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Preserving Europe's Heritage: Biodiversity, Landscape, and Agri-Cultural Policy in a Confederated Europe

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I. Introduction

Europe has been manicured by human settlement for thousands of years. There are very few wild spaces left. Yet much of Europe is still covered by open, natural spaces; green spaces which are etched with the evidence of human influence and which bear the markings of eras of socioeconomic history, but which continue in modern-day use as productive lands. Shaped and cultivated by cultural and agricultural activities these green spaces are often reservoirs of biodiversity and examples of unpremeditated sustainable use. However, because of their day-to-day human occupation, their agricultural productivity, or because of their lack of historical significance, or evidence of antiquity, these green spaces do not habitually become the subject matter of natural conservation laws or of historic preservation laws. Nevertheless, in Europe these areas are frequently home to a great stock of natural and cultural heritage; of agricultural biodiversity preserved through a sustainable use that concomitantly preserves a visual amenity in which Europeans find their cultural identities. These spaces, although in human use, are as deserving of legal protection as a piece of untouched wilderness or an ancient monument.

This Article identifies legal avenues within European Community law that exist or that need to be forged in order to provide legal protection and governance to these productive green spaces. It focuses exclusively on the agricultural sector and on the uncovering of the relationship between traditional patterns of environmentally sustainable agriculture and the European cultural identity as visualized through the agricultural landscape. This is approached via examination of three broad subject matters: a review of the Convention on Biological Diversity's (CBD's)¹ Ecosystem Approach²

determines whether that methodology is capable of providing governance for the historical and cultural components of the ecosystem; international and European historic preservation initiatives plant the seeds of the "landscape" model emerging through the European Landscape Convention (ELC)³; and finally, all elements of agricultural biodiversity conservation and agri-cultural⁴ landscape protection are accounted for and integrated into proposed changes to the Common Agricultural Policy (CAP).⁵

The CAP becomes the venue for the fusion of biodiversity conservation and cultural landscape preservation on a basic principle of European Community environmental law, integration, whereby environmental protection requirements must be integrated into the definition and implementation of all European Community policies.⁶ Finally, the importance and timeliness of the need to develop an agricultural landscape protection regime is set appropriately within the backdrop of a constitutionalized⁷ European confederation, currently in the process of reformulating its domestic agricultural policy⁸ which will, in turn, become the platform for the European Community position during the ongoing World

management" and "ecosystem-based approach." For the most part, the term "ecosystem approach" has been adopted as the norm, but no practicable distinctions are made when other terms are used.

3. C.E.T.S. No. 176 (2000).
4. The term "agri-cultural" is used here as a term of art that labels the overlay of normative concepts of culture onto the physical act of agricultural production that is common amongst small-holding farms throughout the European countryside.
5. Treaty Establishing a Constitution for Europe, §4, CIG/87/1/04, available at <http://www.europa.eu.int/constitution/index> [hereinafter EU Constitution]. This provides the treaty a basis for rulemaking on agricultural policy. The CAP has two pillars—income support and rural development—that are funded through the European Agricultural Guidance and Guarantee Fund. See Guidance Section, 1999, O.J. (L 160), EC No. 1259/99 (Rural Development), Guarantee Section, 2003, O.J. (L 270), EC No. 1782/03.
6. EU Constitution, *supra* note 5, arts. I-3.3, III-119.
7. The EU Constitution was signed on October 29, 2004 and will come into force when all Member States have ratified it.
8. The EU has recently completed a comprehensive review of the CAP and is now in the process of drafting legislation based on that review. See Mid-Term Review of the Common Agricultural Policy, COM(2002)394, Commission Proposal for Council Regulation, COM(2003)23. Among the most pressing issues facing the CAP and its expected reform in 2007 are whether it sufficiently promotes sustainable agricultural practices, whether environmental requirements are appropriately implemented through its structural mechanisms, and whether it will withstand GATT scrutiny after its reform and/or after the conclusion of Doha negotiations.

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1. 328 U.N.T.S. 247, 31 I.L.M. 1004 (1992).
2. The Ecosystem Approach was first adopted by the CBD's Conference of the Parties (COP) in Decision II/8, ¶ 1, available at <http://www.biodiv.org/decisions>. There are references throughout the literature to "ecosystem process-oriented approach," "ecosystem

Trade Organization (WTO) Doha⁹ negotiations on trade and subsidy reduction for primary agriculture goods.

Recognizing that agriculture has formed the backbone of European settlement and European socioeconomic development for centuries, the theme here is that any area-based conservation and governance scheme must be capable of protecting and managing all aspects of natural and biodiversity conservation, cultural and historical preservation, and productive and sustainable use.¹⁰ In short, I will address the questions: what is and where do we find European agriculture? How can an evolving Europe continue to protect and cultivate its traditional and sustainable agricultures patterns in the face of rapid internal and external change? And what legal mechanisms exist or otherwise need to be developed in order to preserve the diversity of biology, culture, and history that find their collective home inside the European agri-cultural landscape?

II. Nature Conservation Legislation in the European Community

Aiming only to building protected space is the policy of “building cathedrals in the desert.” It does not address the challenge of making viable the coexistence between humans and wildlife in all the space where humans already live and work day to day.¹¹

Together, the Wild Birds Directive¹² and the Habitats Directive¹³ form the two cornerstones of Europe’s area-based na-

ture conservation network, Natura 2000.¹⁴ The conservation area designation processes under the Wild Birds Directive and the Habitats Directive are scientifically based and ecologically driven mechanisms. Under the Habitats Directive special conservation areas¹⁵ are designated by Member States on the basis of ecological and biological criteria only.¹⁶ Indeed, the definition of conservation in the Habitats Directive is: “[M]easures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favorable status.”¹⁷ Standing on these two pillars, Natura 2000 magnifies the shortcomings of this science-only approach to nature conservation, an approach that has proved to be the fatal flaw in the localized implementation of Natura 2000 initiatives throughout the European Community.

In recognition of the extremely slow uptake¹⁸ of Natura 2000 the European Council held a conference in June 1998, at Bath, England, entitled “Natura 2000 and People: A Partnership” with the objective of understanding why implementation of the program was encountering so much local resistance. The conclusion reached was that local land users resisted designation efforts on the widely held beliefs that nature reserves brought severe restrictions on traditional economic and recreational activities. In the minds of the locals, the construction of a “nature museum” would bring a loss of control over the land and the preclusion of activities that had been connected with the land for many years. Area designation was thought to be nature to the exclusion of people; something tantamount to expropriation.¹⁹

However, the conference also concluded that it was the CAP that already possessed the infrastructure of a potentially successful conservation mechanism for other sorts of conservation projects.²⁰ In particular, CAP’s agri-environment measures were thought to be capable of funding projects that

European Wildlife and Natural Habitats (the Berne Convention), the purpose of which was to facilitate cooperation between European countries on conservation initiatives. The Habitats Directive operates in much the same way as the Wild Birds Directive: the killing of endangered animals and their habitats and the destruction of plants in the wild are prohibited and Member States are under a duty to develop a system of strict protection for listed species, *id.* arts. 12, 13. See also Council Decision 82/72/EEC, 1982 O.J. (L 38) in which the council formally adopts the Berne Convention for implementation.

9. See Doha Development Agenda, at <http://www.wto.org/>.

10. At the Dec. 22, 2003, meeting of the Environments Council, the council agreed on the need to focus on and implement the CBD particularly through the use of protected areas and ecological networks as integrated into the broader landscape and/or seascape and that a participatory, bottom-up Ecosystem Approach should be adopted to integrate biodiversity conservation and sustainable use practices into sectors of the commercial natural resource industry, such as agriculture, see Transcript of the Meeting of the Environments Council (Dec. 22, 2003), available at www.ueitalia2003.it/EN/ConferenzaIntergovernativa/.

11. Ferdinando Albanese, *European Cooperation and the Conservation of Europe’s Natural Heritage*, in INTERNATIONAL ENVIRONMENTAL LAW AND POLICY SERIES: CONSERVING EUROPE’S NATURAL HERITAGE: TOWARD A EUROPEAN ECOLOGICAL NETWORK 26 (Graham Bennett ed., Graham & Trotman 1994).

12. 1979 O.J. (L 103). The Wild Birds Directive was drafted in 1979, in the early stages of European Community integration under the European Economic Community (EEC) Treaty and aimed for the protection of all species of wild birds within the European territories. It prohibits the killing or capture of all wild birds and the destruction to their nests and eggs, *id.* art. 5. Member States have a duty to maintain the population of all bird species at ecologically, scientifically, and culturally appropriate levels, *id.* art. 2. Member States are also required to identify and designate special protection areas based on ornithological habitat criteria for the preservation of bird species diversity, *id.* arts. 3, 4. See also Case C-44/95, Regina v. Secretary of State for the Environment, 1996 E.C.R. 3805 where the European Court ruled that economic considerations were not to play a part in a Member State’s special protection areas designation decision. While the Wild Birds Directive has long been the lawful basis for an area-based approach to nature conservation, the directive has also forced to the forefront other significant factors. The directive requires the conservation of bird species in the European territory of the Member States in recognition of the fact that bird species conservation is a trans-frontier issue. Accordingly, the directive has been recognized for its ability to raise conservation issues to an international level through its requirement that Member States implementing the directive approach the matter with an international mindset and with a sense of shared responsibility. See also JAN JANS, EUROPEAN ENVIRONMENTAL LAW 411 (Europa Law Publishers 2000).

