# Social and Ecological History of the Pyrenees

## STATE, MARKET, AND LANDSCAPE

Ismael Vaccaro and
Oriol Beltran, Editors

# SOCIAL AND ECOLOGICAL HISTORY OF THE PYRENEES

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## State, Market, and Landscape

*Editors*

Ismael Vaccaro and Oriol Beltran


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# Contents


Introduction: Matching Social and Ecological Chronologies in the Pyrenees 7
*Ismael Vaccaro and Oriol Beltran*

1. The Presence of the Past: A Historical Ecology of Basque Commons and the French State 25
*Seth Murray*

2. Local Places, Global Influences: Pastoralism in Xiberoa and EU Regulation 43
*Meredith Welch-Devine*

3. Some Lessons from History: Change and Adaptation in the Common Forests of Navarre, 1900–1935 59
*Iñaki Iriarte-Goñi*

4. Social and Environmental Conflicts in the Planning and Management of Natural Resources in the Aragon's Pyrenees: The Case of los Valles Occidentales 75
*Xavier Carbonell*

5. Highlands and Lowlands: Political Ecology and Territorial Conflict 91
*Gaspar Mairal*

6. Twenty-first Century Transhumants: Social and Economic Change in the Alta Ribagorça 105
*Ferran Estrada, Eli Nadal, and Juan Ramón Iglesias*

7. Pastoralism and Heritage in the Central Pyrenees: Symbolic Values and Social Conflicts 127
*Arnauld Chandivert*

8. Shepherds, Hydroelectric Stations, and Ski Resorts: The Pallars Sobirà Landscape 143
*Oriol Beltran and Ismael Vaccaro*

9. Rusticity, Wild Flora and Fauna Patterns, and Identity in a Valley of Cadí (Alt Urgell) 163
*Joan Frigolé*

10. Tobacco in the Pyrenees? The Ecological Politics of Tobacco in Andorra, a Micro-State in a Global Market 179
*Dolors Comas d'Argemir*

11. Localism as Nationalism in the Eastern Pyrenees 195
*Eric P. Perramond*

12. Management of Environment and Landscapes in Mountain Areas: Social Representations, Actors, and Institutions in a Regional Natural Park 211
*Pierre Dérioz*

13. Landscape Management and Evolution: The Montseny Natural Park 235
*Xavier Roigé and Ferran Estrada*

Index 259

About the Authors 271

# Introduction: Matching Social and Ecological Chronologies in the Pyrenees[1]

*Ismael Vaccaro and Oriol Beltran*

This book brings together a collection of articles that reflect on a century of social and ecological changes in the Pyrenean landscapes. During this period, the Pyrenean landscape has transformed from a place dominated by subsistence agriculture and ranching to a site characterized by a process of acute depopulation and limited industrialism (mining and hydropower generation), then to a place of tourism as well as a site governed by natural conservation policies (Arqué et al. 1982; Campillo and Font 2004; Vaccaro and Beltran 2007). The changes experienced by the Pyrenean landscape are intimately linked to the impact of direct and indirect processes of urbanization (Lefebvre 1991; Williams 1972). Initially, the first phase of industrialization in Spanish and French societies during the 19th and 20th centuries encouraged the abandonment of traditional agro-pastoral modes of production in the Pyrenean mountains and migration to urban zones, which were experiencing unprecedented growth and were in need of a labor force (Thompson 1966; Thomson 1992; Vilar 1966). Later, starting in the 1970s, the expansion of economic globalization led to the transfer of industries that supported the industrial revolution of the West to places where costs of production could be minimized; in particular, the developing nations (Harvey 1996; Smith 1984). This shift to a globalized and unevenly developed global economy created pathways for the establishment and consolidation of the Western postindustrial societies—societies where the service sector plays a dominant role in national economies. This socioeconomic framework allowed for the emergence of particular social and cultural phenomena supported by postmaterialistic values (Baudrillard 1998; Galbraith 1999; Inglehart 1997). These processes include elements such as environmentalism, tourism, or leisure economies that promote concrete initiatives such as natural reserves or ski resorts and secondary residences. The concept of leisure has percolated across all strata of society as a modern social expectation (and right) and it has

quickly become a mass commodity fueling still expanding key economic sectors (MacCannell 1999; Veblen 1998).

