the heritage. Therefore, planning for a sustainable use of the heritage, to be achieved through a consistent management strategy, requires to analysing these measures in conjunction. Thirdly, the tourist use of the urban space causes a certain extent of displacement of residential-led activities. To measure the extent of this displacement and compare it with the extent of tourist pressure may give an indication of the "fragility" of the system of cultural sites with respect to its tourist use.

A list of indicators representing these three dimensions of analysis, plus a tentative qualitative assessment of existing management strategies, should be a sufficient input for spatial planners to increase their awareness of problems related with heritage management and enrich their toolbox for policy-making.

According to the above points, the Italian team of the work group has reduced the list of indicators presented at the Nijmegen meeting to a total number of 17 indicators, which have been sent to the NFP's for revision and discussion. This survey resulted in a restricted choice of 3 synthetic indicators that have been measured on the European scale and that will be described in the next section.

For each indicator, the "interesting" scale of measurement is given. In a second stage, some pilot cases of regional relevance will be selected to map the space at a more accurate level of significance, for example taking into account "management" and "capacity" issues.

B-1.2 Proposed List of Indicators

According to the preparatory document presented at the Stockholm meeting, the following categories of indicators have been considered:

Significance. These indicators describe the physical, geographical and economic characteristics of cultural sites and heritage.

Endangerment. These indicators describe the detachment of the fruition of the heritage from an "optimal" situation, with a correspondent danger for the physical-cultural-symbolic endurance of the area in which it is located or for the chances of preservation and restoration of the resources themselves. They require the assessment of optimal values and divergences with quantitative and/or qualitative methods.

As explained in the previous section, a further subdivision regards the scale of observation. Broadly, punctual observations, regarding the descriptive characteristics of the cultural heritage, correspond to significance indicators, while spatial observations have to do with impacts and refer to the endangerment indicators. From those two result the response or management indicators. They can only be suggested with a transversal reading of information with other groups, in particular the one dealing with spatial integration.

Spatial*:* provincial territory (NUTS 3)

Punctual*:* isolated monuments/ buildings and archaeological sites

This scale of observation represents an acceptable balance between the degree of detail of the analysis and likeliness of data availability. The information relative to provinces and cultural landscapes, two different segmentations of the space, will be used complementarily to have a complete representation of the spatial phenomena associated with the fruition of cultural assets.

To tackle the problem of data availability on the European level, it has been decided to diffuse questionnaires among the NFPs to solicit and collect information.

The indicators proposed therefore were the following:

Indicators of significance

a. Concentration of cultural sites/ monuments
b. Stratification

Indicators of endangerment

c. Tourist pressure on heritage city / site / monument
d. "Touristicity" of the heritage city/ site / monument
e. Extension of tourist region
f. Conflict level in the use of the land (general)
g. Conflict level in the use of public transport
h. Tourist prices
i. Presence of infrastructures nearby the heritage city / cultural site / monument
j. Presence of productive structures nearby the heritage city / cultural site / monument
k. Crime rate
l. Carrying capacity (socio-economic)

Indicators of 02management

m. Management / ownership regime
n. Decision-making regime
o. Controls on the development and existence of regional planning regarding heritage cities / sites / monuments
p. Co-ordination in management of cultural assets
q. Community involvement

While indicators a.-b. respond to a standard methodology of mapping the cultural space according to the complexity of the environment, the choice and proposition of indicators c.-l. and m.-q. respond to more general imperatives of measurement of socio-economic conflicts arising from the tourist use of the heritage which were presented in the Nijmegen meeting.

Such list has been diffused among the National Focal Points network, to gather comments and useful suggestions about the practical possibility to quantify the indicators proposed.

For this task, a scheme for the evaluation and assessment of sustainability indicators of the World Tourism Organisation has been adopted (Consulting and Audit Canada, What managers need to know: a practical guide to the development and use of

indicators of sustainable tourism, prepared for the WTO, 1995). The WTO has prepared a ranking system that enables managers and researchers to choose the most adequate among a set of suggested indicators. In the following table an example of this approach is given. The scores are "high", "average" and "low" (H-A-L) according to the extent to which the indicator responds to the following requirements:

- availability of the data
- credibility and ease of comprehension of the indicator
- possibility of extrapolating time trends and of comparing different territorial contexts
- significance in terms of long-term sustainability
- possibility to define "threshold values" (a theoretic maximum value not to be overcome) or "benchmarks" (indices to be used for time or space comparisons)

The National Focal Points have been asked to assess the adequacy of the proposed indicators according to this technique, assigning a grade (H-A-L) for each indicator and for each of the criteria suggested above. It was also asked whether the data are easily available or already present in the working group Cultural Assets, and if in digital form. Moreover, some space is left to suggest further indicators.

In the second part of the questionnaire, supplementary information were asked about data on the national legislation systems and preservation measures, especially the type of protected areas, their aims and their formal obligation, which will differ considerably from country to country, and data which would be important for the identification of relevant case studies and their evaluation as cultural sites (only available on local and regional level).

B-1.3 Results of Questionnaire among the NFPs*

The fourteen reactions received to the questionnaires clarify one more that no standard methodology and procedure exists at the European scale for the collection of data describing the significance and endangering of the cultural heritage. Each country relies – if it does – to some ad hoc methodology, with the result that the European cultural space looks very fragmented and non-continuous. As an example of the difference in approaches between countries, the Dutch NFP arises the problem of the delegation in the management of the cultural assets: "Most of the questions were hard to answer, mostly because the way of managing and preserving cultural assets in the Netherlands seems to be much more decentralised then the questionnaire implies. Within a framework of laws and strategies, every problem is tackled in its own way, bases on its own properties".

In general, questions are raised about the availability of data ("The availability of data for the proposed indicators is rather low. This is due to the Nordic background" (Finnish NFP); "The availability of digital data in Luxembourg as regards the cultural context is rather bad, same holds for non digital data" (Luxembourg NFP); "No comprehensive statistics concerning the environment for these monuments exists, only a rough summary of primary data" (Danish NFP); "Unrealistic expectations concerning the availability of data" (German NFP). Other comments regard the credibility and significance of data collection ("The mixture of quantitative and qualitative indicators in the questionnaire, and the lack of a clear differentiation of the analysis scales depending on the different issues, together with the mixture of heterogeneous issues, makes it difficult to fill in and raises doubts about the effectiveness of the work done" (Spain NFP); "Missing homogeneity of indicators and aspects of valuation; mixing of not compatible aspects or of those that cannot be answered at the same time (e.g. time trends – territorial context; threshold values – benchmarks)" (German NFP).

Some of the criticism, then, is directed to the definition of the indicators ("Some indicators are of too high complexity (e.g.

* The questionaire with the answers of the German NFP is included in this volume (p. 89 ff.).

socio-economic carrying capacity) and at the same time unprecisely operationalised (e.g. number of actors)“ (German NFP).

Many NFPs provide an exhaustive list of studies, cases and references for the calculation of the indicators proposed, which have been utilised to choose relevant pilot studies to be implemented in the next stage of the research.

A work of recapitulation of the responses and ranking of the indicators according to the scores has been done. From this observation, several issues are made evident.

First of all, the general judgement about all 5 criteria submitted is quite low (about 35% of the maximum possible score), with no significant variations between criteria. Since the highest scores have been given by countries which also went through a significant effort of providing case studies and references, a reflection should be made on whether unsatisfactory results depend from the scarce knowledge of the topic or on an actual ill-definition of the topic under study.

Secondly, a number of NFPs did not comment or commented only partially on the indicators, with the outcome that the ranking is biased on positive judgements which were explicitly expressed.

Thirdly, the indicators which receive more favourable scores are the ones on which a methodology of data collection already exists, or which are immediately clear in their significance, while indicators which are clearly difficult to calculate or appear less clear in their importance, receive poorer judgements altogether.

Indicators a, c, d (henceforth: 1, 2, 3) have been computed at Europe-15 level, even if some problems have to be solved regarding the collection and harmonisation of the data. The choice of three indicators to calculate at the European level reflects the expectations of the NFPs, but it also turns out to be particularly adequate for the purpose of the research. These indicators provide a ready example of mapping of tourism pressure on the heritage at the European scale.

Table B-1
Scores received by the indicators from 11 National Focal Points

Ranking (weighted)	Indicator	Total importance of indicator (non-weighted)	Total importance of indicator (weighted)
1	Concentration of cultural sites / monuments	110	182
2	Tourists pressure on heritage city / site / monument	92	153
3	“Touristicity“ of the heritage city / site /monument	87	141
4	Stratification	79	134.5
5	Controls on the development and existence of regional planning regarding heritage cities / sites / monuments	79	128
6	Presence of infrastructures nearby the heritage city / cultural site / monument	76	126
7	Management / ownership regime	70	118
8	Presence of productive structures nearby the heritage city / cultural site / monument	69	115
9	Tourist prices	60.5	99
10	Decision-making regime	58	99
11	Co-ordination in management of cultural assets	55	92
12	Conflict level in the use of the land (general)	53	88
13	Community involvement	52	87
14	Extension of tourist region	49.5	82
15	Conflict level in the use of public transport	47	75
16	Carrying capacity (socio-economic)	45	74
17	Crime rate	42	70

* The Finnish NFP provided separate responses for the archaeological sites and the built/urban heritage
** The scores have been calculated assigning a double weight to the ciriteria “availability of data“, “credibility“ and “significance“

B-2 Measurement of Indicators for "Sustainable Use of the Built Heritage"

B-2.1 Presentation of Indicators and Results for Heritage Cities, Cultural Sites and Monuments

B-2.1.1 Three indicators of significance and endangerment of the cultural heritage in Europe

As mentioned in the previous chapter, data collection for the measurement of the significance and the endangering of the built cultural heritage shows a number of peculiar problems. As an example, an Europe-wide inventory of cultural assets that was set up in 1996 for the informal meeting of the Ministers held in Venice, showed that the differences in the approach used by the various different member countries may lead to questionable results. Several countries were definitely over-represented (Denmark for example) while others were under-represented (like Spain and Italy, for instance). Due to the lack of a comprehensive, homogeneous, European-wide official list of cultural assets, it has been decided to obtain a new complete listing of registered heritage cities, cultural sites and monuments from a set of tourist guides – one for each country – of the TCI (Italian Touring Club). The choice of TCI guides is due to the fact that they made it easier to relate each site to his proper territorial collocation according to the NUTS subdivision. The guides were issued in the early eighties, except for Germany, for which a guide of 1994 has been used to tackle the problem of former GDR.

First of all, the cities and sites that show a large number of monuments have been listed. In doing this we have considered the cities, sites and monuments that scored two stars – that stand for "very attractive or historically and culturally significant" – in the TCI guides. Secondly, the cities and sites that the guides highlight because of the presence of built cultural heritage have been considered. To avoid treating heritage cities in the same way as single monuments and sites, the decision has been taken to produce a weighed list. A weight of 3 has been assigned to heritage cities of main importance (such as Bruges, Paris, Venice, Rome, London, Berlin, Munich, Madrid, Barcelona, Athens, etc.). A weight of 2 has been assigned to interesting cities and sites with either a number of almost 10 mentioned monuments or only one monument, but of outstanding importance ("stars" referred to single monuments as well, meaning "very interesting or significant" were considered. Among these: Salzburg, Pisa, Perugia, Volterra, Nice, Versailles, Stonehenge, adrian's Wall etc.). A unit weight has been assigned to other relatively less important sites (single archaeological sites as castles, cathedrals, abbeys, remains etc.). The maps B-1 and B-2 have been obtained from the weighed list.

If the lists so created are compared with the 1996 inventory, significant differences emerge. In general, almost each country score better in our absolute list – especially Italy, Germany and UK –, while the few country that score less, i.e. Spain and France, regain their relative importance in the weighed list.

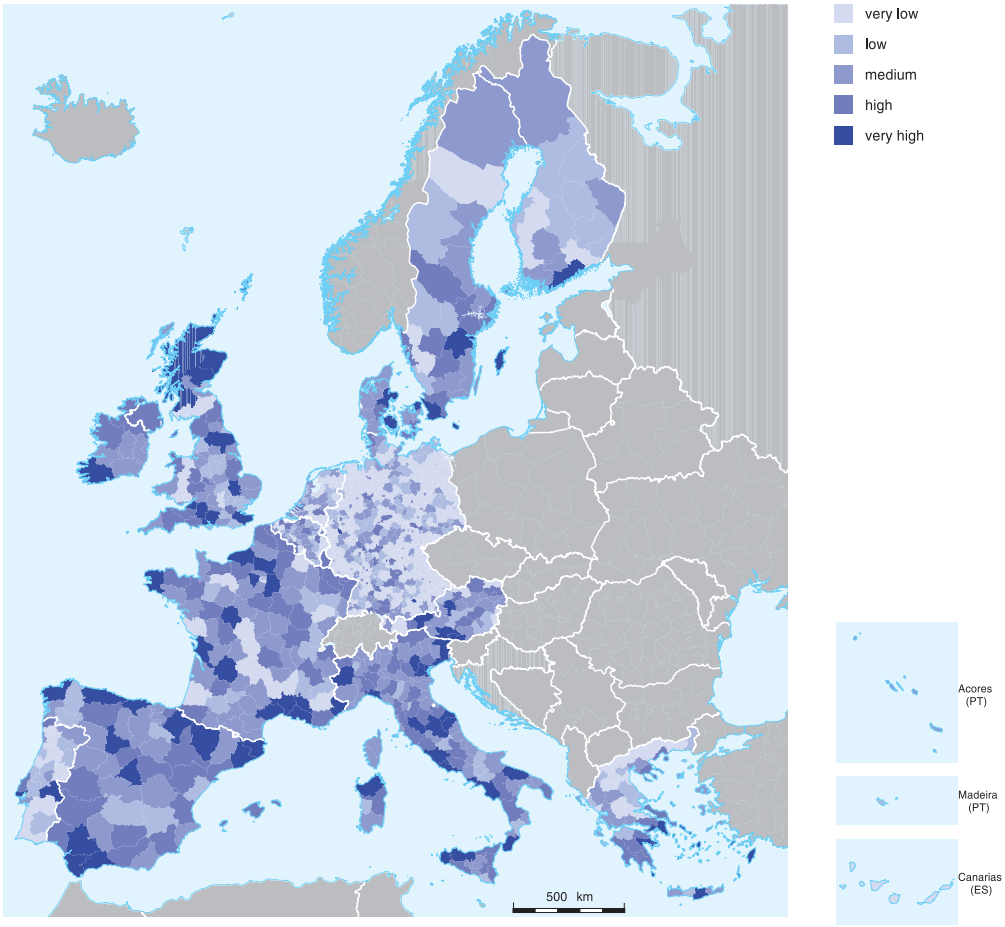
The other data on population and tourism pressure were taken from the EUROSTAT Regio database.

The following three indicators were calculated and have been represented in maps.