13. 1992 O.J. (L 206). The Habitats Directive is the European Community’s implementation of the Convention on the Conservation of Eu-

14. Art. 3.1, 1992 O.J. (L 206).

15. The special protected areas of the Wild Birds Directive are also included, *id.* arts. 3.1-3.3.

16. *Id.* arts. 3, 4 and Annex III, which identifies the scientific and ecological criteria for area designation. *Id.* art. 1(a).

17. *Id.* art. 1(a).

18. See generally LUDWIG KRAMER, EC ENVIRONMENTAL LAW 135ff (Sweet & Maxwell, 4th ed. 2000), where the author describes local pressures from hunters, fisherman, farmers and their concerns that area designation would severely limited their traditional uses.

19. Conclusions of the Bath Conference: *Natura 2000 and People: A Partnership* (1998), available at http://europa.eu.int/comm/environment/nature/nature_conservation/useful_info/documents_publications/pdf/conf.pdf.

20. The Conference highlighted the success of a biotope restoration project in Emilia-Romagna, Italy. This project directed CAP agri-environment funds to local farmers for the restoration of natural and man-made hedges, wetlands, woods, ponds, and marshy meadows. Coupled with the funding for the agricultural restoration was education for the farmers about the effects of their efforts and suitability of other measures for the creation and management of habitats for wild species. See European Commission Environment DG’s Nature Newsletter, Special Bath Conference Edition of June 1998, available at http://europa.eu.int/comm/environment/news/natura/special_en.pdf.

could effectively employ local land users for ongoing conservation efforts through continued human use of the land. Natura 2000, therefore teaches that in order to develop an effective mechanism for the conservation of productively used land, the first question to be asked and answered is: *how* should we conserve the land? Or put another way, by what methodology shall we govern preserved land?

III. Ecosystem Management

In 1995, the Conference of the Parties (COP) developed the Ecosystem Approach as a framework for governments and institutions to use in the development of policies and legislation for implementation of the CBD.²¹ While the term was not well defined at the time, it was generally considered to be a holistic approach to conservation and sustainable resource use with the capacity to take into account all socioeconomic and cultural factors connected to the resource.²² In 2000, the COP formally adopted the Ecosystem Approach using 12 working principles and 5 points of operational guidance.²³ The 12 working principles are²⁴:

(1) The objectives of management of land, water, and living resources are a matter of societal choice.²⁵

(2) Management should be decentralized to the lowest level.²⁶

(3) Ecosystem managers should consider the effects on adjacent and other ecosystems.²⁷

(4) The economic context of ecosystems should be understood and managed.²⁸

21. COP, Decision II/8, ¶ 1, *supra* note 2.

22. *Id.*

23. *Id.* Decision V/6.

24. The German case study entitled *Ecosystem Research Wadden Sea* was an interdisciplinary project that implemented the ecosystem approach in order to obtain a better understanding of the structures and functions of the Wadden Sea ecosystem with the ultimate aim of developing a better approach for the area's conservation and management. Through ongoing monitoring, the project generated scientific and other intersectoral information that was used to evaluate the appropriateness and efficacy of the ecosystem approach as an area-based conservation and governance technique. The study identified strengths and weakness, and suggested several refinements to the ecosystem approach on a principle-by-principle basis. See Report by the Federal Environmental Agency, *Berlin, 2000*, at <http://www.biodiv.org/doc/case-studies/cs-ecofor-de-waddensea.pdf>. Explanatory text to the 12 principles and 5 guidelines taken from this study.

25. Stakeholders, especially the local people affected by centralized decisions, should be involved at the outset. Their input should be received and their experience should be understood and implemented. Decisions should be made cooperatively and with their support and understanding. This requires communication and dialogue with the local area users. For this, publicity is key. *Id.*

26. The very stakeholders affected should be those retained for the day-to-day implementation of the management scheme of the area. This way, local characteristics are meaningfully considered and upper management is better apprised. Area-based steering groups may be necessary to facilitate between local managers and scientists and there ought to be linkages between sectors and between local managers and upper management. *Id.*

27. This requires large-scale understanding of the larger eco-structures and of the larger socioeconomic factors. This, in turn, requires more scientific and other intersectoral research and more interregional and international cooperation. *Id.*

28. The economic needs of local, affected people must be considered. Tourism must be assessed for both its negative (increased traffic) and positive (revenue) impacts. Eco-labeling for products produced

(5) The structure and function of the ecosystem needs conservation to ensure continuation of ecosystem services.²⁹

(6) Ecosystems must be managed within the limits of their functioning.³⁰

(7) The Ecosystem Approach should be undertaken at the appropriate spatial and temporal scales.³¹

(8) Management should set long-term objectives in recognition of time lags to the effects of activities on the ecosystem.³²

(9) Change is inevitable; management requires flexibility.³³

(10) There ought to be balance and integration between conservation and use.³⁴

(11) All forms of relevant information should be considered, including scientific, indigenous, local, and innovations and practices.

(12) All relevant sectors of society and science should be considered.³⁵

The five operational guidelines are:

(1) Focus on the functional relationships within an ecosystem including and particularly: resilience

from the ecosystem through sustainable methods promotes market awareness and garners market acceptance for increased prices. *Id.*

29. Ecologically sensitive and high nature value areas should be left totally unexploited as legal preserves. In areas subject to use, regulations on seasons and technology are required. Precautionary approaches should be applied to activities outside the ecosystem but which can affect the ecosystem. *Id.*

30. The study suggested that this does not add anything to the basic principles of wise use and sustainability and recommends eliminating the principle or collapsing it into principle 5 or operational guidance 1. *Id.*

31. The terms "spatial" and "temporal" need clear definition for implementation. Managers need to be able to discern between local and wide-scale management objectives and seasonal or long-range actions. Defining these terms would facilitate the implementation of principle 5, which demands the total reservation of protected and unexploited zones for adequate conservation of the whole ecosystem structure and function. *Id.*

32. The attainment of long-term objectives requires long-term strategic plans that can only be achieved through adequate dialogue with stakeholders. Stakeholders need to understand that conservation measures are beneficial to them in the long run. This requires the ability to communicate with stakeholders, which in turn might take place through working groups and also through adequate publication and politicization of conservation issues. *Id.*

33. While this is true, the study suggested that a distinction ought to be drawn between changes that result from natural processes and changes that are precipitated by human activities. "Natural changes" should be observed and learned from and "unnatural changes" (climate change, invasive species) should also be very closely scrutinized but clearly discerned from natural changes. *Id.*

34. The requirements necessary to implement this principle are not unlike those of principle 5. There ought to be binding regulations that reflect scientific knowledge along with boundaries between areas of commercial and recreational use and pure conservation or non-human use. There ought also to be dialogue with stakeholders to assure their understanding of the imposed limitations. *Id.*

35. The study collapsed principles 11 and 12. Success in these principles represents the first step toward consensus between nature lovers, scientists, politicians, and nature-based income earners. The study recognizes that serious conflicts will occur when affected groups are not informed or when decisions are taken without all appropriate input. Cross-sectoral working groups facilitate communication (perhaps with the use of mediators) that may serve to anticipate and resolve conflicts before they actually happen. Local and traditional knowledge should be learned from, used, and implemented. *Id.*

to and effects of biodiversity loss; causes of biodiversity loss and determinants of local biodiversity in management decisions.³⁶

(2) Enhance benefit-sharing.³⁷

(3) Use adaptive management practices.³⁸

(4) Carry out management actions at the appropriate scale with decentralization to the lowest level.³⁹

(5) Ensure intersectoral cooperation.⁴⁰

The Ecosystem Approach is an area-based governance technique for the integrated management of ecosystems that promotes the conservation and sustainable use of biodiversity in an equitable way, taking into account all scientific and human factors. It places heavy emphasis on ascertaining both the ecological and biological organization of the ecosystem, and the dynamic interaction between the cultural and traditional human activities that take place in connection with the ecosystem. Properly implemented, ecosystem management will likely address some of the obstacles encountered by the conservation regime attempted by Natura 2000.

However, there exists yet another layer of biodiversity that is not accounted for by the CBD, by its definitions of biodiversity⁴¹ or ecosystem,⁴² nor by the Ecosystem Ap-

proach. It is that layer of biodiversity that is much less biological in scope and which includes the diversity of human characteristics that have evolved over time in connection with localized natural resource use. Across Europe, there is a patchwork of ethnic, cultural, and linguistic traditions that have been cultivated by long-term, localized resource use; varying traditions and living histories, endemic and seemingly tailor-made to the ecologically demarcated regions in which they have evolved. In a symbiotic relationship with localized biodiversity, these human activities have been shaped by nature and have shaped nature, manuring the land, creating the landscape, and cultivating agricultural biodiversity.