The studies included in this compilation analyze distinct historical social processes with clear ecological, economic, political, and cultural repercussions. The Pyrenees—with their forests, valleys, water, animals, and landscapes—is a region with a rich abundance of natural resources. As a consequence, different social groups—both local and foreign—constantly compete for resource control and use and, in the process, alter the ecology of the area. Through interpreting landscapes as inextricable combinations of social and natural variables and of social and natural chronologies, we attempt to overcome the all too familiar nature–society dichotomy (Balée 2006; Crumley 2007).

The Pyrenees, a mountain range with a millenary history, could not serve as a better example of a humanized landscape that, nevertheless, exhibits extreme natural beauty. The natural richness of the Pyrenean landscape is a direct consequence of management practices and the uses by its inhabitants across time. This book intends to contribute to the understanding of the contemporary Pyrenees, not as a homogeneous unit, but as a complex region with deep historical roots, with common themes and challenges. This mountainous range, characterized by a high cultural and linguistic heterogeneity, and traditionally presented as the periphery of two powerful nation states, is experiencing a rapid process of change. The Pyrenees are changing ecologically, demographically, and economically as we speak. The ways locals and outsiders perceive these mountains and themselves are shifting accordingly (Braun and Castree 2001; Cronon 1996). The Pyrenees are also an interesting locale because they are a quintessential example of the contemporary situation of rural areas across Europe and North America (McCarthy 2002; Walker 2003). Very similar processes of depopulation, gentrification, or revival are affecting the Black Forest (Germany), the Abruzzo (Italy), Washington State (US), Quebec (Canada), or even the Eastern Sierra Madre of Oaxaca (Mexico) just to mention a few. These common trends unveil a Western world far from static or unproblematic (Schroeder et al. 2006; Sivaramakrishnan and Vaccaro 2007). The comprehensive study offered by the cases presented here, identifies important and comparable trends in many rural areas of the world.

This project makes room for the works of authors from different academic backgrounds that have developed research projects in areas located from one end of the mountain range to the other, and whose works span across both sides of the Franco–Spanish border. Our intention is to illustrate, through the gathering of different voices and contexts, the great diversity present in the Pyrenees. The studies included in the book range in geographical focus from the French Basque Country and Ariège,

to Navarre, Aragon, and Catalonia. In addition, we have included two articles that examine mountainous areas situated on opposing sides of the land plains that border the Pyrenees (Haut- Languedoc on the French Massif Central and the Montseny in Catalonia). These two mountainous sites neighbor the Pyrenean region and present similar variables but in different combinations and different contexts (smaller and closer to urban areas) which turns them into extremely interesting comparative counterpoints to the Pyrenean cases presented.

The variety of studies included in this compilation, which reveal significant similarities and differences across the range, illustrate the effervescence that characterizes present debates on the Pyrenees. While the articles are in many ways specific to the local context, they also shed light on similar processes in other mountainous regions of Western Europe that may be experiencing similar changes. For instance, European Union environmental programs are guiding and influencing national policies and definitions of natural protected areas across Europe. Entire valleys are being converted into peripheral urban zones filled with secondary residences and absentee owners. Concurrently, local institutions struggle to decide between conservation and development, and traditional uses of natural areas are declining throughout the territory. In several rural European locales affected by more than 60 years of depopulation and an increasing presence of conservation policies, reforestation and rehabilitation of long gone animal species are in progress. We are currently witnessing an exciting historical moment for the Pyrenees, characterized by the emergence of a new development model. This process brings to light different possibilities and directions for the future of the mountains. Moreover, we continue to observe the now traditional conflicts between developmentalism and conservationism, imposition and resistance, speculation and planning, as well as stagnation and rebirth.