Indicator 1:
Presence (1a) and concentration (1b) of cultural sites

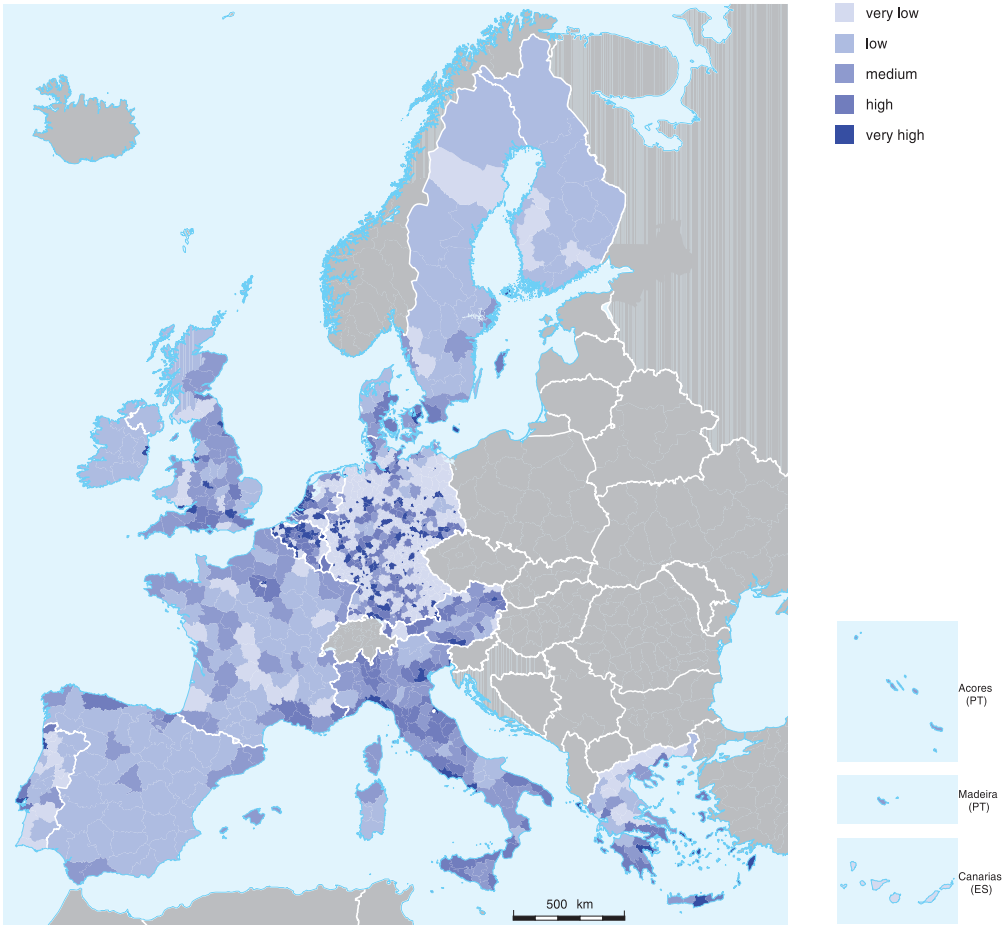
Formula: absolute and relative (assets per square km) number of registered monuments/cultural sites in a NUTS area.

Indicator 1a is an absolute measure of the cultural richness of a region. It measures the potential attractiveness on a site, and therefore it is logically related with the significance of the supply of cultural assets. In relative terms (Indicator 1b), the density of the assets on the territory may provide useful insights in the spatial organisation of the heritage. These two measures can be treated as two distinct indicators for the diversity of information they provide.



Map B-1
Presence of cultural sites

Data source: Italian Touring Club, own computations



Map B-2
Concentration of cultural sites

Data source: Italian Touring Club, own computations

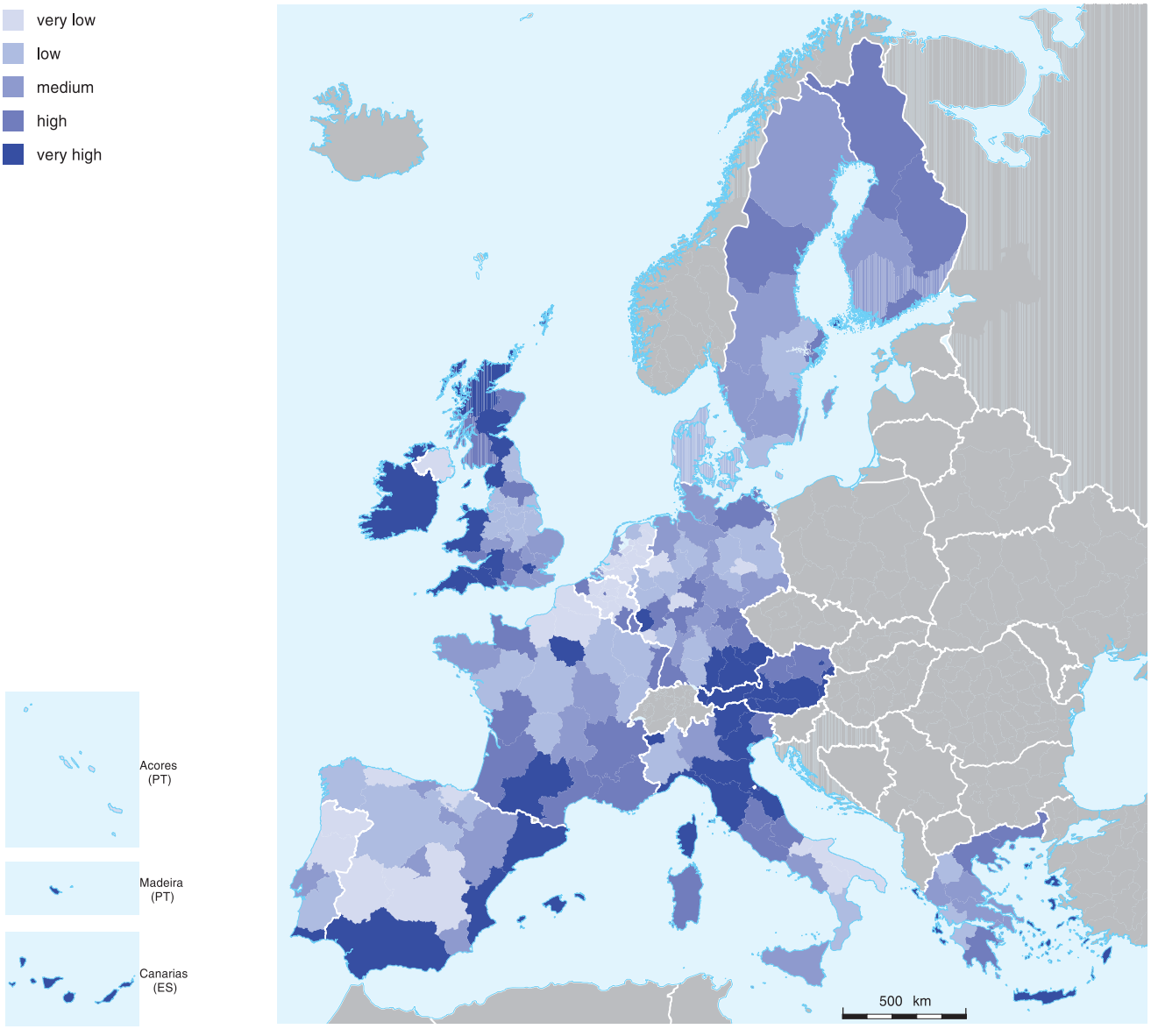
Indicator 2:
Use pressure on cultural sites

Formula: ratio of yearly tourist stays on total resident population in NUTS area

Data: 1997 except FR, BE – 1995; NL – 1994. Data on UK available on NUTS version 7, not linkable to the GISCO coverage.

Indicator 2 measures the effective pressure on a site. With respect to Indicator 1a, which is related to the mass of supply, this one is closely connected with the demand side for the use of cultural assets. Given the relevance of tourism as means of using the heritage, data on tourism stays in the area approximate sufficiently well the actual level of pressure.

Map B-3
Use pressure on cultural sites



Data source: EUROSTAT, own computations

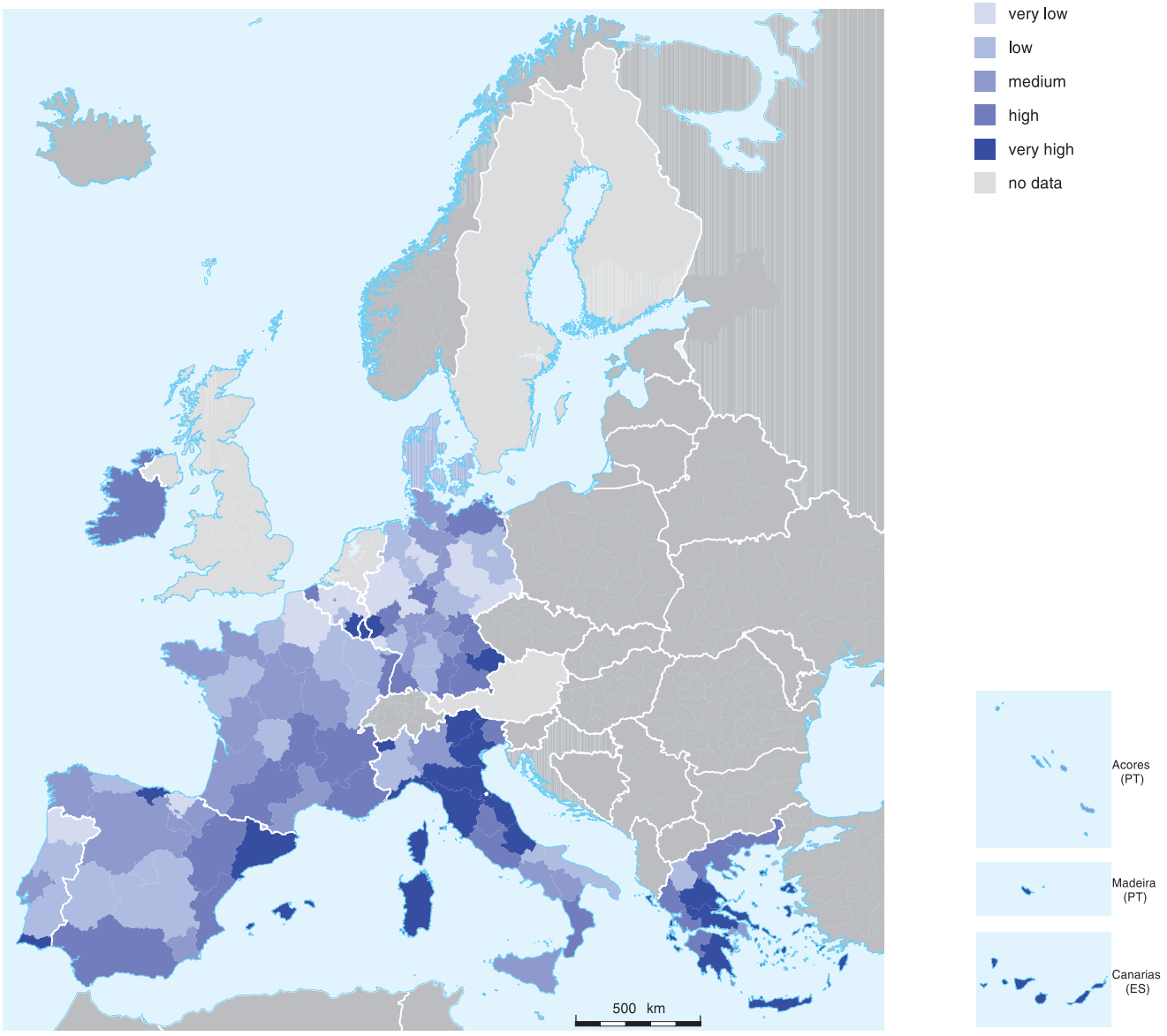
Indicator 3:
Touristicity of cultural sites

Formula: ratio of tourist capacity (number of beds in hotels and similar accommodations) on the total number of dwellings/households in a NUTS area.

Data: no data available on households for AT, FI, SE; no data on bedplaces for NL; no link possible for UK on households data (same reason as before). For each other country, the ratio is between 1995 data on tourism / 1994 data (the most recent ones) on households, except for PT (1996/1994).

This indicator measures the dependence of the local social fabric on tourism economy; it indicates therefore the capacity of the tourist industry to "internalise" the economic benefits generated by the presence of cultural attractions. The hypothesis is that a well-organised and sufficiently developed tourism industry helps to internalise the social and economic benefits that derive from the use of heritage.

Map B-4
Touristicity of cultural sites



Data source: EUROSTAT, own computations

B-2.1.2 Comments on the mapping of the European cultural space according to the indicators of significance and endangerment

The first four maps offer a straightforward view of the European regions with regard to the presence of, the potential demand for and the effective use by tourism of built cultural heritage. Both in absolute (map B-1, page 71) and in relative terms (map B-2, page 71) the differences in the supply of built heritage between the European regions are considerable.

Obviously, map B-1 underscores the cultural richness of the regions of Europe where the NUTS 3 delimitation is finer. Nevertheless, one can notice where the cultural assets are concentrated within countries, and some homogeneous areas or "heritage regions" can be identified.

A first comment that can be made on this map is that – along with the most notorious cultural regions – many "peripheral" regions can boost a remarkable presence of cultural sites: south-eastern Sweden, Scotland, Ireland, Italy's major islands and the Peloponnesus in Greece. If we relate such concentration with the extension of the region, as map B-2 (page 71) does, we obtain a more significant picture of their relative cultural richness. The assets result concentrated in the "cultural hearts" of Medieval Europe, like Central Germany, the Flanders and some historical English regions. Interesting concentrations occur in the Danish island of Bornholm, the German *Land* of Sachsen, Corfu and Rhodes islands in Greece. Finally, a concentration of cultural assets is present in some urban regions of main importance, like the Dublin area in Ireland, the Naples and Rome provinces in Italy, the Copenhagen district, Greater London and the urban areas of the two major Portuguese cities, Lisbon and Oporto.

These regions display a high concentration of assets: it means that cultural sites are numerous in the same area, thus, in a sense, they are dispersed *within* the region. This does not occur in areas where the assets are concentrated in absolute sense, that is, the cultural richness is concentrated in one site. For this reason, we call this index of *relative* concentration. To consistently analyse the information provided by the latter map, data from map B-3 (see page 72) should also be taken into consideration. An area with a low score in indicator 1b, and a high score in indicator 2, is one where the high tourist pressure weighs mainly on central districts or sites. This, for example, occurs in cities like Sevilla, Venice, Florence, Vienna. Areas where the tourist pressure can be dispersed to a higher number of assets located throughout the region, offer more opportunities for the creation of "alternative routes" or decentralised tourist attractions, which make it easier to manage tourism in a sustainable way. This is another relevant information for the European spatial planner.