Ecosystem management is based on a broad definition of the terms ecosystem and biodiversity and is a regime that seeks to admit the cultural aspects of biodiversity use through its application. But culture cannot be dissociated from history. And the conservation of a biologically diverse area, which is used day to day by humans and has been through the ages, necessarily requires considerations of the history of that human use. Accordingly, the conservation of the land in which a cultural heritage grew up is the preservation of a living history. While the Ecosystem Approach requires accommodation of an area's cultural aspects, it does not ask us to probe deeper; it does not ask about the connection between biodiversity and history or about historical biodiversity use. The question now becomes: how do we conserve the *history* of nature?

IV. International Historic Preservation Law

At the international level, historic preservation efforts are undertaken via the Convention Concerning the Protection of the World Cultural and Natural Heritage (WHC).⁴³ Adopted in 1972, the WHC sought, as its goal, the creation of a global regime for the protection of cultural and natural properties.⁴⁴ In 1992, in response to criticisms that the WHC operated an unbalanced designation system, which favored historical or cultural properties over natural ones,⁴⁵ it developed a sub-category of the natural classification and called it the "cultural landscape."⁴⁶ This is an area "illustrative of the evolution of human society and settlement over time,"⁴⁷ reflecting "the interaction between human kind and its natural environment."⁴⁸ Cultural landscapes ought to "reflect spe-

micro-organism communities and their non-living environment interacting as a functional unit."

36. The *Wadden Sea* study noted that the biological processes having effect on biodiversity are the least understood aspect within any ecosystem management regime. Nevertheless, sustainable management must be pursued in the absence of full scientific knowledge. A precautionary approach is advisable, particularly with the prospects of invasive species or genetically modified organisms. The possible introduction of these life forms requires an impact assessment. As with principle 5, unexploited and protected zones need to be established and monitored in order to expand the scientific knowledge base of the ecosystem. Ongoing monitoring at various area-based points is essential. *Id.*
37. The economic effects on local peoples and ecosystem users must be considered and ought to be enhanced. This can be accomplished through eco-labeling of products produced in a sustainable way, nature taxes on recreational activities, and sharing of profits generated through the use of species. *Id.*
38. The ongoing scientific monitoring must consider the causes of environmental change. There ought also to be ongoing monitoring of the socioeconomic impacts as well. Information gatherers should be closely linked with administrative decisionmakers. There should be an element of co-management between users, conservationists, and scientists to better harmonize different interests. *Id.*
39. A bottom-up administration of even large sized areas with many different interests and issues will produce a better account of the ecological particularities of the region. Although it is recognized that in large areas that cross international borders, jurisdictional issues may block decentralization to some degree. One suggestion is to increase the area of legal preserves in order to bring more of the area under regional administrative jurisdiction. Both centralized guidelines and decentralized implementations are essential. *Id.*
40. For multijurisdictional ecosystems, international agreements on management should be accomplished, and should be binding. A centralized project funding agency should exist that can direct monies appropriately across various sectors. The first step in the set-up of the management is to address questions of logistics, data management, and the very application of ecosystem models. This should be coordinated intersectorally between scientists, implementing institutions, and funding agencies. *Id.*
41. The CBD defines biological diversity at Article 2 as:
The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystem.
- CBD art. 2, *supra* note 1.
42. *Id.* art. 2. An ecosystem is "a dynamic complex of plant, animal and

43. 1037 U.N.T.S. 151, 11 I.L.M. 1358 (1972), available at <http://whc.unesco.org> [hereinafter WHC].
44. Cultural heritage properties include monuments of art or architecture, and groups of buildings, which are of outstanding universal value from the point of view of history, art, or science. Properties of cultural heritage may also include sites which house the works of man or combined works of man and nature, and which are of outstanding universal value from an historical, aesthetic, ethnological, or anthropological point of view. Natural heritage areas may consist of physical and biological formations which are of outstanding universal value or which constitute the habitat of threatened species, or which are generally of outstanding value from the point of view of science, conservation, or natural beauty. *See id.* arts. 1, 2.
45. At present, there are 730 properties on the World Heritage List and of those, 563 are cultural, and only 144 are natural. *See* <http://whc.unesco.org>.
46. WHC, Operational Guidelines, ¶¶ 36-38, *see id.*
47. *Id.* ¶ 36.
48. *Id.* ¶ 37.

cific techniques of sustainable land-use,⁴⁹ that have developed within a “spiritual relation to nature”⁵⁰ and which can be “helpful in maintaining biological diversity.”⁵¹

Regardless of these classifications however, the operational and implementation requirements of the WHC fail to make it an appropriate tool for the governance of the types of natural areas under human use in Europe. With only 23 of the total 730 listed properties being of mixed cultural and natural heritage,⁵² the WHC’s conservation framework is built for an international status designation that is premised on no-use and is irreversible short of total deterioration.⁵³ These factors make WHC designation likely to either revive the kind of resistance that Natura 2000 encountered or leave an area entirely without protection if it lacks the prerequisite characteristic of outstanding universal value that is required by the WHC for designation.

A. Historic Preservation Laws in Europe

A brief review of English and Austrian historic preservation laws will illustrate how historic preservation law and environmental conservation law are not as far apart in Europe as they are internationally, and will also set the backdrop for the development of the landscape model; the eventual playground of the Ecosystem Approach and the answer to the question of how to preserve the history in nature.

The modern preservation movement in England emerged during the industrial revolution with the recognition that rapid industrialization was destroying historic streets and buildings.⁵⁴ Fueled primarily by nationalistic ideals, preservationists rallied for the protection of old and medieval buildings and prehistoric remains.⁵⁵ In 1882, the Monuments Protection Act⁵⁶ established a regime of monument designation, maintenance, and repair based on the landmark’s historical, traditional, or artistic interest with a corresponding duty of public guardianship.⁵⁷ After World War II, to rectify the destruction wreaked upon England by aerial bombardment, the 1944 enactment of the Town and Country Planning Act⁵⁸ authorized the preparation of lists of buildings of special architectural or historic interest for the purpose of assisting local authorities making planning deci-

sions.⁵⁹ In 1953, the Historic Buildings and Ancient Monuments Act⁶⁰ established a system of grants for the acquisition, maintenance, and repair of historic buildings.⁶¹

But English preservation efforts were not focused on buildings and landmarks alone. The mid-19th century Romantic period saw an emergence of enthusiasm for history, which took place within a broader cultural shift toward an appreciation for nature. Modern poetry and paintings representing idyllic countryside scenes and natural landscapes sparked an interest in the sublimity of nature in an increasingly urbanized public.⁶² Particularly in England, public curiosity in the natural countryside and its common heritage began to emerge as a result of topographical writings dedicated to the earthen works of Stonehenge and Avebury.⁶³ To reflect these concerns, the Monuments Protection Act listed 29 earthworks and stone circles for protection.⁶⁴ It was thought that the value of these works was derived not just from the part they played in history, but also from the “harmonious way in which they merged into traditional settings.”⁶⁵ By 1931, the Ancient Monuments Act⁶⁶ authorized local authorities to establish “preservation schemes”⁶⁷ to protect not just the monuments themselves but “any area comprising or adjacent to the site of the monument.”⁶⁸

In addition to the increased attention paid to earthen works and their natural settings, the urbanized English public also began to develop an appreciation for the natural heritage value of the country house with its manicured gardens and countryside vistas.⁶⁹ The National Trust Country Houses Scheme was inaugurated in 1937,⁷⁰ to permit country estate owners to donate their houses with amenity lands and gardens to the National Trust, which would maintain the entirety of the property in exchange for public viewing access.⁷¹ In 1953, the Historic Buildings and Ancient Monuments Act,⁷² which had so far provided the monies for the upkeep of the house itself, also made provision for the upkeep of the house’s amenity lands.⁷³

49. *Id.* ¶ 38.

50. *Id.*

51. *Id.*

52. See <http://whc.unesco.org/>. Moreover, the different classifications are administered separately, by different organizations. Natural properties are managed by the World Conservation Union (IUCN) and cultural properties, by the International Council on Monuments and Sites (ICOMOS).

53. WHC, Operational Guidelines, *supra* note 46, ¶¶ 46-56.

54. The oldest legal measures for preservation are only just over 100 years old. See Michael Hunter, *Introduction*, in *PRESERVING THE PAST: THE RISE OF HERITAGE IN MODERN BRITAIN* (Michael Hunter ed., Allan Sutton Publishers Ltd. 1996) [hereinafter Hunter]. NORMAN WILLIAMS JR. ET AL., *READINGS IN HISTORIC PRESERVATION: WHY? WHAT? HOW?* pmb. 5 (Center for Urban Policy Research 1983).

55. Robert Garvey, *Europe Protects Its Monuments*, in *PRESERVING THE PAST: THE RISE OF HERITAGE IN MODERN BRITAIN* 26 (Michael Hunter ed., Allan Sutton Publishers Ltd. 1996).

56. 45 & 46 Vict., c. 73. (Eng.).