This book, however, is much more than a collection of studies on the interactions between humans and nature in a shared area of the world. This piece exemplifies the difficulties of understanding a landscape. No researcher can tackle all the variables and processes that these studies identify. However, it is imperative to take these into account while studying landscapes. Many studies of the interaction between nature and society focus narrowly on the conflicts emerging from the access, control, and management of a specific resource. This approach, resulting from the inevitable limitations imposed on fieldwork by feasibility and pragmatism, ignores the fact that no human community or economic or ecologic system depends entirely on a single resource, no matter how important it is. Many interactions across time shape the relations between water, pastures, agricultural systems, tourism, cultural values, migration patterns, infrastructures, wildlife management, public policies, and ranching

patterns. There are also many different lessons that can be extrapolated from neighboring areas with historical connections and social and ecological commonalities. This compilation provides a model for a holistic approach to the study of landscapes by creating a choral and diverse piece that opens our eyes to a wider field of analytical possibilities. It attempts to show a possible way to defeat these limitations by creating a polyphonous work that extends the reach of the analytical eye from a single valley to the whole range, from a specific resource to a battery of them. However, it does not try to shift from micro-social analysis to a less nuanced macro scale. It situates, side by side, a series of studies that, in isolation reflect specific debates, but as an assemblage provides a regional 'state of the question' approach to the contemporary Pyrenees.

A central objective of these chapters is to underscore the historical and social context that frames, and is a consequence of, environmental management. An ecological problem cannot be conceived as a synchronic and punctual event, but must be understood as a process that requires a deep and intense effort of historical contextualization. In other words, the present cannot be understood without an understanding of the past. Researchers must broaden their analytical scale both temporally and spatially. As such, historical and geographic scales play an important role in the study of these types of social processes. A historical approach permits us to connect present situations to their roots in the past, and with their own specific conditions of production (Marquardt and Crumley 1987).

The study of landscape morphology cannot be complete without taking into account some key social variables such as demographic historical distributions, property regimes, political institutions, as well as productive practices (Vaccaro and Norman 2008). The analysis of these variables and their connections to the ecological morphology of a region facilitates the identification of the anthropogenic elements in the landscape.

The ability to incorporate and clarify social conditions surrounding ecological change is, in part, a consequence of paying attention to identifying the social actors that are involved in the conflict under examination. By way of careful identification of interest groups or individuals involved in the negotiation process, the social contours of conflicts are redefined. A sole event is reconstructed from the myriad of positions, actions, and values of the actors who bring it about. This allows us to explain each case in its own terms and, in this way, avoid grand generalizations. Even though the case under consideration may be connected to broader historical, geographic, and ecological tendencies, local and specific knowledge is also stressed.

Research, replicating the structure of academic disciplines, has tended to reproduce the divide between social and natural sciences in their

analysis of landscapes. Anthropology, sociology, or history tend to focus on human communities, while ecology, geology, and others analyze the biophysical background. This division has ignored the fact that human communities live within the landscape and that human agency across history is fundamental to understand the actual ecology of a place. In other words, to understand a place it is necessary to match and correlate the intertwined historical, social, and ecological chronologies that define the contemporary landscape. Historical ecology analytically integrates human agency and ecology across history over the territorial canvas. This analytical development has resulted in a deeper understanding of the complexities of landscape analysis (Balée and Erickson 2006; Crumley 1994). Modern ecology is about complex systems that include human agency (Abel and Step 2003; Scoones 1999).

On the other hand, political ecology has undertaken the analysis of nature as a complex set of natural resources to which diverse social actors have uneven access. This unevenness is mediated by economic and political rationalities. The introduction of politics to the understanding of the evolution of anthropogenically modified environments has provided yet another reading key to the integral study of landscape patterns (Bryant and Bayley 1997; Neumann 1998).