The mapping of the European territory according to indicator 2, displayed in map B-3, offers a picture of the regions where the pressure on local resources (proxied by the number of inhabitants) is potentially excessive. The traditional tourism regions clearly emerge from such map: Scotland, Côte d'Azur, southern Germany, Austria, the Spanish eastern and southern coasts, the Italian Adriatic coast and Crete, to mention only a few examples. In Scandinavian countries, where the population is sparser, this indicator is not very significant. In other areas of Europe where the distribution of population is more uniform, we can see substantial differences. There seem to be two main "pressure poles", one in Alpe-Adria region (comprehending north-eastern Italy, Austria and south of Germany), and another on the Mediterranean coast from western Italy to south of Spain, including the major West Mediterranean islands.

The "touristicity indicator" largely confirms this pattern; it is indeed highly correlated with the use pressure index. According to this mapping, north-eastern and Central Italy, insular and parts of continental Greece, Catalonia, are the regions which have modified in a more substantial way their social fabric to accommodate the tourist flow generated by the presence of cultural assets. In this way, they show to be capable, to a certain extent, of internalising the benefits generated by the heritage and to turn them into a source of income that can be devoted to the maintenance and preservation of the heritage itself.

There are, however, some significant differences between maps B-3 and B-4. Despite the approximations relative to the scale of measurement, such differences turn out to be the most relevant information

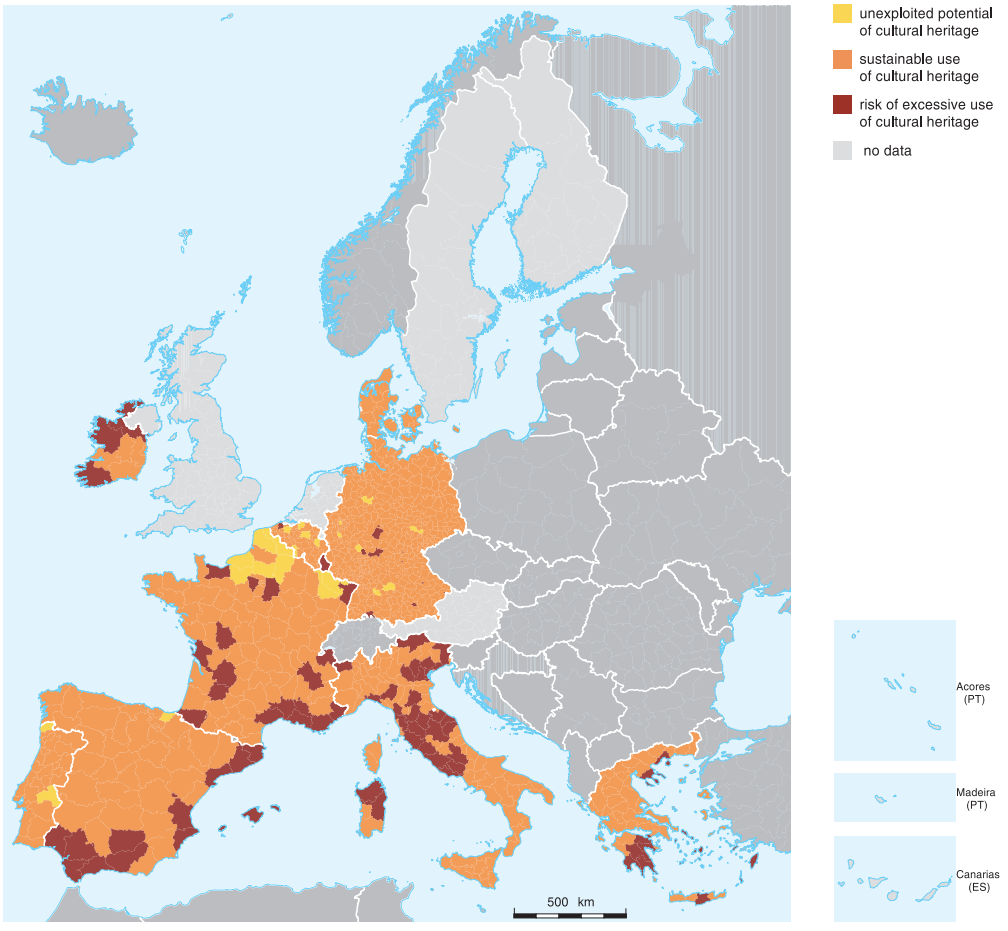
that can be retrieved from the system of indicators presented here. In fact, the description of the "European cultural space" according to the four indicators utilised enables spatial planners to identify the areas of potential crisis for a sustainable use of heritage.

Particularly interesting is the experiment to combine the indicators so that it becomes possible to classify the European territory in areas where the use of heritage is sustainable and where it is not (see map B-5).

Thereto, the areas that score best on the first indicator are selected and for each of them the scores on indicators 2 and 3 are analysed. To do this, the values of the indicators 2 and 3, arising from data at NUTS 2 level, were assigned ex abrupto to each NUTS 3 level region underneath. The choice not to do the vice-versa (i.e. to integrate on NUTS 2 the inventory performed at NUTS 3 level) was dictated by the will to retain a more localised information around the high ranked areas, that arise from quasi-punctual items at European scale.

The use of heritage is sustainable if the pressure remains low (indicator 2) while "touristicity" (indicator 3) is above average. Problems with non-sustainability are arising either where pressure on heritage is extremely high (indicator 2) or where the availability of heritage is abundant but the touristicity (and hence the pressure) remains below the average. While in the first case stress may compromise the integrity of built heritage, in the second case some room for the "valorisation" of cultural assets is still existing and the potentials culture offers are not fully used.

Among the first set of regions (map B-5), many provinces of central and north-eastern Italy appear, as well as coastal provinces of France and Spain. Five provinces of the Veneto region out of seven, as well as six Andalusian provinces out of nine, have above-average risk of unsustainable use of the heritage. In general, coastal areas, where cultural tourism adds to leisure tourism, are the most struck by excessive pressure. Balearic Islands (where there are 60 yearly stays for each inhabitant), the Dodecanese and



Map B-5
Sustainability of use of cultural heritage

Data source: EUROSTAT, own computations

Ciclades in Greece are the three areas where the pressure on the heritage is the highest. The western coast of Ireland is also significantly affected by an unsustainable use of the heritage, as well as the Peloponnesus in Greece. The same is true for many mountain regions, where mountain tourism adds to the cultural motivation.

The second set of regions (coloured in yellow) is even less numerous. The heritage seems to be not properly valorised in north of France and Lorraine, regions marked by a "passing" tourist flow that tend to spend the night in more touristic areas. The same happens in some peripheral areas of Portugal (Alto Alentejo and Minho), in the province of San Sebastian in Pais Basques, in French Moselle and German Limburg. Other remarkable examples of unexploited potential are the Belgian cities of Gent, Antwerp and Leuven, and Köln in Germany. In general, low valorisation areas are concentrated in France, Belgium and Germany. Unfortunately, no data could be obtained for the Netherlands, the United Kingdom, Austria, Sweden and Finland, where many "yellow" areas as in map B-5 are likely to appear.

It is interesting to note that in some cases, "red" and "yellow" areas are close one another. This happens in the case of Lorraine with respect to Luxembourg and neighbouring Alsace, in the case of French Nord-Picardie with respect to West Flanders and Western Normandy, and in the case of pays Basques with respect to South Aquitaine. The region of Bruges is clearly a "tourist pole" which attracts tourists visiting all other medium-sized Belgian cities. In all those cases, a more balanced distribution of tourist flows should allow to valorise some regions alleviating the tourist pressure from others. This is clearly a matter for tourism planning at a level above the regional.

To conclude, in not many NUTS 3 regions sustainability problems seem to be of particular urgency. This does not, however, exclude the possibility of excessive pressure on specific sites. The presence of a number of over- and under-exploited areas has, of course, policy implications. The three cases, Bruges, Granada and Venice are all lying in areas where the use of built heritage may not be sustainable. Moreover, it is very likely that the proximity of non-cultural but already developed regions (as some coastal or mountain areas) to intensely cultural regions with a low accommodation capacity generates an intense flow of excursionists. This is certainly a relevant information that the planners may use to identify the right spatial scale for the management of regional assets.

In general, the scarcity of homogeneous data concerning the cultural assets does not allow a more thorough reading of such complex phenomena, regarding planning specificities and management structures. For example, data about excursionism – one of the most remarkable sources of strain and costs for the heritage sites – are generally missing from official statistics or are collected in a fragmented and non systematic way. However, at the level of single interesting case studies, an attempt has been done to collect this additional important information.

B-2.2 Presentation of Case Studies of Unsustainable Use of the Cultural Heritage

The cases that have been included, the heritage cities of Bruges (Belgium) and Venice (Italy) and the Alhambra of Granada (Spain), allow us to add some further considerations on the measurement of the issues regarding the active conservation of heritage in Europe.

B-2.2.1 The Alhambra, Granada, Spain

The case of the Alhambra in the south Spanish region of Andalusia is very different from that of the cities of Bruges and of Venice. The Alhambra is a heritage site that is situated very close to the city of Granada (NUTS ES614) but has not (yet) been absorbed by the urban development process. Lying on a hill just outside the city and a mixture of different architectural styles, the Alhambra is indeed an impressive monument that has been classified as World Heritage Site by UNESCO. It contains important elements of the Arabian, of Renaissance and of Baroque art and architecture (hence, a high level of historic stratification in art).

According to a recent survey by a team of the University Complutense of Madrid and directed by Prof. Troitino (1999), the Alhambra is visited by almost 2.1 million people a year (the tourist pressure on the site is therefore considerable). Most of these visitors are not spending the night in Granada; more than a million people, that is approximately 50 % of the total number of visitors, visit the Alhambra as excursionists. This is partly due to the fact that Granada is situated close to the Costa del Sol with its multitude of beach resorts and the Sierra Nevada which offers plenty of opportunities for skiing in the winter months. The people that are spending their holidays here are tempted to come to Granada for the day. Moreover, the popularity of Granada has given rise to the development of tourism in cities around. Therefore the whole region benefits to some extent from the presence of the Alhambra (the extension of the tourist region is impressive).

The Alhambra being to some extent an isolated site means that it does not play a direct role in the local economy and society. Therefore, the conflicts with the inhabitants or economic activities are but marginal and the social–economic carrying capacity bear less relevance as in the case of the heritage city. However, locals complain that the spill-over from the Alhambra on Granada's economy could be higher if its use would be more intense (evidently, the community involvement is rather low). But with the actual number of visitors, the physical carrying capacity of 8,400 people per day, calculated on the basis of the maximum number of people that may enter the delicate but central Palacios Nazaries, is almost reached on many days during the summer months. The case of the Alhambra confirms that for isolated historical sites the physical is more relevant than the social-economic carrying capacity for isolated sites. In order to tackle the problem of the carrying capacity of the Alhambra, visits to the site can now be booked in advance. The management has established an agreement with a Spanish Bank to distribute entrance tickets to the Alhambra nationally.

Next to the issue of the carrying capacity the Alhambra has faced a problem with its accessibility. Until five years ago, the monument could be reached by car. This led to much pollution in the city and to congestion on the access roads. Today, the Alhambra can only be reached by taxi, by dedicated minibus or by feet (the conflicting use of public transport is virtually absent). This has helped to solve most of the problems mentioned before. Moreover, the access to the different part of the Alhambra itself has been rationalised in order to protect and conserve the delicate parts of the site more easily.

The Alhambra is managed by an independent agency, in which the Ministry of Culture, the Regional Government (in particular) and the Municipality have their say. This renders the decision-making process extremely efficient and effective (decision-making regime) and ensures the presence of a certain coherence and vision is the conservation and development strategies chosen (co-ordination between the different levels of government is implicit). The way in which the Alhambra is managed today has helped to make it a true benchmark among the historical sites in Europe.

B-2.2.2 The Province of Venezia, Italy

The Province of Venice (NUTS IT325) is one of the seven provinces of the Veneto region in the north-east of Italy, a region of high economic dynamism, first export area of the country and one of the hearts of the Italian textile district based on small and medium enterprises.

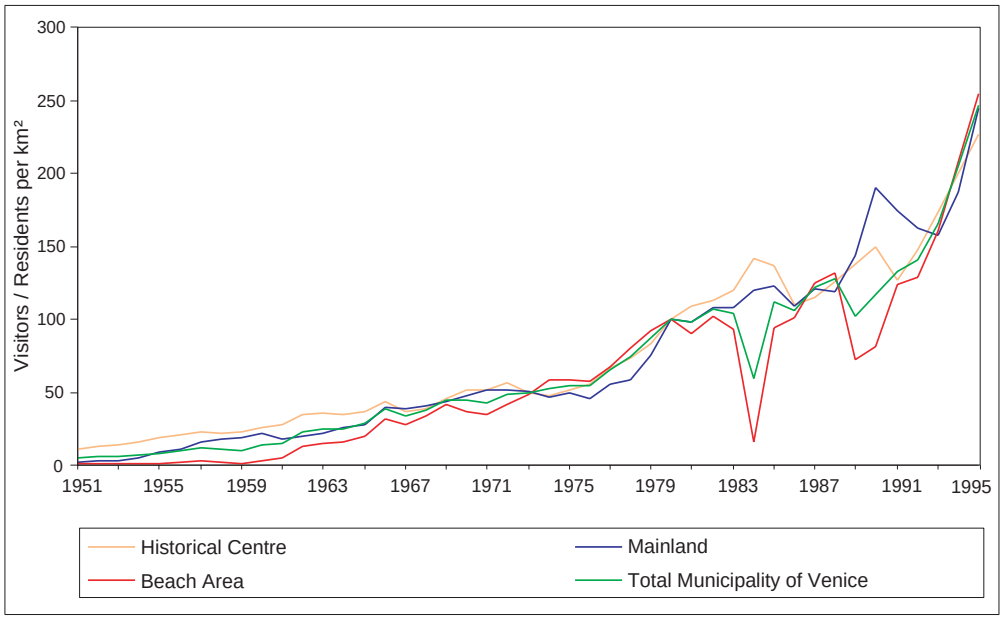
Due to the richness of its cultural assets and to the uniqueness of its environmental setting, the city of Venice (295,000 inhabitants, 70,000 of which in the historical centre in the lagoon) is one of the most famous international tourism destinations, maybe even the most visited, cultural destination. From more than one point of view, the lagoon city resembles a museums of virtually all the artistic and architectural styles, which history has contributed to integrate in a complex way (high stratification of the cultural heritage). In fact, these points of strength for tourist attractiveness have become the very weaknesses of the city as an economic system: the fragility of the environment and the irreplaceably of the built heritage have determined a progressive loss of competitiveness of the city which loses functions and population to the hinterland.