57. *Id.* §2. For listing of designated monuments, see *id.*, sched. The Act also made provision for public monies to owners of designated buildings, *id.* §3.

58. 7, 8, & 9 Geo. 6., c. 47, §§1-8 (Eng.).

59. *Id.* §§42-44.

60. 1 & 2 Eliz. 2, c. 49, §§4-6 (Eng.).

61. *Id.* §§4-6.

62. Hunter, *supra* note 54, at 4. For explorations on the emergence of the landscape concept from artistic representations, see generally SIMON SCHAMA, *LANDSCAPE AND MEMORY* (HarperCollins Publishers 1995); RENZO DUBBINI, *GEOGRAPHY OF THE GAZE: URBAN AND RURAL VISIONS IN EARLY MODERN EUROPE* (Lydia G. Cochrane trans., Univ. of Chicago Press 2002); JOHN BRINCKNERHOFF JACKSON, *DISCOVERING THE VERNACULAR LANDSCAPE* (Yale Univ. Press 1984); JOHN MICHAEL HUNTER, *LAND INTO LANDSCAPE* (Pitman Press 1985).

63. Hunter, *supra* note 54, at 3.

64. Monuments Protection Act of 1882, 45 & 46 Vict., c. 73., sched. (Eng.).

65. Hunter, *supra* note 54, at 3.

66. 21 & 22 Geo. 5c. 16 (Eng.).

67. *Id.* §1.

68. *Id.*

69. Apart from wanting to access the gardens and countryside settings of the Country House, the English public had also become voyeuristic about the lifestyles of the landed aristocracy. See Peter Mandler, *Nationalizing the Country House*, in *PRESERVING THE PAST: THE RISE OF HERITAGE IN MODERN BRITAIN* (Michael Hunter ed., Allan Sutton Publishers Ltd. 1996) [hereinafter Mandler].

70. *Id.* See also National Trust, at <http://www.nationaltrust.org.uk/> historicproperties.

71. Mandler, *supra* note 69.

72. 1 & 2 Eliz. 2, c. 49, §§4-6 (Eng.).

73. *Id.* §4.

A brief review of the Austrian historic preservation experience reveals a similar divide between individual landmark preservation and environmental conservation,⁷⁴ which also evolved to merge modernly in the construct of the landscape. Austrian preservation law began in the 1850s, under the Hapsburgs with the establishment of the Imperial and Royal Central Commission for the Investigation and Preservation of Built Monuments.⁷⁵ While no legislation was enacted, building authorities were ordered to abide by the opinions of the Imperial and Royal Central Commission with respect to the restoration or demolition of historically or artistically valuable buildings. In 1923, the Law of the Protection of Monuments was passed,⁷⁶ but because of the Act's limited definition of monument, no protection was afforded to anything that was not a singular landmark.⁷⁷ Groups of buildings, ensembles, and townscapes were all excluded.⁷⁸ Regardless of this, in the early 1970s, the Federal Monument Office published what was considered "a step toward a broader concept of conservation, going beyond individual monuments,"⁷⁹ the Atlas of Historical Zones of Protection.⁸⁰ The first volume of the atlas documented 166 entire townscapes and their component parts as being in need of protection. The second volume, distributed in 1981, was devoted entirely to the city of Vienna and the third volume covered an additional 100 communities. The atlas was distributed to local officials and promoted as an instrument for the integration of ensemble and townscape protection in local planning and development.⁸¹

In 1995, a federally funded national research program was launched called the Sustainable Development of Austrian Cultural Landscapes (ALR).⁸² The broad aim of the project is to identify, inventory, and understand Austria's cultural landscapes. One of the main uses of the project's assessments is guidance for planning authorities,⁸³ but its

other objectives reveal a more holistic design: the development of instruments for the definition of a cultural landscape; the establishment of cross-frontier cultural landscape classifications; the elaboration of an indicator set that can be used to describe and monitor sustainable land use systems within a landscape; the development of fully integrated monitoring systems with parameters for ecology, economics, and social, political and technical measurements; the compilation of geographical data showing different grades of sustainability in landscapes, and also the establishment of a Europeanwide network of cultural landscape research.⁸⁴

As a component of the ALR's mandate to inventory the cultural landscape of Austria, the project is generating numerous townscape and landscape mapping collections. Exemplifying the project's insightful understanding of the human to nature relationship, these mappings inventory building groupings and the open spaces they inhabit as single, geo-cultural units.⁸⁵ Units are described on the basis of their ecological features (flora and fauna and soil), their structural elements (biotops, orchards), their rural and vernacular settlements and population, and their human activities and influences (agricultural, water systems, and forestry).⁸⁶ The ALR project has produced over 50 studies and mapping projects since its launch and several of these studies will be examined in more detail below.

The English and Austrian efforts are illustrative of a European understanding that the preservation of historical landmarks within natural settings is not merely as physical action, empty of spiritual or moral overtones. It is a preservation of the overlapping and dynamic relationships between people, their living cultures, their history, the lands they occupy and, moreover, the scenic views these relationships produce.⁸⁷ These are examples of an acknowledgment of the emerging psychological construct of the landscape as the physical and visual space where history and nature meet each other and shape each other. Europe is ready for a Europeanwide system that preserves, not just either a landmark or a piece of land, but a system that preserves and celebrates the symbiosis between natural heritage and cultural heritage in the agriculturally productive countryside.

V. The European Landscape

Europe is a patchwork continent, rich with a diversity of ecologies and biologies, and rich, too, with a diversity of regions, nations, ethnicities, cultures, languages, and histories. This heritage of biological and human diversity is the product of thousands of years of human settlement and agricultural cultivation, which has left virtually no area of Europe, untouched

74. This is most markedly illustrated by the fact that monument preservation falls to the jurisdiction of the Federal Republic whereas nature protection belongs to the authorities of the provincial Länder.

75. ROBERT A. STIPE & MARGARET I. WILL, *HISTORIC PRESERVATION IN FOREIGN COUNTRIES: FEDERAL REPUBLIC OF GERMANY, SWITZERLAND, AUSTRIA* 95 (U.S. ICOMOS 1984) [hereinafter STIPE & WILL].

76. *Id.* at 99.

77. *Id.*

78. *Id.*

79. *Id.* at 104.

80. *Id.*

81. *Id.*

82. The research initiative runs a comprehensive website called Austrian Landscape Research (ALR) available on the Internet at <http://www.klf.at/>. ALR is sort of a centralized coordinator of projects which are delegated down to research teams at various universities and other institutions. The study adopted its definition of "cultural landscapes" from the WHC.

83. See generally Hans Peter Jeschke, *Inventorying the Cultural Landscape and Cultural Heritage: A Methodological Case Study*, in *LEGAL AND FINANCIAL ASPECTS OF ARCHITECTURAL CONSERVATION* 39 (Marc Denhez & Stephen N. Dennis eds., Dundurn Press 1997). Three aspects of the cultural landscape are to be considered in the development of planning policies: planning sites are present within landscapes, do not exist in isolation, and site-oriented planning policies require revision so as to include elements of landscape sensitivity; the cultural landscape exists in both urban and rural areas; while different planning problems exist in urban and rural areas, it is essential to recognize the importance of cultural landscape in both; and a scale-sensitive framework is needed: planning policies need to be sufficiently flexible so as to allow interpretation of the cultural landscape over a range of scales. *Id.* at 39-41.

84. *Id.* at 34.

85. *Id.* at 34-37.

86. *Id.* at 39.

87. Jaroslave Kilian, *Laws, Heritage, and Democratic Society*, in *LEGAL AND FINANCIAL ASPECTS OF ARCHITECTURAL CONSERVATION* 4 (Marc Denhez & Stephen N. Dennis eds., Dundurn Press 1997). When considering district or ensemble preservation efforts this cultural vista concept is even more prominent. Robert Stipe, *A Comparison of American and European Experience*, 1 *PACE L. REV.* 567, 573 (1982). Robert Stipe has argued that in contrasting the American experience, see generally *City of New Orleans v. Pergament*, 198 La. 852 (La. Sup. Ct. 1941), *City of Santa Fe v. Gabel-Skogmo Inc.*, 73 N.G. 410 (N.M. Sup. Ct. 1964), where district preservation is underscored by values associative of architecture and history, European district preservation efforts have placed more emphasis on aesthetics, scenic quality, and views.

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by human impact.⁸⁸ Etched onto the land is the physical evidence of this heritage, green engravings that speak to us of history and tradition. Faced with the challenge of developing a framework for the conservation and management of these green spaces and the preservation of their component historic features, the Council of Europe⁸⁹ drafted the ELC.⁹⁰

On July 19, 2000, the ELC was opened for signature to the 41 Council of Europe's Member States. At the Ministerial Conference on Landscape Protection in Florence on October 20, 2000, 18 countries signed the ELC, and the number is now up to 29.⁹¹ The ELC entered into force on March 1, 2003, after 11 signatories had ratified.⁹² The ELC is a comprehensive instrument devoted to the conservation, management, and improvement of European landscapes. It is to be implemented by domestic public authorities through the adoption of environmental policies and other legal instruments on planning and cultural promotion at local, regional, national, and international levels.⁹³ The strength of the ELC lies in its flexible approach to both landscape identification and landscape management. It provides coverage for a range of landscapes, from the ordinary to extraordinary through the use of a range of governance approaches from strict conservation up to actual creation.⁹⁴

88. Martin Holgate, *Keynote Address: Conserving Europe's Natural Heritage: Toward a European Ecological Network* (International Environmental Law and Policy Series No. 29, 1994).