Historical and political ecology share a 'natural' and perhaps necessary space in which a mutually reinforcing dialogue occurs. Historical ecology focuses on spatially situated human agency within the environment (Balée 2006). Political ecology has emphasized the political and economic framework and the causality behind this very same agency (Robbins 2004). If the goal of our analysis is to approach socioecological systems from a holistic perspective, historical and political ecology offer theoretical complementarities. Historical ecology, in fact, has been instrumental in reintroducing ecology back into environmental science, which is often dominated by narrative analysis (Vayda and Walters 1999).

This collection of studies situates itself at the intersection of historical and political ecology. It offers several cases from the Pyrenean Mountains, in the southwest of Europe. This volume establishes a correlation between the historical changes in the ecology of these mountains and valleys and the social processes experienced by its human communities, focusing specifically on the managerial strategies and political struggles that have dominated the area across the years.

## The Pyrenees, its historical and social ecologies and this book

The Pyrenees provide us with an excellent example of a rural zone, situated at the periphery of two highly developed countries, Spain and

France, where environment and society are immersed in a process of accelerated change, and where the perception, control, access, and use of natural resources play an important role in the regional dynamics. As we will see, the mentioned change does not occur without conflict. The lines of fissures and alliances are countless: development versus tradition, livestock versus tourism, parks versus ski resorts, between local actors, or locals versus foreigners, among others. In the Pyrenees, the predominance of any one of these tendencies over others, or of one social group over others, depends on the particular correlation of social forces, and has a significant impact on its people as much as on the ecology of its mountains and valleys.

The Pyrenees have long been the object of academic and popular interest. Academics and amateur authors have written about the Pyrenees since the 18th century (Madoz 1845–50; Zamora 1973). Interest in the mountain range and its people began with hiking and sightseeing tinged with Romanticism (Nogué and Vicente 2004), and was renewed in the 19th and 20th centuries by geographers and folklore collectors (Solé i Sabarís 2004; Violant 1985). In an intriguing fashion, excursionists in search of esthetic beauty, and folklorists with their systematic collection of artifacts, anticipated the natural and cultural conservationism that characterizes a significant part of the public policies currently being implemented in the Pyrenees. Long-range historical studies and studies of diverse populations and regions on both sides of the Franco–Spanish border have also been conducted to date (Bringué 1995; Iriarte 2002; Le Roy Ladurie 1979).

From the perspective of anthropology, the final years of the 19th century are of crucial importance as they were witness to the emergence of two important, and often opposed, analytical positions on the Pyrenean region: emphasis on the home and family (Le Play 1871), and the accentuation of communal ownership promoted by the agrarian collectivists (Costa 1898). These two authors continue to influence, in one way or another, thinkers who have had to face the common, sometimes conflictive and other times synergetic, dialectic between home and local community in the Pyrenees (Beltran 1996; Comas d'Argemir and Soulet 1993). On the other hand, the population collapse that devastated the valleys and mountains of the Pyrenees during the 20th century generated a multitude of demographic studies that document the magnitude of the phenomenon (Ayuda and Pinilla 2002; Cuesta 2001; Molina 2002; Sabartés 1998). Furthermore, British structural functionalism, with its synchronic studies of remote communities, had an impact as well on the study of rural populations of Southern Europe (Aceves 1971; Behar 1986; Campbell 1964; Freeman 1979; Pitt-Rivers 1954; Wylie 1957). The inclusion of history in the anthropological analysis of collective

identity also had an impact on the Pyrenean anthropology. Different forms of longue-durée analyses allowed researchers to ponder the impact of border construction and deep historical continuities on contemporary Pyrenean communities (Le Roy Ladurie 1979; Sahlins 1989). Later, ecological anthropology contributed to enriching analyses of European mountain communities (Cole and Wolf 1999; Netting 1981; Viazzo 1989). The chapters in this volume draw from these sources and many others.