The economic development based on tourism has enriched the city even in the years in which economic activities were dispersed and heavy industry was being dismantled. However, the intolerable concentration of tourism flows in space and time creates negative externalises on the costs of living in the city and preserving it for the future generations (high level of conflict in the use of land for tourism purposes). The increase of day-tourism well over the boundaries of the socio-economic carrying capacity has accelerated the process of expulsion of economic activities from the city centre, to say the least, and in more occasions threatens the very maintenance of the cultural assets which make up the attractiveness of the city even for tourism purposes.

Costa and Canestrelli adopted a linear programming model to estimate that 22,500 daily visitors is the maximum amount compatible with a sustainable use of the several sub-systems of which the tourist function of the city consists, as the capacity of waste disposal, the parking space, etc. At the same time this number guarantees that the use of the city is not harmful to the city's fabric and to the other economic functions performed by the city. This calculations also yields the optimal composition of the visitors' flow. The theoretical limit is respected for what regards residential tourism, but it is largely violated for what regards day trips. The threshold of 7,750 daily visits for this category is surpassed for almost a third of the year (in 1989), and the number of yearly violations is steadily growing (216 estimated violations in the year 2000).

In fact, the time-trend of indicator 2 (see figure B-1) makes it clear that the pressure on social factors is also growing at an exponential rate, calling for drastic interventions. This unbalanced use of the city resources is clearly non compatible

Figure B-1
Use pressure indicator in the historical centre of Venice, years 1951–1996



Source:
Van der Borg and Russo, 1997

with a sustainable development based on tourism. In the worst case scenario of an intensification of the tourism pressure, the heritage will not be able to generate the resources for its maintenance, endangering its very capacity to be preserved in the long term. However, until now no strategy has been put forwards to regulate the flows and promote a sustainable use of the city resources. The delicate interrelations between the growth of tourism and the liveability the city must be explicitly taken into consideration, both on an economic and on a spatial ground. It is now hoped that the new master plan will tackle some of the problems associated with the difficult accessibility of the city and with the spatial organisation of tourism activities. The involvement of the tourist region of Venice, comprehending the whole north-east of Italy and some neighbouring countries, in the organisation and promotion of tourism products (to which a visit to Venice remains central) seems a next step of this strategy, as well as the reorganisation of the city's cultural system on market-oriented principles in order to enhance its accessibility and functionality to the general economic development. Nowadays, in fact, the museum system and the cultural events are managed in such a fragmented way that virtually no added value is created which stays in the economic circuit of the city. The demand for a greater co-ordination of the Venetian cultural system clashes against the resistance of bureaucracies and the strict budgets. Only private institutions seem able to promote effectively their exhibitions and events, with little consistency to the overall vision of a renovated role for culture in the city.

The necessity of a system of indicators to continuously monitor the evolution of the costs and benefits of different nature associated to tourism activity seems a crucial support to planning efforts. The spatial pattern of tourism in relation to the organisation of the system of attractions – a great part of which are cultural assets – is another aspect to be kept into consideration in its every dimension.

B-2.2.3 The Province of West Vlaanderen, Belgium

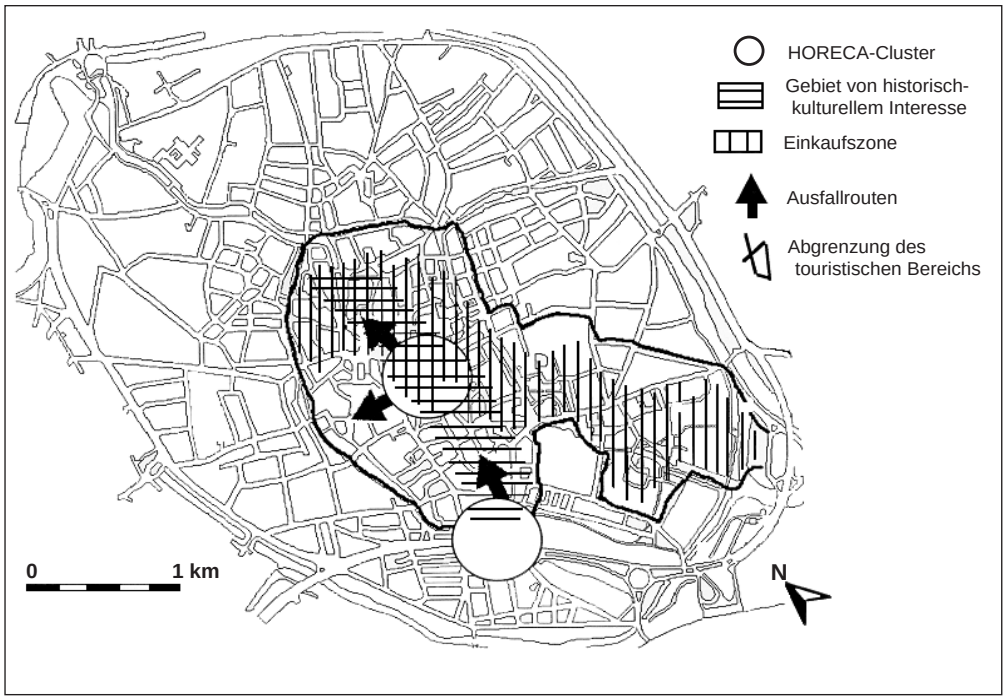
The Province of West Vlaanderen (NUTS BE25) is one of the 5 provinces of the Belgian State of the Flanders. The area is 314,433 ha and consists of eight *arrondissements* and 64 municipalities. The province has 1,122,849 inhabitants.

This region is known for the presence of a heritage site of prime importance like Bruges, one of the favourite European destinations for cultural tourism. West Vlaanderen is a major destination of national and international tourist flows. Even if the coast forms the principal element in the provincial tourism system, Bruges also has a long tourism tradition. The tourist potential is also provided by many minor centres (among which Damme, Ieper, Veurne, Kortrijk) and by the coast resorts (comprehending Oostende, Knokke-Heist and Zeebrugge), celebrated destinations for beach holidays. The city of Bruges is one of the most beautiful and rich medieval centres in Europe. The surrounding area of the "Flanders Field", with the many villages and isolated monuments, is a major example of cultural landscape with historical attributes.

The city of Bruges hosts the highest number of sites and monuments. To the high concentration of cultural resources, corresponds a high tourist pressure; however, excursionists should also be added in this computation. The city itself is heavily touched by tourism; many of Bruges' current problems with tourism are typical for a mature tourist destination. This activity mainly affects the residential infrastructure of the coastal cities, while cities which host cultural assets have a greater difficulty in "internalising" the high tourist flows. Therefore there is a leakage of tourist benefits generated by the cultural assets of art cities like Bruges and Kortrijk to a wide tourist region in which coastal resorts act as generators of flows. The average price of accommodation in Bruges is 95.3 Euro. Hotel prices range from 37 Euro to 170 Euro (West-Vlaamse Ekonomisch Studie-Burea, 1998). The cheaper accommodation facilities on the coast, at only 30 minutes trip from Bruges' historical core, make day-tripping to this city very popular. In fact, the tourist region of Bruges comprehends the coast of the Flanders, other Belgian historical centres (Gent, Antwerp, Bruxelles), the south of the Netherlands, north of France (Lille, Pas-de-Calais), the neighbouring regions of Germany and Luxembourg.

The core of Bruges conurbation, comprehending no more than a fourth of the inhabitants of the city, can be taken as a

Figure B-2
The "concentration model" of tourism development in Bruges



Source: Jansen-Verbeke, 1990

successful example of spatial planning for the preservation of the cultural heritage. Some ten years ago, the city was suffering from a very heavy physical strain from tourism. Among other, walking and parking were perceived in 1989 as problematic issues with direct consequences in terms of costs by the 30 % of the population (60 % on Saturdays) (Jansen-Verbeke, 1990). The municipal administration opted then for a "concentrated" model of tourism development aiming at the limitation of tourism activities to the more central areas, and leaving most part of the historical centre intact from the proliferation of tourism-related activities. This policy, motivated by the will to manage on the spatial scale costs and benefits associated to tourism development, is now being reformulated due to the very high pressure on the central areas of the city. A recent survey has confirmed that, though quite positive about the city's policies in the field of tourism, the citizens of Bruges are still perceiving the costs of tourism development as very high. The high traffic congestion has only partially been solved by a very strict traffic plan.

Moreover, it has now become apparent that policies on the cultural supply side are also urgent. The monuments and cultural assets in West Vlaanderen are managed by the Flemish Ministry for the Culture. Municipal museums in Bruges fall under the responsibility of the City Hall Department. Consequently, there is a certain inconsistency of cultural and event strategy for lack of co-ordination between departments at different levels (e.g. between municipality and province). As a result, the effective attraction capacity of the cultural system is quite low, and very standardised in the sense "traditional" arts. Little or no effort is done to rejuvenate it or to promote other forms of cultural production. The perceived danger of creating clichés is so high that the city has proposed to host the European Cultural Capital event of 2002, hoping in this way to gather forces and momentum for a new cultural policy based on a lively and stimulating use of the immense city's heritage. The city can count on a potentially good system of involving the private and public stakeholders in the decision-making about tourism development, thanks to the role of the Advisory Board for Tourism. However, the cultural managers and producers are under-represented in this advisory body. Moreover, informal networks with a high power of determining the outcome of the development process, like the building corporations, the shoppers' associations and the HORECA sector, are sometimes slowing down the rejuvenating effort pushing more towards "quantity" than "quality".

The Municipality and the Provincial Government look after a more balanced pattern of the visits, which also explicitly takes into account the potential attractiveness of the "green belt". The

proximity with the coastal area is going to be turned from a source of problems (with massive flows of excursionists day-tripping to Bruges) to a powerful basin for the development of innovative cultural tourism products.

Forced by inhabitants' intensification of protests against uncontrolled tourism growth, the local authorities have only recently started to take tourism policy seriously. A study, executed by the West-Vlaamse Ekonomisch Studie-Bureau (WES) and issued officially at the end of 1991, gives a clear picture of the structure of the local tourism market and its economic relevance for the local economy. It identifies the major bottlenecks for Bruges' tourism development and contains a number of recommendations to remove them.

The Municipality of Bruges has so far implemented but a few of the proposed measures. The traffic plan is one of these measures. It seems to have been a success. Traffic has indeed been reduced drastically, both for tourism as well as for other purposes. The use of public transport and of bikes has been intensified, and the touring coach problem has been solved. The co-ordination problem raised by the WES study has not been solved. Actually, the recently installed tourism commission functions merely as a forum where the "Dienst voor het Toerisme" can present its initiatives. Real interaction between the policy-makers and the industry and citizens who took part in the commission has not yet been seen.

B-2.2.4 Synthesis of case studies

The following table provides a synthesis of the cases, according to the seventeen indicators that were defined following previous discussions and the answers of the NFP's to the questionnaires that were distributed in the summer of 1999.

Table B-2
Synthesis of case studies

	Indicator	Case study: the city of Venezia, Italy	Case study: the Alhambra in Granada, Spain	Case study: the province of West Vlaanderen, Belgium
1	Concentration of cultural sites / monuments	See maps B-1, B-2	See maps B-1, B-2	See maps B-1, B-2
2	Tourist pressure on heritage city / site / monument	See maps B-3	See maps B-3	See maps B-3
3	"Touristicity" of the heritage city / site / monument	See maps B-4	See maps B-4	See maps B-4
4	Stratification	In Venice, elements from almost every architectural and artistic period are present. Roman remains in Torcello and Eraclea sites.	Arabian, Renaissance and Baroque art and architecture	In Bruges and other art cities: medieval, "Flemish gothic', renaissance. Cultural sites which date from the Industrial Revolution (old mines, quarries, old factories).
5	Controls on the development and existence of regional planning regarding heritage cities / sites / monuments	Spatial plan by Province of Venice (PTP)	Development plan of the Alhambra authority	
6	Presence of infrastructures nearby the heritage city / cultural site / monument			
7	Management / ownership regime	Fragmented ownership and management of cultural assets	The Alhambra is managed by an independent agency, in which the Ministry of Culture, the Regional Government (in particular) and the Municipality have their say.	
8	Presence of prod. structures nearby the heritage city / cultural site / monument	Industrial site of Marghera at 6 km from historical centre		
9	Tourist prices	Gradient of hotel prices, calculated for different locations within the Veneto region, indicates a price differential of 200 % between Venice and Padua (35 km from Venice).		Average price of accommodation in Bruges is 95,3 Euro Hotel prices range from 37 to 170 Euro (1998).
10	Decision-making regime	Lack of co-ordination between departments at different levels and with private institutions	Perceived as efficient and effective	Lack of co-ordination between departments at different levels
11	Co-ordination in management of cultural assets	Low	Coherence and vision in the conservation and development strategies	

continued

Table B-2 (continued)

	Indicator	Case study: the city of Venezia, Italy	Case study: the Alhambra in Granada, Spain	Case study: the province of West Vlaanderen, Belgium
12	Conflict level in the use of the land (general)	Half of the population left Venice during the last three decades		In Bruges, hotel capacity +129 % in the period 1981to 1989. High rate of substitution of housing function with tourism-related functions.
13	Community involvement	Through "Agenda 21"	Low (the effects of Alhambra on the local economy are perceived as unsatisfactory)	Organised through commission work (Advisory Board for Tourism) with representative of the private sector.
14	Extension of tourist region	The tourist region of Venice extends for ca. 600 km in the north-east of Italy, and reaches Slovenia, Austria and Germany on the north-east and regions Emilia-Romagna, Lombardia and Tuscany on the south-west. The coastal area of Veneto and Garda lake are important origin areas of excursionism.	Costa del Sol, Sierra Nevada resorts. Other Andalusian art cities (Sevilla, Cordoba, Malaga)	Tourist region comprehending the coast of the Flanders, other Belgian historical centres (Gent, Antwerp, Bruxelles), south of the Netherlands, north of France (Lille, Pas-de-Calais), neighbouring regions of Germany and Luxembourg.
15	Conflict level in the use of public transport	Perceived as relevant by the local population	Virtually absent	High traffic congestion in Bruges only partially solved by traffic plan. Walking and parking perceived as problematic by 30 % of the population (60 % on Saturdays).
16	Carrying capacity	Socio-economic carrying capacity estimated in 22,500 yearly visitors (7,750 of which day-trippers). 216 yearly violations of carrying capacity estimated for the year 2000.	Physical carrying capacity: 8,400 daily visitors. Threshold reached for approximately 100 days in a year.	Bruges has reached the so-called "saturation stage".
17	Crime rate	u.a.	u.a.	u.a.