89. The Council of Europe is distinct from the 25-member European Union. It aims to "achieve a greater unity between its members" and "to act as a political anchor for Europe's post-communist democracies." See Council of Europe, at <http://www.coe.int>.

90. European Landscape Convention (ELC), C.E.T.S. No. 176 (2000). The ELC is available on the Internet at <http://www.nature.coe.int/English/main/landscape/conv>. Before moving to an analysis of the ELC, the Convention for the Protection of the Architectural Heritage of Europe is also of note. This Convention was the initiative of the Council of Europe and was finalized in 1985. It represents the confirmation, at an international level, that historic preservation in Europe requires an international framework and cooperation. Article 1(3) of this Convention gives an expansive meaning to the term "sites" and includes "the combined works of man and nature, being areas which are partially built upon and . . . are of conspicuous historical, archaeological, artistic, scientific, social or technical interest." The commentary to the Convention indicates that the term "sites" was intended to encompass "landscaped areas" as "distinct from areas of purely unspoiled nature." However, the scope and application of the legal protection offered by this Convention is much surpassed by the ELC, Explanatory Report on the Convention for the Protection of the Architectural Heritage of Europe 11 (Council of Europe 1986).

91. Belgium, Bulgaria, Croatia, Denmark, Finland, France, Italy, Lithuania, Luxembourg, Malta, Moldova, Norway, Portugal, Romania, San Marino, Spain, Switzerland, and Turkey were the original 18 and the subsequent 11 were: Armenia, Azerbaijan, Cyprus, Czech Republic, Greece, Ireland, Macedonia, Poland, Slovenia, Sweden, and Ukraine.

92. Ten ratifications were required for the coming into force. See ELC, *supra* note 90, art. 13. The 11 ratifications were: Croatia, Denmark, Ireland, Lithuania, Macedonia, Moldova, Norway, Romania, San Marino, Slovenia, and Turkey. Armenia, Belgium, Czech Republic, and Poland have recently ratified bringing that number to 15.

93. ELC, *supra* note 90, art. 3.

94. The ELC provides a continuum of approaches for landscape governance, identified through three regimes: protection, management and planning. Landscape protection involves "actions to conserve and maintain the significant or characteristic features of a landscape, justified by its heritage value derived from its natural configuration and/or from human activity," ELC, *supra* note 90, art. 1.d. Landscape management is "action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to guide and harmonize changes which are brought about by social, economic and environmental processes," *id.* art. 1.e. Finally, landscape planning is "strong forward-looking action to enhance, restore or create landscapes," *id.* art. 1.f. Landscape protection would be ap-

The ELC defines the term landscape very broadly as: "[A]n area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."⁹⁵ At the core of the landscape concept is the spiritual relationship between people and nature. While a landscape contains both natural and cultural features, identifying a landscape requires the observer to focus in on the relationship between these features. A landscape is more than mere scenery or appearance. It is more than just physical; it is also metaphysical, housing various social and artistic associations.⁹⁶ A landscape is also a vista, which requires an observer. It is an *area perceived by people* to have been shaped by the interaction of nature and human activity; it is no such thing without both the relationship between people and nature, and also a person capable of appreciating that relationship. A landscape, therefore, is home to nature, to culture, to their relationship, and to the relationship of the observer to nature and culture.

Landscapes are much more than just areas of "nature plus people." Landscapes are places where nature and people have interacted *over time*⁹⁷; where the past and present meet and where the sum of all past changes to nature can be observed.⁹⁸ They are natural settings, engraved with ancestral use, the ongoing, modern-day use of which preserves a piece of history and reminds us of our heritage. This observable ancestry gives the natural setting its identity,⁹⁹ and with an identity, a space becomes a place. And place with identity is the answer to the question: "Where are you from?" In sum, a landscape is much more than an area of land or a piece of nature; it is a place where observers and modern-day users come to know the source and the historical setting of their cultural identity.

VI. Ecosystem Management and the Landscape

As noted above, ecosystem management is an integrated, area-based conservation and governance regime that is premised on a mere "nature plus people" approach. The Ecosys-

appropriate for a region's, high-value and special protected areas. Landscape management would be more suitable for most areas, which "though not outstanding, still retain their distinctive qualities." Landscape planning (or creating) would be targeted at areas, which have been severely degraded by agriculture or other human use, which are less favored or which are abandoned or in danger of becoming abandoned. Adrian Phillips, *Practical Considerations for the Implementation of European Landscape Convention*, Landscape Conservation Law: Present Trends and Perspectives in International and Comparative Law 21 (IUCN Environmental Policy and Law Paper No. 39, 2000) [hereinafter Phillips].

95. ELC, *supra* note 90, art. 1.a.

96. Phillips, *supra* note 94, at 18.

97. For explorations on the meaning and significance of the built environment and on the relationship between culture and nature, see generally SIMON SCHAMA, *LANDSCAPE AND MEMORY* (HarperCollins Publishers 1995); RENZO DUBBINI, *GEOGRAPHY OF THE GAZE: URBAN AND RURAL VISIONS IN EARLY MODERN EUROPE* (Lydia G. Cochrane trans., Univ. of Chicago Press 2002); JOHN BRINCKNERHOFF JACKSON, *DISCOVERING THE VERNACULAR LANDSCAPE* (Yale Univ. Press 1984); JOHN MICHAEL HUNTER, *LAND INTO LANDSCAPE* (Pitman Press 1985); *THE INTERPRETATION OF ORDINARY LANDSCAPES* (D.W. Meinig ed., Oxford Univ. Press 1979); EDWARD RELPH, *RATIONAL LANDSCAPE AND HUMANISTIC GEOGRAPHY* (Croom Helm Ltd. 1981); WILLIAM NORTON, *EXPLORATIONS IN THE UNDERSTANDING OF LANDSCAPES: A CULTURAL GEOGRAPHY* (Greenwood Press 1989).

98. Phillips, *supra* note 94, at 18.

99. *Id.*

tem Approach accommodates the interaction of humans and nature but, as discussed earlier, it does not provide either for the management of the visual amenities of an ecosystem, nor for the component historical parts of an ecosystem. It is premised largely on the management of a relatively pristine and naturally occurring setting and not on the governance of an entirely manicured and human-designed landscape. For a broader and more adept application, the Ecosystem Approach requires a sensitivity for cultivated ecosystems that evidence a living history. In Europe, this means that the Ecosystem Approach requires acknowledgment of the cultural features of agricultural land, or otherwise of the agri-cultural landscape.

A. Case Study: Biodiversity, Landscapes, and Economic Services of Agriculture and Forestry in the Austrian Alpine Region

The questions now become: how do we find the landscape in an ecosystem? What relationship do they have to each other? Perceiving the landscape in the ecosystem ought only to be as difficult as understanding the other component natural and human aspects of the ecosystem. Normally, research undertaken with an Ecosystem Approach model requires scientific assessment of the ecology and biology of the area along with cultural and social studies of the human use of the area. Accordingly, understanding a landscape requires historical assessments of the older features of the ecosystem and the traditional use of those features along with psychological assessments of the impacts that the visual amenities have on the inhabitants and observers of the landscape. Another case study from Austria's alpine region is instructive on how the construct of the landscape can be built right into the definition and understanding of the ecosystem.¹⁰⁰

The primary aim of the study was to evaluate and value the biodiversity capacity of the ecosystem by inventorying the biological and ecological components of the ecosystem and assessing the value of the whole landscape. The study was confined to Austria's alpine region, which covers almost 55,000 square kilometers of land, and over 65% of Austria's federal territory. Human settlement came to this region in the 4th century B.C. when forested areas were claimed for arable land. Small settlements were characterized by alpine crop farming and pasture husbandry for butter and cheese. Settlement increased dramatically from the Middle Ages onward when the main agricultural practices were pasture and livestock husbandry. Today, the remaining forest now covers only 30% of the total Austrian alpine area.

To determine the ecological and biological valuation of the ecosystem, the study identified various natural services provided to humans by the biodiversity of the region, and in turn, the human contribution to the evolution of those services. The study found that the Alpine's forested and pasture lands provide natural protection to humans against avalanches and landslides, microclimate stabilization, air pollution control, recreation and tourism, as well as habitat for wild plant and animal species and finally, landscape scenery. In turn, the human activity of sustainable mountain

farming provides for the conservation of soil and water systems, food security, social and economic activity, and also the design and maintenance of the cultivated landscapes of the region. The study also identified key pressures on biodiversity including: production-subsidized agriculture; forestry; hunting; demographics; pollution; and tourism.