B-3 Concluding Remarks

The maps which have been produced utilising the four indicators of "significance" and "endangering" of the European cultural heritage do indeed contribute to identify stress areas and to envisage the appropriate planning scale. The maps of the concentration of heritage (both in absolute and in relative terms) stress the existence of a double level of relevance when analysing the significance of the heritage on the territory. It is not only the presence of cultural assets to demand a thorough planning for their sustainable use, but also the relation within *systems* of cultural assets: a concentrated heritage within regions requires stronger planning tools than a dispersed one, to regulate the adverse phenomena caused by use pressure. The pressure type on the heritage which matters the most turns out to be tourism. Areas of tourist pressure are located throughout Europe, not only in the most renown tourism regions. The "touristicity" indicator captures the degree of "internalisation" of benefits generated by tourism within the community which bears the costs of an excessive pressure.

An integral reading of the information provided by the four indicators identifies the areas in which the use of the heritage is sustainable and the ones in which the stress caused by use on the heritage is excessive. Moreover, a further, precious information is provided, which is often overlooked and which represents a natural focus from the reflections in the introductory chapters: the areas which suffer from an insufficient evaluation of the heritage are pin-pointed. The analysis of the proximity of areas that are subjected to under-use of the heritage, and those in which the use is excessive, give immediate suggestions to the spatial planner about the adequate scale and direction of planning efforts for a sustainable use of the cultural assets.

The case studies considered in this study help to focus the attention of the reader on other – no less important – aspects that must be kept in mind when dealing with the economic problem of heritage protection. The case of the Alahambra in Granada is useful for the issue of the most efficient organisation of visits within an asset. The study of tourism pressure on Venice illustrates the conflicts that may arise when the socio-economic carrying capacity of an art city is violated. The case of West Flanders, and its main art city Bruges, shows how different development models might affect consolidated interests and expectations arising from tourism development, making it difficult to switch from one model to the other when contextual conditions would require it.

B-4 References

Canestrelli, E. and Costa, P. (1991): Tourist Carrying Capacity. A Fuzzy Approach. In: Annals of Tourism Research, 2, Vol. 18, pp. 295–311

Consorzio Venezia Ricerche (1997): Impatto del Giubileo su Venezia. Venice

Costa, P. and Van der Borg, J. (1993): The Management of Tourism in Cities of Art. = Quaderni CISET, 2. Oriago di Mira

Ermolli, B. and Guidotti, E. (1991): Un'Ipotesi Progettuale per il Monitoraggio e il Governo dei Flussi Turistici di Venezia. In: Rivista Veneta, 38, pp. 103–114

Glasson, J., Godfrey, K. and Goodey, B. (1995): Towards Visitor Impact Management. Avebury, Aldershot

Jansen-Verbeke, M. (1990): Toerisme in the binnenstad van Brugge. = Nijmeegse Planologie Cahiers n. 35

Lindberg, McCool and Stanley (1997): Rethinking Carrying Capacity. = Annals of Tourism Research, 2, Vol. 24.

Pearce, D.W. and Turner, R.K. (1990): Economics of Natural Resources and the Environment. Harvester Wheatsheaf, London

Prud'homme, R. (1986): Le Tourisme et le Développement de Venise. Mimeo, Université de Paris, Paris

Rispoli, M. and Van der Borg, J. (1988): Più Lontani, Più Cari. In: CoSES Informazioni, Vol. 32/33, pp. 57–64

United Nation Educational Scientific and Cultural Organisation (1968): Report on Venice. Paris

Van den Berg, L., Van der Borg, J. and Van der Meer, J. (1995): Urban Tourism. Avebury, Aldershot

Van der Borg, J. (1991): Tourism and Urban Development. Thesis Publishers, Amsterdam.

Van der Borg, J. (1994): Demand for City Trips. In: Tourism Management, 1, Vol. 15, pp. 66–69

Van der Borg, J. and Russo, A. (1997): Indicatori per lo Sviluppo Sostenibile del Turismo a Venezia. = Fondazione Mattei Working Document No. 06/97, Venice

Van der Borg, J. Costa, P. and Gotti, G. (1995); Tourism and Art Cities. = UNESCO Venice Technical Report, No. 20, Venice

Van der Borg, J., Costa, P., Gotti, G. (1996): Tourism in European Heritage Cities. In: Annals of Tourism Research, 2, Vol. 23, pp. 306–321

2 Conclusions

2.1 Policy options

Above all, the results of the spatial analysis suggest that those responsible for spatial planning should continue to work on the cautious "mise en valeur" of cultural assets, since they not only make up an important part of our historical development and of the common European identity but may stimulate social and economic development as well. In fact, the spatial analysis has clearly shown that notwithstanding some areas with an extreme concentration of heritage, in particular in the Mediterranean basin, the presence of heritage is rather scattered and therefore in principle allows for a balanced development of the use of central and complementary cultural sites.

Within the circle of experts, there is often the discussion whether the main goal is that of conserving the cultural heritage in its actual state, "musealising" it, or whether one should rather follow the line of further development of tourists demand. The first approach is often criticised as a management that prevents the inherent evolution and development; the price to pay in the second one is that cultural heritage undergoes an alteration and changes its character, or may even disappear.

Neither of the approaches is completely correct or completely wrong. Since there are different types of heritage with different significance and endangerment, they require different treatment. In general, one can distinguish juridical/protection, planning and management measures.

In general, the German-Italian working group has distinguished juridical/ protection, planning and management measures. The suggestions for the spatial planning regarding built heritage that follow below are based on this distinction.

Protection applies to all cultural heritage and in particular that with a special or outstanding value. While this approach is in most countries and also on an international level well advanced when related to landscapes with valuable natural habitats (FFH directive or Natura 2000), the member states should be encouraged to set up proper legal means for the protection of cultural landscapes as well. On the European level, the European Landscape Convention serves as an adequate means.

However, while since 1993, the UNESCO World Heritage List includes cultural landscapes of outstanding universal value, other protected area systems are needed in order to underline the delimitation of cultural landscapes of European and national (referring to EU member states) rank.

Several conventions, for example those of UNESCO and the Council of Europe, already cover the built heritage but not always are the indications included in these conventions fully transferred and adopted by the member states.

But it must be very clear that (rigorous) protection measures can only cover a very limited part of this cultural heritage, because most parts of the cultural landscape and built heritage have evolved over a long time and for future development they need the economic and social functions imposed on them by the people living there.

Planning is a second instrument. In the sector of spatial planning the issue of cultural assets has increased considerably in importance, especially at EU level (see the various documents that were produced in the context of ESDP). If this is taken as a standard, spatial planning in the member states still has considerable work to do in order to put the objectives into concrete terms with higher formal obligations. Instruments of spatial planning should be revised and supplemented.

In accordance with the precautionary principle, one example could be the protection of open areas through the instrument of priority/reservation sectors, as discussed in Germany (Job, Stiens & Pick 1999). Even if in most countries explicit attention is paid to officially listed monuments in the planning process, many cultural sites and heritage cities are still not sufficiently covered and protected from excessive use.

In connection with the conservation and development of cultural assets, spatial planning should also aim at taking on an interdisciplinary co-ordination and moderation function.

One primary task could be to create a co-ordination between the socio-economic concerns and the different planning actions on the "protectionist's side", e.g. sectoral plans of agriculture and resource-protecting plans of nature conservationists for cultural landscapes, or the approach usually advocated by art historians and architects.

Land use planning includes controlling the changes in the use of land and in imposing restrictive conditions on certain forms of land use. It is necessary that standard routines of environmental impact assessment at all spatial levels as well as in a strategic sense should not only include natural aspects, but also the cultural heritage.

Land consolidation, which has for long applied solely with the aim of improving agricultural efficiency, could be further adapted to take other objectives, including landscape conservation, into account. Another possibility would be respecting landscape aesthetics for leisure purposes and attractiveness as "soft" location factor. Also the implementation of primary infrastructure for tourism development could be encouraged. An example would be installing food and cycle paths or the promotion of rural tourism facilities.

Moreover, attention should be paid to the possible relationships between built heritage conservation and, for example, housing policies and urban regeneration policies. These may be used to guarantee the liveability of historical areas and therefore reinforce the immaterial contents of monuments.

Concerning the management of cultural heritage, direct and indirect actions may be distinguished. Direct actions include the purchase of land or monuments by public agencies or NGOs, whereby the desired form of management and co-ordination is secured. The National Trust in the UK being owner of more than 240,000 ha land and of castles, parks, industrial monuments and other types of cultural heritage serves as an example.

EU Community Initiatives under the different Structural Funds and social and economic support measures belong to the indirect management actions, contributing to and influencing the management of certain types of cultural heritage. Thus, in all actions taken, the effects on cultural heritage should be considered.

A considerable influence on the shaping of large parts of our rural cultural landscape can be attributed to the LEADER programme and the future agricultural policy. The EU Commission's Agenda 2000 contains two areas of change: first, the changes in agricultural market and price policies and compensation payments, and secondly, new or modified environmental policies. Positive environmental effects may be expected from the Commission's proposal to introduce decentralised environmental policies applied on a regional level and based on the principle of subsidiarity.

Other common instruments to be further developed include special marketing arrangements for products that are locally or regionally produced. If these products own a strong regional identity, these arrangements are often associated with a labelling system with the aim of facilitating consumer choice and promoting consumer confidence. Therefore we have to take into account the indigenous knowledge of farmers very different techniques of traditional agricultural production and product improvement, too.

As far as built cultural heritage is concerned, we should consider that, being transversal, policies regarding cultural heritage in urban environments not only regard the actions taken by DG Rego, but also in the schemes developed by other DGs of the EC (for example promoting cultural tourism development; strengthening infrastructure development close to not yet accessible heritage sites, and so on).

A beginning has been made with the classification of NUTS 3 regions for which the use of built heritage may not be sustainable. Regions where social and economic development potentials may be lost and regions that may suffer from excessive pressure on the cities, sites and monuments were identified. In the first type of regions further tourism development should internalise the benefits of the presence of cultural heritage; in the second emphasis needs to be laid on controlling accessibility to heritage.

Cultural heritage protection, planning and management should not be seen separately. Rather they should be integrated in other aspects of sectoral planning like economic or traffic development and treated with a mixed

instrument tool case and by professionals from different fields.

Although an integration of findings and policies on an EU-wide level is desirable and necessary, a focus on local and regional decisions and measures should not be forgotten for two reasons: First of all, it is on local or regional level, where the cultural development takes place. All actions in this context give the European regions their regional identity and intrinsic value. A second reason is that most measures only work when accepted by and done in co-operation with people that live and work there; without the commitment of all stakeholders, the concerned actions will not prove to be successful in the long term.

All discussions about policy options should recognise that the final decision about the direction in which cultural heritage will evolve should be taken in agreement with the locals and their bottom-up visions.

2.2 Further work

As the experience within the SPESP has shown, data availability for a proper evaluation and monitoring on a European level is absolutely insufficient. Especially the EUROSTAT data proved to be utilisable only to a very limited extent. On the other hand, a number of approaches have been carried out on national levels where data availability is given. These data should be gathered, compared and evaluated in order to provide an appropriate and sound monitoring system.

An important development on the side of cultural landscapes should hopefully be obtained by gathering the new data of the CORINE Land Cover 2000 project. Then it would be possible to derive more detailed information, e.g. about field patterns and the dispersion and spatial structure of hedges and ditches or other elements of the cultural landscapes.

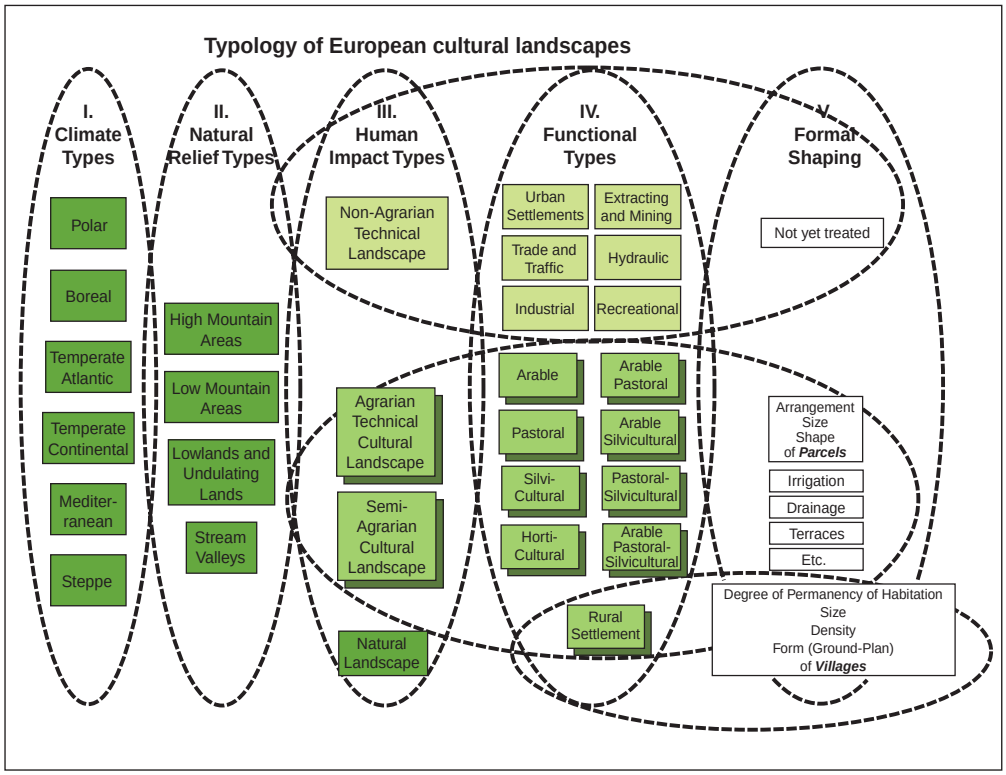
Another result of the appraisal among the SPESP members was that quite a number of geographical landscape classification and evaluation methodologies on different spatial levels have been developed on a national scale. Moreover, many ad hoc studies exist on the sustainable use of built cultural heritage, both on the local and regional level. Information on these approaches should be co-ordinated and integrated.

One basic condition to either conserve or develop cultural heritage, especially relevant for cultural landscapes, is their registration. While a number of useful landscape typologies and maps of the geographic distribution have been developed on a national level, European approaches are facing severe problems in terms of scale, accuracy and political relevance. As one homogenous data base for cultural heritage has not yet been constructed at the EU level, the results of this particular study may form a useful starting point. Therefore a European-wide neutral cultural heritage typology system – for cultural landscapes as well as built heritage – is needed to form the basis for an accentuation and evaluation of the development potential (valorisation or protection) of cultural heritage. Every European cultural landscape and heritage city, site or monument should find its place in such a typology system. Corresponding to the great diversity of landscapes in Europe here an approach of an open system was chosen which allows complements.

Regarding the landscape, different layers which determine their character can be identified. Obviously the landscape is strongly influenced by given facts of the natural surrounding – the physical geographical layer (only Climate Types (I) and Natural Relief Types (II) are represented here – see figure 2.1, page 88). Beside these abiotic factors resulting in biotic factors like natural vegetation cover, the human land use plays the major role in the development of a unique cultural landscape. These human activities are represented in the anthropical layer.