The second component of the study was an evaluation of the landscape with all its component man-made and natural features as an indicator of ecosystem biodiversity. The landscape was measured by the degree of human influence over time: hemeroby.¹⁰¹ Hemeroby is an integrative measurement tool of the impact of all human influences on an ecosystem throughout history. Landscapes which are classified as ahemerobic are wild places that have experienced little or no human influence. Oligo-hemerobic landscapes have some very minor man-made intrusions in them such as minor resource removal. Meso-hemerobic landscapes have been subject to some human management such as occasional clearing and ploughing and slight fertilization. Relatively far from natural, eu-hemerobic landscapes are characterized by activities such as drainage, fertilizer and pesticide application, deep ploughing and contain features such as hedges, shrubs, rough meadows, and managed pastures. By and large, most European agri-cultural landscapes fall somewhere between oligo- to eu-hemerobic, as did the region under study here. Using hemeroby as an indicator of biodiversity, the study discussed a rough gradient between the degree of naturalness of an area and the level of biodiversity. Upon the premise that landscapes contribute to biodiversity, the study drew conclusions on the overall monetary value of the ecosystem based on linkages between landscapes and biodiversity and tourism, agricultural production, and forestry. The study also drew general conclusions about the link between landscapes and biodiversity and the nonmonetary value of the ecosystem in terms of its power to bring humans into a spiritual connection with nature.

The project described earlier, ALR, launched in 1995, has also begun to add many more layers to the understanding of the landscape within the ecosystem.¹⁰² ALR seeks to develop scientific and sociological indicators for the measurement (and eventual implementation) of sustainable development and to preserve biodiversity within Austria's rural areas, bearing in mind the quality of life of the affected population. The interdisciplinary framework of the research project employs several hundred researchers from both the social and natural sciences on the premise that neither area of study can independently achieve the goal of sustainability.¹⁰³

ALR's first phase began in 1995, and ended in 1999. During this phase, the project was divided into five thematic research fields, each with several sub-component and case study-specific projects called "modules." The five thematic fields were: indicators of sustainability; safeguarding biodiversity and quality of life; perception, genesis, and change in the cultural landscape; supraregional and regional control and implementation; and multifunctionality and utilization conflicts. At the end of 1999, ALR entered

100. Biodiversity, Landscape, and Ecosystem Services of Agriculture and Forestry in the Austrian Alpine Region: Case Study on the Applied Evaluation of Biodiversity. Organization for Economic Cooperation and Development (OECD) Working Party on Economic and Environment Policy Integration Working Group on Economic Aspects of Biodiversity, at <http://www.biodiv.org/doc/case-studies/cs-ecofor-at-alpine.pdf>.

101. The word comes from the Greek hermeros, meaning cultivated, tamed, or refined.

102. ALR, *supra* note 82.

103. *Id.* Researchers from wide range of disciplines work conjunctively. Researchers are drawn from fields including: biology; ecology; philosophy; communication science; folklore; political science; psychology; geography; history; landscape planning; landscape ecology; economics; and business management.

its second phase and several more thematic research fields were commissioned. Some of these research themes include prehistorical development—time dynamics, societal infrastructure, city and surrounding countryside, and sustainable rural development.

A quick description of a selection of modules will reveal how the landscape concepts of historicity and aesthetics fit comfortably with the Ecosystem Approach aspects of ecology, culture, and economics. The modules selected and briefly summarized below represent a nice cross-section of the range of research that has been collected by ALR.

ALR	Phase One
Research Field	Indicators of Sustainability
Theme	Landscapes have long memories and changes always have a long-term impact. Close monitoring of the elements and structures of cultural landscapes is an important key to sustainability.
Module Title	Which attributes of landscape structure can be used as indicators of sustainable land use?
Focus	To develop reliable indicators for the evaluation and long-term monitoring of cultural landscapes. To identify processes in landscapes caused by spatial structures and to provide an explanation for these processes—best described by the catchphrase “linking pattern with processes.”
Comments	A second project was appended to this module and was called “Mapping and Visualizing Landscape Structure of Austrian Cultural Landscapes.” This project used traditional land-use and anthropogenic influence maps overlaid results on a wider spatial conception of the “patchwork” of the landscape in order to identify the “ecological meaning” of different landscape structures. The results included the development of several gradient structures: <ul style="list-style-type: none"> • between the spatial arrangement of the landscape and its component ecological functions • between species richness and heterogeneity • between the complexity of the landscape “patchwork shapes” and heterogeneity • between landscape structure and ecologically sustainable agriculture. These two studies show that in the same way that Austrian agricultural patterns have designed the landscape, so the landscape has shaped Austrian culture and cultural agriculture practices. As well, the ecological sustainability of the agricultural land is a function of both landscape and culture.
ALR	Phase One
Research Field	Fundamentals of Safeguarding Biodiversity and Quality of Life
Research Theme	Ascertaining the biological diversity of Austrian cultural landscapes as a yardstick of an intact environment
Module	Quality of Life and Environmental Behavior: Everyday Consensus and Conflicts
Focus	The aim of the project was to demonstrate the conflict between landscape protection and the needs of the people living in the landscape. An open forum workshop invited citizens of the project region to discuss the connection between landscape and quality of life. Interviews were conducted in which the citizens were asked about their quality of life (living, work, environment), their opinions on environmental problems, their attitude towards the landscape in which they live and their wishes for the future. A sociological investigation was conducted to examine if the citizens recognized the need to act in an environmentally friendly way in their every day lives.

ALR	Phase Two
Research Field	Biodiversity and Quality of Life
Module	The Value of Small Meadow Lands in Landscapes From an Ecological, Agro-Economic, and Human Sensory Perspective
Focus	Landscape scale (spatial isolation, connectivity) and patch-scale (disturbance) are linked to factors that influence the flora and fauna diversity and species composition in meadow islands in agricultural landscapes. An interdisciplinary approach will be applied to develop a model for the sustainable management of meadow islands which includes: <ul style="list-style-type: none"> • Communication: better appreciation of meadow islands by local inhabitants and the wider public in general • Economics: agro-economic assessments of whether ecology management recommendations are affordable to landowners and the viability of subsidization • Planning: integration of cultural elements in landscape revitalization • Conservation and Tourism: examines relationships between the conservation value of meadow patches and the sensory experiences of visitors • Education: environmental educators effect information transfer between science and the local community
ALR	Phase Two
Research Field	Societal Infrastructure
Module	Fast Food—Slow Food: Sustainable Landscape Development by Sustainable Food Chain Management
Focus	The study considers how the everyday eating habit decisions of consumers and the food industry affect the landscape. It looks at the entire food chain from production through to processing, distribution, preparation, consumption and disposal, and aims to show how food supplies and consumption can be organized so as to ensure that the cultivated landscape is sustainably.

ALR highlights the basic components of historicity and aesthetics that underline the landscape construct. It also highlights the dynamic interaction between the historical and cultural aspects of landscapes and the physical components of the ecosystems in which they occur, and how the construct of the landscape can be built into the understanding of the whole ecosystem. And still, ALR also seeks to understand untold aspects of landscape quality management such as: the landscape user’s appreciation of the need to behave in environmentally sound ways; the political use of the landscape; the correlation between the inhabitants’ quality of life and the landscape quality; and the correlation between food consumption and production decisions and the landscape quality. The resonance of ALR research is in its demonstration of how the landscape can be assessed, measured, and cared for within a whole ecosystem analysis and indeed how, in turn, the ecosystem is itself a component of the landscape.

VII. Agricultural Reform on the World Stage: An International and Domestic Obligation

The ALR research initiative is not itself a governance regime nor an implementation action; it is only an initiative aimed at developing methodologies for interpreting the cultural landscape, which themselves become instruments for regional planning actions. Domestic legislation is required,

particularly in light of the obligations to which many European States have committed themselves under the CBD and the ELC. However, at the dawn of the constitution that is moving Europe toward its ever-closer union, the European Union (EU), with its broad legislative authority over agriculture and environment ultimately bears the mandate of developing policies and regulations in support of agricultural landscape conservation. Reform to the CAP as an implementation mechanism for agricultural landscape and biodiversity conservation is now an imperative.

The international calls for agricultural reform are piercing. In preparation for the World Summit on Sustainable Development (WSSD) in Johannesburg, United Nations (U.N.) Secretary-General Kofi Annan's water, energy, health, agriculture, and biodiversity (WEHAB) initiative began identifying the linkages between sustainable agriculture practices and biodiversity conservation.¹⁰⁴ The Agriculture Framework identified numerous necessary reforms to current worldwide agricultural practices and in particular called for an "agricultural revolution" that is "small-farmer" and "low-input-based."¹⁰⁵ While primarily directed at developing nations, the WEHAB reforms ought to be considered by the EU. Specific recommendations included: the Ecosystem Approach be implemented into agricultural practice management¹⁰⁶; policies and institutions be put in place to improve the well-being of rural people and link rural development with natural resource management¹⁰⁷; externally purchased inputs be reduced to promote soil fertility and the long-term productivity and resilience of natural resources¹⁰⁸; and organic agriculture be promoted.¹⁰⁹

In June 2002, at the same time that the WEHAB group was deliberating its findings, the Council of Europe held a conference in Paris in cooperation with the French government and the U.N. Environment Program (UNEP). Within the Pan-European Biological and Landscape Diversity Strategy,¹¹⁰ the conference made a Final Declaration on the Conservation and Sustainable Use of Biological and Landscape Diversity in the Framework of Agricultural Policies and Practices.¹¹¹ The final declaration emphasized the causal relationship between agricultural biodiversity loss and the replacement of traditional agricultural practices with modern intensified practices—an observation that resonates well with the WEHAB call for a smaller farmer, low-input agricultural revolution.¹¹² The conference also made recommendations for agricultural reform specifically

104. See generally Framework for Action on Agriculture; Framework for Action on Biodiversity and Ecosystem Management and the Summary of the Partnership Discussions on WEHAB, at http://www.johannesburgsummit.org/html/documents/wehab_papers.html.