At first the degree of human transformation is subdivided into four Human Impact Types (III) ranging from no impact on the landscape – “Natural Landscape“ – to a high changing of the given facts resulting in “Non-agrarian Technical Landscapes“. This rough classification is further on differentiated by Functional Types (IV) and the Formal Shaping (V), leading to a consistent typology trying to represent all European cultural landscapes.

Figure 2-1
Typology of European cultural landscapes



This means, the typology structure is hierarchical with increasing degree of accuracy, since the last two layers are more important for describing cultural landscapes. This typology exists up to now as a draft. The logic system has only been partially defined and not yet applied on the territory of Europe. This would be the next step to do, which implies that the scale of a working map should be fixed before. What is presented here can be understood as a proposal that serves as a starting point for further scientific research work and discussions with spatial planners and policy-makers.

As far as the other part of cultural heritage – that is heritage cities, cultural sites and monuments – is concerned, further studies of the issues on the carrying capacity of cultural assets are urgently needed. The three case studies have shown that on a local level these issues play a crucial role in the management and the conservation of the cultural heritage. In the end, it may thus become possible to render the information that was displayed in the last map that indicated the margins for further development of the social and economic opportunities offered by the presence of cultural assets at least for the problem areas on a municipal (or even lower) level. Subsequently, more work is needed to analyse the interrelationships between the cities and their built heritage and the surrounding hinterland and its cultural landscapes.

Questionnaire
on Cultural Assets for the National Focal Points
of the Study Programme

I. Manual to the Questionnaire for the SPESP National Focal Points Concerning Cultural Assets (Working Group 1.7)

The following questions refer

– to the background paper on "typology and indicators for cultural landscapes and cultural cities, historic and religious buildings, archaeological sites", that has been presented at the SPESP meeting in Nijmegen and

– to the proposals and discussions that followed the presentation.

The main concern of this questionnaire is to get your comments as experts on the **significance of indicators** on one hand and on the other hand to collect information about the **availability of data**. Referring to the case studies we are asking for, our intention is also to collect data you are able to provide us with.

According to the subdivision of topics referred to in the corresponding papers, the questionnaire is separated into two, that share a common structure.

The use and the measurement of the proposed indicators should allow a "mapping" of the territory according to various criteria and levels, such as the following:

1. Map of the conflict on land use in the presence of cultural assets (identification of the systems of fruition of the territory and of overlaps);
2. Map of the socio-economic "unbalancing" due to the present system of fruition of the cultural assets (healthy areas – crisis areas – hot spots);
3. Map of the concentration and of the homogeneous systems of cultural assets;
4. Map of the state and perspectives of the cultural assets' conservation (intervention areas – crisis areas – inefficiency areas);
5. Map of the networks (identification of management systems and support structures of the cultural assets, identification of "missing links" and "under-endowed areas");
6. Map of listed cultural monuments and landscapes (legally protected on international level)
7. Classification and map of types of cultural landscapes (according to geographical regions and functional differences).

For this task, we will adopt a scheme for the evaluation and assessment of sustainability indicators derived from the World Tourism Organisation (source: Consulting and Audit Canada, What managers need to know: a practical guide to the development and use of indicators of sustainable tourism, prepared for the WTO, 1995.). The WTO has prepared a ranking system that enables managers and researchers to choose the most adequate among a set of suggested indicators. In the following table an example of this approach is given. The scores are High, Average and Low (H-A-L) according to the extent to which the indicator responds to the following requirements:

- availability of the data
- credibility and ease of comprehension of the indicator
- possibility of extrapolating time trends and of comparing different territorial contexts
- significance in terms of long-term sustainability
- possibility to define "threshold values" (a theoretic maximum value not to be overcome) or "benchmarks" (indexes to be used for time or space comparisons)

An indicator of quality of the water in Peninsula Valdes (ARG) is evaluated according to this technique in the example here reported.

INDICATOR: Water Quality in Diving Areas

Criterion	Ranking (H/A/L)
Availability	A
Credibility/Comprehensibility	L
Comparability	H
Significance	H
Thresholds/Benchmarks	A

The National Focal Points may thus be asked to assess the adequacy of the proposed indicators according to this technique, assigning a grade (H-A-L) for each indicator and for each of the criteria suggested above. It is also asked whether the data are easily available, and if in digital form. Moreover, some space is left to suggest further indicators: that means indicators that have not been listed by us, but seem worth to be included into the questionnaire in your opinion.

The digital data you can hopefully provide us with should have a description of graphic or geographic format (the projections used and relative parameters), of the database (tabular format) and of the availability of exchange formats as well as of the size of files. Also the territorial unit / scale of the data is of interest. The last five columns refer to the H-A-L-system used by the WTO (see above).

A short description of the criteria followed by the working group to reduce the number of indicators is now presented:

Cultural landscapes

Concerning cultural landscapes, in comparison to the Nijmegen background paper, in this questionnaire only selected indicators are asked for in order to reduce the work load for the NFPs and in order to avoid double work in the different working groups. Therefore, the following indicators have been left out:

- The complete category I has been erased, because these data are available through CORINE Land Cover and the indicators are treated by working group 1.6 (Natural Assets).
- The indicators of category II, that seem to be too general to represent cultural landscapes or that are available through CORINE or EUROSTAT.
- For category III, there are some overlaps with working group 1.5 (Land Use Pressure), so that the range of indicators had to be adapted. Nevertheless, this is the category with the most indicators left, because agriculture, which is occupying more than 50% of the EU territory, has dominating effects on the development of cultural landscapes.
- Category IV is neglected in this questionnaire, because information can be obtained from elsewhere, e.g. the World Conservation Monitoring Centre, the UNESCO World Heritage Centre, or the like.
- The case studies, their sources and contents are asked for in question 3. Here, the indicators referring to category V in the background paper are treated.

Cultural cities, historic and religious buildings, archaeological sites

Concerning the section on cultural cities, as emerged from the meeting in Nijmegen, the regional scale at which a certain phenomena has to be measured has its importance. Many aspects, while relevant at the micro level, lose their utility if looked upon at a regional level. Hence, the choice out of a broad set of indicators should not be too ambitious for what a European database might be able to produce in terms of statistics. In the case of the cultural heritage, a distinction can be made between punctual measurements and regional measurements. The first considers single monuments and sites; the second considers municipalities (if possible), provinces or even bigger administrative entities for which statistics are produced.

In order to produce a *mapable* Europe-wide information system on built heritage from a large set of relevant indicators only those were selected that could be implemented at least at a municipal scale. Therefore, the case studies will be used to apply other, more precise indicators and illustrate their use for planning purposes.

Because the description of some of the indicators chosen out of the set presented in the Nijmegen draft has also been slightly changed, the new list is attached in enclosure 1 with a new numbering as a reference for the following questions.

Please attach your assemblage of information and send it back to:

Cultural Landscapes
PD Dr. Hubert Job
Universität Trier
FB VI
D–54286 Trier
Germany

Cultural Monuments
Arch. Angelo Lisi / Dr. Nicola Lugeri
Presidenza del Consiglio dei Ministri
Dipartimento per i Servizi Tecnici Nazionali
Via Curtatone 3
I–00185 Roma
Italy

Should you have any questions concerning the comprehensibility of this questionnaire, please feel free to contact us (jobhub@uni-trier.de; cc: strubelt@bbr.bund.de; vdborg@unive.it; cc: sdec.italia@siu.dstn.pcm.it)

Thank you very much!

List of indicators chosen for the section "cultural cities, historic and religious buildings, archaeological sites"

A Indicators of cultural assets – significance

1

Name:	**Concentration of cultural sites/monuments**
Territorial context:	Regional
Type of indicator:	A-significance / qualitative
Measure:	Number of cultural assets (sites and monuments) per square km in the provincial area
Relevance:	Maps of territory and identification of areas with a high concentration of cultural assets
Range of values:	HIGH – AVERAGE – LOW

2

Name:	**Stratification**
Territorial context:	Regional
Type of indicator:	A-significance / qualitative
Measure:	Identification of architectural elements, decors and cultural references belonging to different periods situated in the province
Relevance:	The necessity to recover elements belonging to different periods or to restore the original fabric (freeing it from the intrusiveness of elements of no cultural or historical interest) demands the acknowledgement of systems of such composed assets
Range of values:	Number of elements belonging to different periods

3

Name:	**Tourist pressure on heritage city / site / monument**
Territorial context:	Regional
Type of indicator:	A-significance / quantitative
Measure:	Visitors / residents ratio; time trend
Relevance:	Approximates the stress provoked by tourism of the socio-economic fabric of the heritage cities, sites or monuments
Range of values:	$0 – \infty$

4

Name:	**"Touristicity" of the heritage city/ site / monument**
Territorial context:	Regional
Type of indicator:	A-significance / quantitative
Measure:	Tourist beds / resident ratio; time trend
Relevance:	Indicates the incidence of tourism in the social fabric and the tourist use of buildings
Range of values:	0 – ∞

5

Name:	**Extension of tourist region**
Territorial context:	Regional
Type of indicator:	A-significance / quantitative
Measure:	Ratio between the administrative area where the site is located (municipality, village) and the region in which a given percentage of the visitors to such site (e.g. 75%) stays for the night
Relevance:	Indicates the measure of the divergence between area of benefit by tourism and area of imposition of costs
Range of values:	0 – 100 % (square km *core* / square km *region*)

6

Name:	**Conflict level in the use of the land (general)**
Territorial context:	Regional
Type of indicator:	A-significance / qualitative
Measure:	Identification of a level of conflict in the tourist use of the cultural site / monument in terms of superposition of the tourist functions to other systems of fruition of the area.
Relevance:	It is based on a map of the territory which indicates the various systems of fruition of the area where the asset is located (e.g. urban mobility, extra-urban mobility, housing, production, education, tourism). The higher the levels of use of the site, the higher the odds that the tourist function hampers the full operation of the other fruition systems.
Range of values:	HIGH – AVERAGE – LOW

7

Name:	**Conflict level in the use of public transport**
Territorial context:	Regional
Type of indicator:	A-significance / quantitative
Measure:	Tourist use of public transport for urban or extra-urban mobility; weight of tourist production in the budget of transit company
Relevance:	This specific measure aims at the identification of the financial burden imposed by presence of the asset in the territory due to transport costs, direct and indirect (congestion – time costs)
Range of values:	0 - 100 %; 0 – ∞

8

Name:	**Tourist prices**
Territorial context:	Regional
Type of indicator:	A-significance / quantitative
Measure:	Comparison of the level and time trend of prices of tourist products respect to non-tourist goods
Relevance:	Indicates the maturity and the existence of oligopolistic markets in the tourist industry
Range of values:	0 - ∞

B Indicators of cultural assets – endangerment

9

Name:	**Presence of infrastructures nearby the heritage city / cultural site / monument**
Territorial context:	Regional
Type of indicator:	B-endangerment / qualitative
Measure:	Identification of infrastructures nearby the cultural site / monument
Relevance:	Infrastructure such as roads, bridges, railways, airports, on one hand facilitate the access to the asset, on the other require an assessment of their impact on the physical and aesthetic integrity of the asset and the surrounding landscape
Range of values:	HIGH – AVERAGE – LOW

10

Name:	**Presence of productive structures nearby the heritage city / cultural site / monument**
Territorial context:	Regional
Type of indicator:	B-endangerment/qualitative
Measure:	Identification of productive structures nearby the heritage city/cultural site/monument
Relevance:	The possibility of expansion and pollution represents a danger for the physical and aesthetic integrity of the asset. Such possibility must be evaluated in relation to the socio-economic characteristics of the area and the type of production
Range of values:	HIGH – AVERAGE – LOW

11

Name:	**Crime rate**
Territorial context:	Regional
Type of indicator:	B-endangerment / quantitative
Measure:	Absolute yearly no. of crimes against visitors, or % respect to total no. of yearly crimes in the area; time trend
Relevance:	A criminal environment against foreigners indicates a possible unbalance in the fruition of the asset and haphazard its economic performance
Range of values:	0 – ∞; 0 – 100 %

12

Name:	**Carrying capacity (socio-economic)**
Territorial context:	Regional
Type of indicator:	B-endangerment / quantitative
Measure:	Number of yearly violations of the socio-economic carrying capacity, to be quantified with a programming approach (Costa); time trend
Relevance:	The number (or the cumulated % measure) of violations of the socio-economic carrying capacity indicates the stress provoked by tourism on different sub-systems used by visitors and residents, and provides an indication of effective policies to release such stress
Range of values:	% days in year; cumulative yearly excess in % respect to optimal values

C Indicators of cultural assets - management

13

Name:	**Management / ownership regime**
Territorial context:	Region
Type of indicator:	C-management / qualitative
Measure:	The cultural site / monument or the area has to be classified on the base of the complexity of ownership and management structures (no. of institutions/levels of government which own or are entitled to manage the site)
Relevance:	Indicates the administrative coherence of the operational management of the site
Range of values:	Number of actors

14

Name:	**Decision-making regime**
Territorial context:	Region
Type of indicator:	C-management / qualitative
Measure:	The cultural site / monument or the area has to be classified on the base of the complexity of the decision-making process that regards the site (no. of institutions/ levels of government / informal actors / stakeholders involved in the decision-making process or determining to some extent its outcome)
Relevance:	Indicates the complexity of the decision-making process for the management, maintenance and fruition of the cultural heritage
Range of values:	Number of actors

15

Name:	**Controls on the development and existence of regional planning regarding heritage cities / sites / monuments**
Territorial context:	Regional
Type of indicator:	B-management/qualitative
Measure:	Identification of laws/regulations/procedures for the compatibility of tourist use of the cultural site
Relevance:	A standard indication of protection procedures
Range of values:	Yes – no

16

Name:	**Co-ordination in management of cultural assets**
Territorial context:	Regional
Type of indicator:	C-management / qualitative
Measure:	Identification of the existence of a *system* management of the cultural assets; map of the *holes* in the network of the co-ordinated management of the heritage
Relevance:	Management policies of the cultural heritage must be referred to the system of assets in an integral way. If some element of this system remains out, there might occur overlaps, inefficiencies and conflicts
Range of values:	% of assets in the area of reference belonging to the same organisational circuit of the resource in question

17

Name:	**Community involvement**
Territorial context:	Region
Type of indicator:	C-management / qualitative
Measure:	Identification of procedures /for the involvement of stakeholders (groups, associations, unions, etc.) in the decision-making regarding the site operations and interpretation
Relevance:	Indicates the level of coherence between the site and the social fabric in which it is inserted
Range of values:	Yes – no

Part I: Cultural Landscapes

answered by:

PD Dr. H. Job, University of Trier

for the German National Focal Point
September 1999

1.1 Please fill in the table. For an explanation of indicators see the background paper on cultural landscapes that has been presented at the Nijmegen meeting. In the last five columns, please circle the letter according to the system explained in the manual for this questionnaire: H (High) – A (Average) – L (Low). **For all data, please refer to the actual numbers as well as the percentage of decline or growth for the last decade.**