105. Chairperson's summary of the partnership plenary discussion on WEHAB, at 7, A/Conf.199/16/Add.2.

106. Framework for Action on Agriculture, *supra* note 104, at 11.

107. *Id.* at 12.

108. *Id.*

109. *Id.*

110. See generally Council of Europe, *supra* note 89 and subsequent links to "biodiversity."

111. Final Declaration of the High-Level Pan-European Conference on Agriculture and Biodiversity, at http://www.coe.int/t/e/Cultural_Cooperation/Environment/Nature_and_biological_diversity/.

112. *Id.* pmb1. In addition to the WEHAB papers, a reform based on sustainability to world agricultural policies was also encouraged in the WSSD's, *Plan of Implementation* ¶¶ 6, 25, 86, and *esp.* 38, at <http://www.johannesburgsummit.org/html/documents/undocs.html>.

via the CAP that called for: the identification, management, and support of high-value nature areas within agricultural ecosystems; the implementation of agri-environmental programs to protect biodiversity and landscape values; the phasing out of environmentally harmful subsidies with the replacement of biodiversity-enhancing subsidies; the promotion of organic farming; the use of general agricultural practices that conserve and wisely use biodiversity and landscape diversity and also the implementation of international agreements including the ELC, the CBD Program of Work on Agricultural Biodiversity,¹¹³ and the European Council's own Biodiversity Action Plan for Agriculture.¹¹⁴

A. Agricultural Reform on the World Stage: Trade

Until the 1994 Uruguay Round and the signing of the Agreement on Agriculture,¹¹⁵ trade in primary agricultural products has had a long history of exclusion from the application of the General Agreement on Tariffs and Trade (GATT).¹¹⁶ GATT commenced a process of tariffication for agricultural products and created a regime for phasing out domestic supports and subsidies along with a concurrent system of categorical exceptions. Domestic subsidies that fall within the permissible exception are called "Green Box" measures and must have almost no trade- or production-distorting impacts in order to qualify. Typical Green Box supports include government-funded programs relating to research on food security, infrastructure, regional development, and environmental protection. Direct payments to producers may be permissible if decoupled from production and in the form of income support or insurance. It has been through these exceptions that the European Council's CAP has survived GATT scrutiny.¹¹⁷

In November 2001, at the WTO's Fourth Ministerial Conference, the Doha Declaration was signed to provide a mandate for further trade liberalizing negotiations on a broad range of subjects, including agriculture. Specifically, WTO Members have committed to ending negotiations by January 1, 2005, which have achieved "reductions of, with a view to phasing out, all forms of export subsidies and substantial reductions in trade-distorting domestic support."¹¹⁸ With respect to the Green Box, current Doha negotiations are revolving around questions of its size—is it too small such that it excludes domestic support programs that are legitimate and nontrade-distorting such as those aimed at environmental protection, rural development, or animal welfare? Or is the box already too big, allowing for supports that are well disguised but in fact trade-distorting?

The questions for the EU are whether a reformed CAP will continue to withstand GATT scrutiny and, assuming a shrinking Green Box, how best can it implement sus-

113. CBD, *supra* note 1.

114. See generally *supra* notes 89 and 110 and accompanying text.

115. To view the text, see WTO, at http://www.wto.org/english/docs_e/legal/.

116. As a result of waivers granted under Article XXV.5 of the GATT (1947) by a 2/3 majority vote agricultural goods have been excluded from the application of GATT obligations and have been subject to various import quotas around the world.

117. For a thorough discussion on the application of the Uruguay Round to CAP, see THE EUROPEAN UNION AND WORLD TRADE LAW 165-80 (N. Emiliou & D. O'Keefe eds., John Wiley & Sons 1996).

118. Doha Declaration, art. 13, at <http://www.wto.org/english/thewto>.

tainability, agricultural biodiversity, and landscape conservation policies through CAP without running afoul of GATT obligations?

VIII. Reforming CAP

The European farmer has traditionally been the guardian of the countryside. His practices of food production have designed and manicured Europe's heritage of natural vistas. In turn, the variety of agricultural practices across Europe has yielded a heritage of biological and cultural diversities that can no longer be ignored in Europe's constitutional discussions nor in the reformation of its agricultural and environmental policies.

Returning to the question posed at the very beginning of this Article: how do we protect the natural settings of Europe with their component biological, cultural, and historical diversities but which are in modern day-to-day use as productive agricultural land? The appropriate governance framework is the Ecosystem Approach, with its capacity to provide integrated management for biodiversity conservation in conjunction with ongoing human adaptive use. The Ecosystem Approach, however, also requires a component of historic preservation if it is to be applied to the agricultural ecosystems of Europe. Preserving the cultural ancestry of the European countryside must be done through a landscape model, a construct that has been given an international treaty basis in the ELC. The European Council retains broad primary jurisdiction over agricultural and environmental legislative action and a residual jurisdiction over cultural initiatives.¹¹⁹ As Europe moves toward a confederated and constitutionalized system, the authority of the European Council to legislate in these areas will increase, as will its responsibility to facilitate harmonized Member State implementation of the CBD and the ELC. The method by which to facilitate such implementation is the CAP.

The CAP was developed by the European Economic Community in a post-war Europe with the pressing concerns of food security and market stabilization forefront in mind.¹²⁰ Through a series of production-based price supports, the CAP was largely successful in achieving its economic objectives; prices have stabilized at reasonable levels and agricultural incomes have improved favorably.¹²¹ However, the attainment of these goals has come at very high environmental and cultural costs. Traditional production-driven price supports coupled with modernization have resulted in the intensification and mechanization of agricultural practices, the excess use of chemical inputs, the

specialization of single crops (often for export only), and the re-parcelization of holdings into increasingly larger tracts.¹²² These factors in turn are having adverse environmental and cultural effects. There is widespread acknowledgment that the CAP is the primary threat to the use of sustainable agricultural practices and that the qualitative and quantitative production methods it promotes are the greatest impediments to agricultural biodiversity conservation.¹²³ There is also acknowledgment that the intensified, mechanized, and nonmixed use forms agriculture promoted by the CAP are responsible for the increasing loss of traditional European agri-cultural practices. The loss of traditional European farming in turn brings the loss of the visual amenities of the European countryside, the loss of the historical and diverse relationships between Europeans and their productive lands, the loss of the agri-cultural landscape.¹²⁴

Reform to the CAP is imminent. On January 21, 2003, as a result of an ongoing review process, the European Commission tabled a proposal for a council regulation aimed at overhauling the CAP.¹²⁵ The Preamble to the draft legislation envisions a reformulated CAP aimed at preserving the diversity of agricultural systems and regions throughout Europe and promoting the ecological and economic sustainability of agricultural practices.¹²⁶ The European Commission believes that this new CAP formulation would continue to be Green Box-compatible under GATT obligations and would set an appropriate platform for an EU position during the ongoing Doha negotiations on trade in the agricultural sector.¹²⁷ On September 29, 2003, the council tabled new legislation¹²⁸ that introduced a "single farm payment," that

122. The Fifth Environmental Action Program, 1993 O.J. (C 138); The Sixth Environmental Action Program, 2002 O.J. (L 242); The Biodiversity Action Plan for Agriculture, COM(2001)162 final, and The Pan-Biological and Landscape Diversity Strategy, *High-Level Pan-European Conference on Agriculture and Biodiversity*, held at Paris in June 2002 European Community found through Council of Europe portal website on the Internet at <http://www.coe.int>.

123. The European Community's Biodiversity Action Plan for Agriculture, *id.* and the Fifth Action Program, *id.* and the Sixth Action Program, *id.*, all affirm the link between unsustainable agricultural practices, biodiversity loss and the promotion of such unsustainable practices by the CAP. It also affirms that the conservation of biodiversity and the preservation of traditional European farming systems are directly dependent on the method of agricultural production employed.

124. See also Phillips, *supra* note 94, at 19-22 who argues that modern development which has been "large in scale, insensitive in design and dominating in its impact has degraded the quality of the landscape" and that this is particularly true of the high intensified and mechanized forms of agriculture promoted through CAP. Moreover,

the accumulation of CAP policies which pursued industrial agriculture, coupled with pollution and misuse of natural resources and the abandonment of less favored agricultural areas has created pressures on the landscape which degrade the distinctive features of the landscape, cause diminution of the natural and cultural values inherent to the landscape and destroyed the connection between people and land.