Number of indicator	Concerned indicator	Measuring instrument / subindicator "What does the indicator measure?"	Possible data sources "Where do wet get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Threshold / benchmarks	Significance
II.3	Land prices	Price in ECU/ m²	Reporting about building land and real property markets of the BBR Federal Statistical Office Germany (StBA): Purchase values of building land 1998[1] land survey authorities and review panels[2] of the *Länder*	NUTS 2 NUTS 3 NUTS 4	H **A** L H A	**H** A L H H	**H** A L H A	H **A** L A A	H A L L L
II.10a)	Manufacturing / mining activities	a) Number and location of industrial and mining enterprises	Federal Statistical Office Germany Series 4	"Mining and manufacturing" NUTS 2	H A **L**	H **A** L	H A L	H **A** L	H **A** L
II.10b)	Manufacturing / mining activities	b) Production capacity of the enterprises mentioned in a)	Federal Statistical Office Germany Series 4	"Manufacturing, mining and quarrying" NUTS 2	H A **L**	H **A** L	**H** A L	H A **L**	H **A** L
III.1	Utilized Agricultural Areas	Share of utilized area / total agricultural area	Federal Statistical Office Germany / EUROSTAT Statistical Offices of the *Länder*	NUTS 1 NUTS 2	H **A** L	**H** A L	H **A** L	**H** A L	**H** A L
III.2	Agricultural land-use types	Share of less favoured areas / utilized agricultural areas	EUROSTAT	NUTS 1	H A **L**	**H** A L	**H** A L	H **A** L	H A L
III.3a)	Agricultural land-use intensity	a) Number of organic farms (certified and in conversion)	Stiftung Ökologie und Landbau,Willer, H. University of Mannheim, Lukhaup, R.	NUTS 1 NUTS 3	H **A** L	H **A** L	**H** A L	**H** A L	H A L
III.3b)	Agricultural land-use intensity	b) Share of area under organic farming / total agricultural area	Stiftung Ökologie und Landbau, Willer, H. University of Mannheim, Lukhaup, R.	NUTS 1 NUTS 3	H **A** L	H **A** L	**H** A L	**H** A L	H A L
III.3c)	Agricultural land-use intensity	c) Share of rough pastures (natural grass-land, moors and heathland, agroforestry areas) / total agricultural area	Federal Statistical Office Germany Statistical Offices of the *Länder* CORINE Land Cover Institute of Ecological and Regional Development, Walz, U.	NUTS 1 NUTS 2, partly NUTS 3	H A L	**H** A L	**H** A L	**H** A L	H A L

continued

continued

Number of indicator	Concerned indicator	Measuring instrument / subindicator "What does the indicator measure?"	Possible data sources "Where do wet get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Threshold / benchmarks	Significance
III.4	Number and size of farms	Average size of agricultural holding	EUROSTAT Federal Statistical Office Germany Statistical Offices of the *Länder*	NUTS 1, partly 2 NUTS 1 NUTS 2, partly 3	H A **L**	**H** A L	**H** A L	H A L	H A L
III.5	Structure of farms	Share of farm holders of age 55 years and older	EUROSTAT	NUTS 1	**H** A L	**H** A L	H **A** L	H A L	H **A** L
III.6a)	Farm income	a) Family farm income per family work unit	Federal Statistical Office Germany Statistical Offices of the *Länder*	NUTS 1 NUTS 2 ("contribution margin standard")	**H** A L	H **A** L	H **A** L	H **A** L	H **A** L
III.6b)	Farm income	b) Share of direct subsidies in the income	EUROSTAT	NUTS 2	**H** A L	H A **L**	H A **L**	H A **L**	H A **L**
III.7	Agrochemical input	Amount of fertilizers (N) applied	EUROSTAT	NUTS 2 (only in prices)	H **A** L	**H** A L	H **A** L	**H** A L	H A L
III.9a)	Landscape management programmes	Number of agricultural holdings participating in agri-environment scheme (Regulation (EEC) No 2078/92)	EU GD VI BMELF FAL-BW	NUTS 1 NUTS 3	H **A** L	H **A** L	H A **L**	**H** A L	**H** A L
III.9b)	Landscape management programmes	Share of agricultural area under agri-environment scheme (Regulation (EEC) No 2078/92)/ total agricultural area	EU GD VI BMELF FAL-BW	NUTS 1 NUTS 3	H **A** L	H **A** L	H A **L**	**H** A L	**H** A L
III.9c)	Landscape management programmes	Number of holdings under voluntary set-aside	Different ministries for agriculture and environment of the *Länder* cf. IzR H. 5/6.1999	NUTS 2, partly NUTS 3 26 programmes on regional level	H A **L**	H **A** L	H A **L**	**H** A L	H A L
III.9d)	Landscape management programmes	Share of area under voluntary set-aside / total agricultural area	Different ministries for agriculture and environment of the *Länder* Niendieker, V. 1998 cf. IzR H. 5/6.1999	NUTS 2, partly NUTS 3 26 programmes on regional level	H A **L**	H **A** L	H A **L**	**H** A L	H **A** L
III.9e)	Landscape management programmes	Other types of programmes (number and expenditures in ECU / year)	Different ministries for agriculture and environment of the *Länder* Niendieker, V. 1998 cf. IzR H. 5/6.1999	NUTS 2, partly NUTS 3 26 programmes on regional level	H A **L**	H **A** L	H A **L**	**H** A L	H **A** L

1.2 In this table, there is some space provided for you to add indicators, that are not included in our list, but that seem worth to be regarded in your opinion. If you add any indicators, please use the same system as explained above for the last five columns.

Number of indicator	Your indicator	Measuring instrument "What does the indicator measure?"	Objective / purpose "Why do we need this indicator?"	Possible data sources "Where do we get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Threshold / benchmarks	Significance
	Mining area	Area under mining activities / total land or provincial area	Endangering	Land use statistics Series 3, 5.1 StBA	NUTS 3	**H** A L	H **A** L	H **A** L	H **A** L	H A L
	Landscape dissection	Share of undissected (remaining) area within "nearby" area or administrative region	Endangering by infrastructure	Overlaying of instructure by GIS	e.g. aggregation by NUTS 3 at any other geometrical level	H **A** L	**H** A L	H **A** L	H **A** L	H **A** L

1.3 Do you know case studies on cultural landscapes, that contain the following data (please mark the indicators with an "x", if they are aspects that are considered in the case study), especially on their determination or registration (compilation of an inventory)?

Case study	Age	Leisure and tourism	Formal shaping	Condition of preservation	Commonness	Regional identity	Persistency	Intensity of use (e.g. size of agricultural plots)	Landscape aesthetics	Experience / interpretation	Regional marketing of (agricultural products)
International Building Exhibition *Emscher Park* (Ruhr area)	X	X	X	X	X	X	X	X	X	X	X
Winegrowing regions of Rhineland-Platinate (steep situations – wine-growing landscapes)	X	X	X	X	X	X	X	X	X	X	X

1.4 How can we get further information on the case studies you mentioned in question 1.3?

Name of case study	Location	Year	Sources	Contacts
Ruhr area	Already in possession of the working group			
Wine-growing regions Rhineland-Palatinate	Already in possession of the working group			

Part II: Cultural Cities, Historic and Religious Buildings, Archaelogical Sites

answered by:

Claus-Peter Echter and Klaus Mittag
Assisted by Katja Bagge
Deutsches Institut für Urbanistik, Abt. Köln

including advice and comments of:
Dr. Gerhard Ongyerth
Bayerisches Landesamt für Denkmalpflege, München

for the German National Focal Point
September 1999

Legend

Possible data sources:

I = Institution

S = Source

CS No. = Number of case study* (⇒ part 2.3/4)

Information about data:

DF = Data format

TU = Territorial unit

MD = Measurement level of data

SD = Scale of data

Categories:

H = High

A = Average

L = Low

*__Note__: if necessary for scientific reasons, the case studies were supplemented with basic literature

2.1 Please fill in the table. For an explanation of indicators see enclosure 1 and the background-paper that has been presented at the Nijmegen-meeting. In the last five columns, please circle the letter according to the system explained in the manual for this questionnaire: H (High) – A (Average) – L (Low). For all data, please refer to the actual numbers as well as the percentage of decline or growth for the last decade.

Number of indicator (cf. enclosure 1)	Concerned indicator	Measuring instrument / subindicator "What does the indicator measure?"	Possible data sources "Where do we get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Significance	Threshold / benchmarks
1	Concentration of cultural sites / monuments	Number of cultural assets (sites and monuments) per square km in the provincial area	**I:** state conservation offices **S:** list of monuments / monument registers (number of sites only in some *Länder*, e.g. Bavaria), monument topography (=Projekt Denkmaltopographie Bundesrepublik Deutschland) **CS No.:** 1, 2, 7, 8, 18, 19, 21	**DF:** hardcopy, partly electronic **TU:** NUTS 1–3 **MD:** nominal, interval level **SD:** 1:5,000, 1:25,000, 1:50,000	H **A** L	**H** A L	**H** A L	**H** A L	**H** A L
2	Stratification	Identification of architectural elements, decors and cultural references belonging to different periods situated in the province	**I:** state conservation offices **S:** list of monuments / monument registers **CS No.:** 1, 2, 3, 4, 5, 6, 18, 19, 21	**DF:** hardcopy **TU:** NUTS 1 -3 **MD:** nominal, interval level **SD:** 1:5,000, 1:25,000, 1:50,000	H A **L**	**H** A L	H A **L**	**H** A L	H A **L**
3	Tourist pressure on heritage city / site / monument	Visitors / residents ratio; time trend	**I:** statistical offices, tourist offices **S:** no standard statistics, local countings and surveys, often only for some sites / monuments **CS No.:** 12, 13	**DF:** hardcopy, electronic **TU:** NUTS 3 **MD:** interval level **SD:** 1:5,000	H A **L**	H **A** L	H A **L**	**H** A L	H A **L**
4	"Touristicity" of the heritage city / site / monument	Tourist beds / resident ratio; time trend	**I:** statistical offices, tourist offices **S:** standard statistics and special local surveys **CS No.:** 11, 12, 13, 14, 15	**DF:** hardcopy, electronic **TU:** NUTS 3 **MD:** interval level **SD:** 1:5,000	H **A** **L**	H A L	H A L	H A L	H A L
5	Extension of tourist region	Ratio between the administrative area where the site is located (municipality, village) and the region in which a given percentage of the visitors to such site (e.g. 75 %) stays for the night	**I:** statistical offices, tourist offices **S:** no standard statistics, possibly local surveys	**DF:** hardcopy, electronic **TU:** NUTS 3 **MD:** interval level **SD:** 1:5,000	H A **L**	H **A** L	H A **L**	H **A** L	H A **L**
6	Conflict level in the use of the land (general)	Identification of a level of conflict in the tourist use of the cultural site / monument in terms of superposition of the tourist functions to other systems of fruition of the area.	**I:** possibly town-planning offices, offices for urban development planning **S:** local studies	**DF:** hardcopy **TU:** NUTS 3 **MD:** interval, ordinal level	H A **L**	H **A** L	H A **L**	H **A** L	H A **L**
7	Conflict level in the use of public transport	Tourist use of public transport for urban or extra-urban mobility; weight of tourist production in the budget of transit company	**I:** town-planning offices, transit companies **S:** possibly local countings and surveys	**DF:** hardcopy, electronic **TU:** NUTS 3 **MD:** interval level	H A **L**	H A **L**	H A **L**	H A **L**	H A **L**
8	Tourist prices	Comparison of the level and time trend of prices of tourist products respect to non-tourist goods	**I:** tourist offices, statistical offices **S:** no standard statistics, local studies and surveys, only for some products	**DF:** hardcopy, electronic **TU:** NUTS 3 **MD:** interval level	H A **L**	H A **L**	H A **L**	H **A** L	H A **L**

continued

continued

Number of indicator	Concerned indicator	Measuring instrument / subindicator "What does the indicator measure?"	Possible data sources "Where do we get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Significance	Threshold / benchmarks
9	Presence of infrastructures nearby the heritage city / cultural site / monument	Identification of infrastructures nearby the cultural site / monument	**I:** town-planning offices, survey offices, building office **S:** plans for land use and built-up areas, municipal base maps	**DF:** hardcopy, electronic **TU:** NUTS 3 **MD:** interval, nominal level **SD:** 1:5,000	H **A** L	H **A** L	H A **L**	H **A** L	H **A** **L**
10	Presence of productive structures nearby the heritage city / cultural site / monument	Identification of productive structures nearby the heritage city/ cultural site/monument	**I:** town-planning offices, offices for environmental affairs **S:** plans for land use and built-up areas, emission measurements, regional and local studies (e.g. International Building Exhibition *Emscher Park*) **CS No.:** 6, 7, 8, 9, 10	**DF:** hardcopy, electronic **TU:** NUTS 2, 3 **MD:** interval, ordinal level **SD:** 1:5,000	H A **L**	H **A** L	H A **L**	**H** A L	H A **L**
11	Crime rate	Absolute yearly number of crimes against visitors, or % respect to total number of yearly crimes in the area; time trend	**I:** town-planning offices, subordinal monument protection authority **S:** no standard statistics; only local studies **CS No.:** 16	**DF:** hardcopy; electronic **TU:** NUTS 3 **MD:** interval level **SD:** 1:5,000	H A **L**	H **A** L	H A **L**	**H** A L	H A **L**
12	Carrying capacity (socio-economic)	Number of yearly violations of the socio-economic carrying capacity, to be quantified with a programming approach (Costa); time trend	**I:** possibly offices for urban development planning **S:** no standard planning, no statistical basis; programming approach (Costa) unknown	**DF:** ./. **TU:** ./. **MD:** ./. **SD:** ./.	H A L	H **A** L	H A L	H **A** L	H A L
13	Management / ownership regime	The cultural site / monument or the area has to be classified on the base of the complexity of ownership and management structures (number of institutions/levels of government which own or are entitled to manage the site)	**I:** state conservation office **S:** monument registers, e.g. North Rhine-Westphalia, not in all *Länder*	**DF:** hardcopy, partly electronic **TU:** NUTS 1 **MD:** nominal, interval level	H **A** L	**H** A L	H **A** L	**H** A L	H A L
14	Decision-making regime	The cultural site / monument or the area has to be classified on the base of the complexity of the decision-making process that regards the site (number of institutions/ levels of government/ informal actors/ stakeholders involved in the decision-making process or determining to some extent its outcome)	**I**: associations, research instituts (e.g. *Deutscher Städtetag, Deutsches Institut für Urbanistik*) **S:** special surveys **CS No.:** 6	**DF:** hardcopy; electronic **TU:** NUTS 1, 3 **MD**: nominal, interval level **SD:** 1:5,000	H **A** L	H A L	H **A** L	H A L	H A **L**
15	Controls on the development and existence of regional planning regarding heritage cities / sites / monuments	Identification of laws/ regulations/procedures for the compatibility of tourist use of the cultural site	**I:** monument and owner-specific organisations (e.g. castle and lake administrations like *Bayrische Verwaltung der staatlichen Schlösser, Gärten und Seen*, churches, municipalities **S:** administration documents and reports	**DF:** hardcopy **TU:** NUTS 1,3 **MD:** nominal level	H **A** L	H **A** L	H **A** L	**H** A L	H **A** L

continued

continued

Number of indicator	Concerned indicator	Measuring instrument / subindicator "What does the indicator measure?"	Possible data sources "Where do we get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Significance	Threshold / benchmarks
16	Co-ordination in management of cultural assets	Management policies of the cultural heritage must be referred to the system of assets in an integral way. If some element of this system remains out, there might occur overlaps, inefficiencies and conflicts	**I:** monument and owner spe-cific organisations (e.g. castle and lake administrations, archaeological parks, churches, municipalities **S:** administration documents and reports **CS No.:** 6, 17	**DF:** hardcopy **TU:** NUTS 3 **MD:** nominal level	H A **L**	H **A** L	H A **L**	**H** **A** L	H A **L**
17	Community involvement	Identification of procedures /for the involvement of stakeholders (groups, associations, unions, etc.) in the decision-making regarding the site operations and interpretation	**I:** *Deutscher Städtetag, Deutsche Stiftung Denkmalschutz* (German foundation for preservation) **S:** special surveys; annualy awarded initiatives by the *Deutsche Stiftung Denkmalschutz* and state foundations **CS No.:** 6	**DF:** hardcopy **TU:** NUTS 0, 1-3 **MD:** nominal, interval level **SD:** 1:5,000, 1:25,000, 1:50,000	H **A** L	**H** A L	H **A** L	**H** A L	H A L

2.2 In this table, there is some space provided for you to add indicators, that are not included in our list, but that seem worth to be regarded in your opinion. If you add any indicators, please use the same system as explained above for the last five columns.