And finally, that "many of Europe's landscapes were created through traditional patterns of land use, agriculture and traditional European ways of life." Accordingly, "the survival of the landscape depends upon the conservation and continuation of the lives which created them."

125. Proposal for a Council Regulation establishing common rules for direct support schemes under the common agricultural policy and support schemes for producers of certain crops, COM(2003)23 final.

126. *Id.* ¶ 1.

127. *Id.*

128. 2003 O.J. (L 270), EC No. 1782/03.

119. EU Constitution, *supra* note 5, arts. I-17, III-280.

120. CAP has its treaty basis in Section 4, Articles III.225-232 of the EU Constitution Treaty, *id.* These provisions provide the legal basis for rulemaking on agricultural production and production requirements. The objectives were primary economic. Article III.227 named the goals of the CAP to be: increased productivity; food security; and market and price stabilization. While the economics of agriculture were surely the primary reasons for CAP's existence, the treaty did not neglect the European cultural relationship to food production. Article III.227.2(a) requires that the application of CAP will take account of "the social structure of agriculture" and the differences in the practice of agriculture across different structural and natural agricultural regions.

121. For a thorough review of the operation of the price support system, see generally DERRICK WYATT & ALAN DASHWOOD, *THE SUBSTANTIVE LAW OF THE EEC 221* (Sweet & Maxwell 1980). See also Mid-Term Review of the CAP, *supra* note 8.

is now decoupled from production quantity, calculated on hectare size, and conditional upon cross-compliance with other environmental requirements, including soil and climatic conditions, existing farming systems, land use, crop rotation, farming practices, and farm structures.¹²⁹

While these reforms are a step in the right direction, they do not fundamentally shift the CAP in the direction of sustainability and biodiversity conservation. And they are nowhere near the issue of landscape protection. At this point, an appropriate move requires recognition of the symbiosis between traditional agri-cultural production, conservation of agricultural biodiversity, and cultivation of the landscape. They are linked in fact and linked through the land and they cannot be effectively addressed severally or via segregate legal mechanisms. The WEHAB group tapped into this idea with the recommendation that agricultural production be managed under the Ecosystem Approach. The Council of Europe specifically recommended that the CAP provide support for high-value nature areas, that agri-environmental measures consider landscape characteristics, and that the CAP be used to implement the CBD and the ELC. As much as the CAP is the greatest threat to European agri-culture, it is also capable of being the most appropriate source of remediation. A ready-made, functional, and operational legal institution, the CAP is the easiest and most convenient forum through which to implement an agri-culture and nature management regime.

CAP can be amended to implement an agri-cultural biodiversity Ecosystem Approach yet remain within the structures that the European Commission believes will still pass GATT muster. At a framework level, the CAP requires a full adoption of the Ecosystem Approach for agricultural governance. In turn, the Ecosystem Approach must itself include not just biodiversity conservation but also cultural heritage and historic preservation criteria. CAP can be particularized in the direction of sustainable agriculture, biodiversity conservation, and cultural landscape protection in several ways.

Decoupled, single farm, income support conditional upon environmental requirements is a recent improvement that ought to be accompanied with European Community-wide legislation that moves those environmental requirements toward biodiversity and landscape conservation. There ought to be a requirement that scientists, in conjunction with local users of an agri-cultural ecosystem, should be required to discern and inventory the endemic species of produce, the traditional patterns of mixed-cropping, the species and uses of livestock, the methods of pest management, and the socioeconomic human structures that have historically carried out such practices in the particular region. Income support should be conditional on the use of agri-cultural practices that preserve localized species use and traditional production methods. Income support conditions should also aim to promote localized processing and localized consumption of local produce. This would require research into cultural associations with foods and food species, into typical local recipes and cuisine, and into the sense of identity derived from the consumption of traditional and local foods. Implicitly, this would require a continued ban on the use of genetically modified organisms and the promotion of organic farming.

Income support ought also to require the physical preservation of the natural and man-made aspects of the farm. Components of the farm such as natural species habitats, ponds, and hedgerows and man-made aspects like stables, stone wells, and typical country houses that lend to the visual amenity of the countryside should be preserved and support to the farmers should be provided for their continued physical upkeep.

Decoupling income support from production is important, but hinging the valuation on the size of the farm favors large-scale, mechanized agricultural production rather than the traditional small holding or biodiversity-conserving farmer. Instead, valuation should be based on the economic value of the biodiversity services which are provided by sustainable farming practice, such as air and water purification, waste detoxification and decomposition, climate stabilization, flood and drought moderation, seed dispersal and plant pollination, soil fertility renewal and nutrient recycling. Valuation should also account for the benefits of agri-cultural conservation that accrue to non-farming Europeans, tourists, and food consumers who derive enjoyment and a sense of cultural identity from being in proximity to nature and history by viewing the cultural landscape and consuming the fruits of its lands.

There is also room in the second pillar of CAP for a landscape designation and governance regime. At the very least, rural development measures should be integrated with other conservation policies, such as Natura 2000. But better still, the rural development measures of CAP should be adapted to facilitate uptake of the ELC. Entire rural, agri-cultural ecosystems should be delineated, defined, designated, and managed under an agri-cultural Ecosystem Approach. This would involve an inventorying of both the physical aspects of area (the crops used, the planting patterns, the degree of hemeroby, the man-made structures, the townscapes, etc.) and the cultural and identity-creating aspects of the landscape (ethnic and linguistic patterns, socioeconomic structures, and their relationships to land use). Funding ought to be available on a landscapewide basis so that small towns, hamlets, individual farmers, and other inhabitants may be able to work conjunctively and holistically on the management of their landscape. Adequate levels of funding for research and ongoing monitoring and implementation would be required. Also crucial, would be preliminary and continuous dialogue between high-level decisionmakers and local managers and inhabitants. Finally, this dialogue would have to be coupled with education for locals on the value of their lands with respect to their biodiversity conservation capacity and cultural identity preservation effects for the non-farming European citizens.

IX. Conclusion

Protecting Europe's natural (biological and ecological) and cultural (historic and socioeconomic) heritage starts with the recognition that all of these things are characteristics of the European identity and fundamentals of the patrimony. The integration principle creates an imperative to implement environmental protection requirements such as biodiversity conservation into cultural and historical preservation efforts and in turn, environmental and cultural criteria into the CAP. Protecting Europe's natural and cultural heritage requires an identification of the natural settings in

129. *Id.* art. 5.

which cultures have evolved and the landscapes in which histories survive. Once these areas are identified, with all their component biological and cultural/historical diversities, they require governance. Since the great majority of Europe’s territory has been touched by human settlement and most often by human agricultural activity, an effective governance regime necessarily requires an approach that integrates all aspects of agricultural production, biodiversity conservation, and historical preservation. The CAP, already recognized as being in need of reform, is the most obvious and appropriate legal institution through which to implement biodiversity and landscape conservation efforts. CAP needs to adopt the Ecosystem Approach along with a land-

scape model. Based on an agri-cultural Ecosystem Approach, various legislative and regulatory changes can be made to CAP’s income support provisions, its agri-environmental measures, and its rural development stimuli. The content of these changes should be developed in conjunction with the needs of the local users of the land and should be based on their traditional agri-cultural practices on use of endemic species of produce and livestock. With all of these measures in place Europe can begin the process of protecting its cultural and environmental heritage while moving in the direction of sustainable development and creating a model for the preservation of traditional agri-cultural practices worldwide.

CAP: Summary of Proposed Changes

First Pillar: Income Support	Second Pillar: Rural Development
<p>Generally, CAP adopts the ecosystem approach and the landscape model in order to integrate environmental protection and cultural preservation requirements into a sustainable agricultural framework.</p>	
<ul style="list-style-type: none"> • Decoupled, single farm payment; • Conditional upon cross-compliance with environmental and cultural regulations. • Inventorying of endemic species of grains, produce and livestock, cultivations methods and local usages. • Inventorying of localized patterns of production such as mixed cropping patterns and pest management. • Inventorying of the socio-economic structures that form the basis of agricultural production and of the local use and consumption of foods. • Payment for the physical upkeep of historical amenities: stone wells, stables, hedgerows. • Valuation of payments based on combination of the economic value of the biodiversity services rendered (air & water purification, waste detoxification, soil renewal) and on the preservation and use of endemic species of produce, grains and livestock (rather than on production quantity or farm size). 	<ul style="list-style-type: none"> • Designation of area tracts as agri-cultural landscapes. • Inventorying of physical features of landscape: planting patterns, hemeroby, man-made structures and townscapes. • Inventorying of cultural features of landscape: ethnic and linguistic patterns; relationships between humans, human land use and landscapes, psychological and identity-creating effects of landscape on landscape inhabitants and tourist observers. • Funding to be available on a landscape-wide management basis, for conjunctive administration by the inhabitant towns, hamlets, individual farmers and local decisionmakers. • Provision for dialogue and education for local managers of ecosystem/landscape and administrative decisionmakers.