Number of indicator	Your indicator	Measuring instrument "What does the indicator measure?"	Objective / purpose "Why do we need this indicator?"	Possible data sources "Where do we get the data from?"	Information about data format and territorial unit / scale of data "What are the data like? How can we work with the data?"	Availability of data	Creditbility / comprehensibility	Comparability	Threshold / benchmarks	Significance
1.	Concentration of cultural sites/ monuments	Number of cultural assets/ number of buildings ratio in municipality area	Significant for the importance of the monument preservation in the municipality	see indicator		H **A** L	**H** A L	**H** A L	**H** A L	**H** A L
2.	Public financial subsidies	Amount of public financial sub-sidies/ number of monuments ratio	Important for long-term sustainability	**I:** state conservation offices, sub-ordinate con-servation authorities **S**: statistical reports	**DF:** hardcopy **TU:** NUTS 1 **MD:** interval level	H A **L**	**H** A L	**H** A L	**H** A L	H **A** L

2.3 Do you know case studies on built cultural heritage, that contain the following data (please mark the indicators with an "x", if they are aspects that are considered in the case study), especially on their determination or registration (compilation of an inventory)?

Case study	Age	Leisure and Tourism	Formal shaping	Condition of preservation	Commonness	Regional identity	Persistency	Intensity of use (e.g. size of agricultural plots)	Landscape aesthetics	Experience / interpretation	Regional marketing of (agricultural products)
1. Monument topography (*Denkmaltopographie*)	X		X								
2. Comprehensive inventory (*Großinventar*)	X		X								
3. Monument preservation plan (*Denkmalpflegeplan*)	X		X	X					X		
4. Monument preservation target planning	X		X	X					X		
5. Building age plan	X		X	X					X		
6. Survey on measures, activities and financial aids regarding monument preservation of municipalities	X		X		X			X			
7. Buildings of industry and technology	X		X		X			X			
8. Guide to the monuments of industry and technology	X		X		X			X			
9. Study of commercially used and protected monuments in Hamburg					X			X			
10. Building of engineering and technology	X			X			X				
11. City hall on the bridge, Bamberg		X									
12. Tourism plan, Bamberg		X									
13. Heritage and tourism		X									
14. Monument preservation and tourism		X									
15. Culture tourism in Europe, growth without limit		X									
16. The Heidelberg atlas of crime		X									
17. City marketing											X
18. Monument register of Bavaria	X		X								
19. List of Bavarian sites	X		X						X		
20. Cultural landscape ca-daster											
21. Archaeological layer atlas Cologne			X stratification								
22. Environmental information system of state (*Länder*) and regional planning in Bavaria stratification					X						

2.4 How can we get further information on the case studies you mentioned in question?

Name of case study	Location	Year	Sources	Contacts
1. Monument topography	NUTS 3	since 1981, until 1999 115 volumes have been pub-lished continu-ously	Claus-Peter Echter, Grundlagen und Arbeitshilfen städtischer Denkmalpflege in Deutschland, Berlin 1999 (Difu Beiträge zur Stadtforschung, Bd. 28) (= Fundamental principles and aids to urban monument preservation in Germany)	Claus-Peter Echter Difu Abteilung Köln Lindenallee 11 50968 Köln Phone: 0221–3771–145 e-mail: echter@difu.de
2. Comprehensive inventory	NUTS 3	continuously	Association of state preservationists (= Vereinigung der Landesdenkmal-pfleger)	Dr. Ursula Quednau Westfälisches Landesamt für Denkmalpflege Salzstraße 38 Erbdrostenhof 48143 Münster Phone: 0251–59109
3. Monument preservation plan	NUTS 3	since 1981, until 1999 24 plans have been published continuously	Claus-Peter Echter, Grundlagen und Arbeitshilfen städtischer Denkmalpflege in Deutschland, Berlin 1999 (Difu Beiträge zur Stadtforschung, Bd. 28)	Claus-Peter Echter Difu Abteilung Köln Lindenallee 11 50968 Köln Phone: 0221–3771–145 e-mail: echter@difu.de
4. Monument and preservation target planning	NUTS 3: Schleswig-Holstein	since 1972, until 1999 around 50 plans have been published con-tinuously	see above	Dr. Gerd Kaster Landesamt f. Denkmalpflege Schleswig-Holstein Schloß 24103 Kiel Phone: 0431–90670
5. Building age plan	NUTS 3: Bavaria	1972 – 1993, 12 plans	see above	Dr. Manfred Mosel Bayrisches Landesamt für Denkmalpflege Hofgraben 4 80539 München Phone: 089–2114–0
6. Measures and activities regarding monument preservation of muni-cipalities	NUTS 0: nation-wide	1985	Claus-Peter Echter, Denkmalpflegerische Maßnahmen, Aktivitäten und finanzielle Leistungen der Gemeinden, Berlin 1987.	Claus-Peter Echter Difu Abteilung Köln Lindenallee 11, 50968 Köln Phone: 0221-3771-145 e-mail: echter@difu.de
7. Building industry and technology	NUTS 0: nation-wide	1994	Axel Föhl, Bauten der Industrie und Technik, Bonn 1994.	Axel Föhl Rheinisches Amt f. Denkmalpflege Abtei Brauweiler Ehrenfriedstraße 19 50259 Pulheim Phone: 02234–98540
8. Guide to the monuments of industry and technology	NUTS 0: nation-wide	1992	Volker Rödel, Reclams Führer zu den Denkmalen der Industrie und Technik in Deutschland 1, Alte Länder, Stuttgart 1992.	Dr. Volker Rödel Dezernat Planung Referat für Denkmalpflege Braubachstraße 15 60311 Frankfurt am Main Phone: 069–212–3619
9. Study of commercially used and protected monuments in Hamburg	NUTS 3: City of Hamburg	1996	Studie zu gewerblich genutzten und gesetzlich geschützten Denkmalen in Hamburg, Hamburg 1996.	Dr. Volker Konerding Denkmalschutzamt Imstedt 20 22083 Hamburg Phone: 040–29188–2737
10. Buildings of engineering and technology of the 19th and early 20th century. Use and monument preservation	NUTS 3	1985	Claus-Peter Echter (ed.), Ingenieur- und Industriebauten des 19. und frühen 20. Jahrhunderts. Nutzung und Denkmal-pflege, Berlin 1985.	Claus-Peter Echter Difu Abteilung Köln Lindenallee 11 50968 Köln Phone: 0221–3771–145 e-mail: echter@difu.de
11. City hall on the bridge. Bamberg	NUTS 3: Bamberg	1998	Preservation of city image – tourism – sponsoring. Speech held at a conference of German urban monument preservationists in Cologne, September 1998.	Richard Schröppel Head of the subordinate monument protection authority Untere Sandstraße 32 96049 Bamberg Phone: 0951–871680
12. Tourism plan Bamberg	NUTS 3: Bamberg	1999 (in progress)		Andreas Christel Amt für Tourismus und Kongreßservice Geyerswörthstraße 3 96047 Bamberg e-mail: touristinfo@Bamberg.de

continued

continued

Name of case study	Location	Year	Sources	Contacts
				Reppel und Partner Wilhelmstraße 56 76275 Ettlingen Phone: (0 72 43) - 7 80 91
13. Heritage and tourism	NUTS 3: Trier	1998	Speech held at a conference of German preservationists in Berlin, February 1999.	Dr. Angelika Meyer Denkmalpflegeamt Rathaus / Postfach 34 70 D 54244 Trier Phone: (06 51) - 7 18 16 80
14. Monument preservation and tourism	NUTS 0: nation-wide	1987	Peter Roth: Die Bedeutung des historischen Denkmals für ausländische Touristen in der Bundesrepublik Deutschland, in: Denkmalpflege und Tourismus. International symposium from Nov. 26th to 29th 1986.	Europäisches Tourismus Institut GmbH an der Universität Trier Bruchhausenstraße 1 54290 Trier Phone: (06 51) - 97 86 60 e-mail: info@eti.de
15. Culture tourism in Europe, growth without limits	Europe	1993	Christoph Becker, Albrecht Steinecke: Kulturtourismus in Europa. Wachstum ohne Grenzen. Trier 1993. (ETI-Studien, Bd. 2)	Europäisches Tourismus Institut GmbH an der Universität Trier Bruchhausenstraße 1 54290 Trier Phone: (06 51) - 97 86 60 e-mail: info@eti.de
16. The Heidelberg atlas of crime	NUTS 3: Heidelberg	1998	Stadt Heidelberg, Der Heidelberger Kriminalitätsatlas – ein Kooperationsmodell zwischen Polizei und Kommunalverwaltung. Heidelberg 1999, (Schriften zur Stadtentwicklung)	Stadtverwaltung Heidelberg Marktplatz 10 69117 Heidelberg Phone: (0 62 21) - 5 80
17. City marketing	NUTS 3	1998	Busso Grabow, Beate Hollbach-Grömig, Stadtmarketing – eine kritische Zwischenbilanz. (Difu Beiträge zur Stadtforschung, Bd. 25)	Dr. Busso Grabow Beate Hollbach-Grömig Deutsches Institut für Urbanistik Straße des 17. Juni 111 Phone: (0 30) - 3 90 01- 0 e-mail: grabow@difu.de hollbach-grömig@difu.de
18. Monument register of Bavaria (*Denkmalliste, Denkmaldatei*) first step: monument data file second step: monument map of Bavaria	NUTS 1: Bavaria	1. work in progress 2. work at the beginning	paper Ongyerth, September 8th 1999	Dr. Gerhard Ongyerth Bayrisches Landesamt für Denkmalpflege Hofgraben 4 80539 München Phone: (0 89) - 21 14 - 0
19. List of Bavarian sites (Ensembles), ground plan 1:5.000	NUTS 1: Bavaria	permanent	paper Ongyerth, September 8th 1999	see above
20. Cultural landscape cadaster	NUTS 0: nation-wide	permanent	Klaus Fehn, Winfried Schenk, Das historisch-geographische Kulturlandschaftskataster – eine Aufgabe der geographischen Landeskunde. In: Berichte zur deutschen Landeskunde 2 / 1993, S. 479–488. Peter Burggraaff, Klaus-Dieter Kleefeld, Historische Kulturlandschaft und Kulturlandschaftspflege, Bonn – Bad Godesberg 1998, S. 55–107 (Bundesamt für Naturschultz, angewandte Landschaftsökologie, H. 20)	Prof. Dr. Klaus Fehn Dr. Andreas Dix Seminar für Historische Geographie Konviktstraße 11 Phone: (02 28) - 36 90 e-mail: a.dix@uni-bonn.de
21. Archaeological layer atlas Cologne (*Archäologischer Schichtenaltas Köln*)	NUTS 3: City center of Cologne	work in progress	paper by Ongyerth, September 8th 1999	Prof. Dr. Klaus Greve Dr. Chrystina Häuber Geographische Institute Abt. GIS und Fernerkundung Meckenheimer Allee 166 53115 Bonn Phone: (02 28) - 73 55 96 (Prof. Dr. Greve) Phone: (0 26 42) - 90 01 16 (Dr. C. Häuber) Internet: http://www.giub.uni-bonn.de/greve/projekte/fortuna/koeln_t.htm
22. Environmental information system of state and regional planning in Bavaria (Rauminformationssystem der Landes- und Regionalplanung in Bayern – Raumordnungskataster RIS-Bayern / ROK)	NUTS 1: Bavaria	permanent	paper Ongyerth, September 8th 1999	Dr. Reinhold Koch Bayrisches Staatsministerium f ür Landesentwicklung und Umweltfragen Referat 5/4 Phone: 089–92143438 e-mail: poststelle@stmlu.bayern.de

Comments

The questionnaire for the development of a Europe-wide, map-based information system for the cultural heritage within in the framework of a European spatial development concept is important and useful. However the presented questionnaire reveals some problems:

1. Approach and contents

From our point of view the questionnaire seems to be a bit “highbrow” and for monuments preservationists only partly answerable. The approach “Monument preservation and sustainable development” is recently well received among experts, but it does not represent the heart of monument presentation: registration, protection and preservation of monuments and ensembles. The aspect “tourism and monument preservation” weighs too heavily in the questionnaire whereas questions of use and re-use of monuments are of too little significance.
We could only give little information concerning the “archaeological monuments” because of the short amount of time we had to work on the questionnaire.

2. Methodological aspects

The following weaknesses are relevant:
a) Attempts of statistical quantification and mapping are stressed too heavily.
b) Missing homogeneity of indicators and aspects of valuation; mixing of not compatible aspects or of those that cannot be answered at the same time (e.g. time trends – territorial context; threshold values – benchmarks)
c) Some indicators are of too high complexity (e.g. socio-economic carrying capacity) and at the same time unprecisely operationalised (e.g. number of actors).
d) Unrealistic expectations concerning the availability of data.