The studies included here are situated on both sides of the international border separating Spain and France, from its Atlantic corners to its Mediterranean spurs. A central objective of this book is to provide a broad vision of the social processes that currently affect the Pyrenees. As the chapters in this book demonstrate, these mountains do not conform to a homogeneous continuum. On the contrary, their morphology, ecology, human communities, and productive practices as well as their histories differ in varying degrees, whether we look at the Basque Country, Ariège Catalonia, Aragon, Andorra, or Béarn. While highlighting these differences, the chapters examine a common historical period and underscore a series of variables and processes that, in one way or another, have unfolded throughout the contemporary Pyrenees.

The chapter by Seth Murray, for instance, describes the evolution of communal property in a valley of Lower-Navarre, signaling its historical importance as an example of natural resource management and as a local economic instrument. Murray addresses the changes experienced by local institutions, especially as a consequence of their conflicting relation to French and European agrarian policies.

Meredith Welch-Devine offers us a detailed examination of the changes brought about by conservation policies in Europe on ranching communities of Xiberoa in the French Basque Country. She also examines the ideas and actions that these communities have developed in order to adapt and defend themselves against such policies.

On the other side of the border, in Navarre, Iñaki Iriarte-Goñi provides an economic history study that connects the commons of the area and its historical uses to the consumptive needs of the nascent Spanish industrial society. The forests of the area shrink or expand due to the demands of the urban society. He also documents how this increase in timber extraction impacted the commons as institutions.

In the hard-hit area of the Aragon's Pyrenees, where depopulation and economic impoverishment have had devastating effects, numerous natural protected areas are being created. These political processes, which involve a redefinition of the rights associated to the ownership of territory, include controversial initiatives such as the reintroduction of predators like the brown bear. Xavier Carbonell offers us an analysis

of this process, especially emphasizing its effects on the human inhabitants of the region, whose livelihoods are largely dependent on ranching and the emergent tourism industry.

This book, focusing on the social and ecological consequences of the management of mountainous natural resources, would not be complete without a chapter on water. Gaspar Mairal, in his text, focuses on the subject of water in Aragon. The discussion of water, a fundamental resource, but one of irregular distribution, provides countless examples of political debates surrounding its control. Mairal describes, among other themes, the tensions between communities in the Pyrenean watersheds, that are the producers of water, and downstream agricultural communities that face water shortages. He also explores the recent mobilization of water as a symbol of collective identity among the Aragonese, arising in the context of the controversial National Hydrological Plan.

Ferran Estrada, Eli Nadal, and Juan Ramón Iglesias focus on seasonal migration of shepherds between Catalonia and Aragon as a contemporary phenomenon in the district of Alta Ribagorça. They provide an interesting diagnostic of this practice and its interaction with other modern political phenomena, such as subsidized livestock or restrictions on the mobility of herds imposed by modern sanitation norms.

Arnauld Chandivert unpacks the contemporary meanings associated with the concept of pastoralism in the Ariège. Chandivert demonstrates that this activity is currently being reconceptualized. It has become much more than an archaic economic practice. Pastoralism, nowadays, is connected to tradition, respect, quality, or sustainable management, and it is becoming part of a political discourse of legitimation of local access and control of natural resources.

Oriol Beltran and Ismael Vaccaro review the historical process of territorial transformation and institutional modernization in the Pallars Sobirà. They connect depopulation, territorial reorganization policies, and the use of natural resources, with the emergence of a heavily seasonal economy in the district dependent on the tourists attracted by the proliferation of ski resorts, natural parks, and secondary residences.

Joan Frigolé analyzes the process of transformation of collective identities in mountainous zones of the Alt Urgell. The author points to the emergence of cultural museums and new popular celebrations, and how these may be interpreted not only as signs of an urban appropriation of the rural, but also as a strategy adopted by local communities to attract resources by way of tourism, and, subsequently, connect themselves to the market.

Dolors Comas d'Argemir offers us an examination of an exceptional case. She considers the political and environmental implications of the cultivation of tobacco in Andorra, and outlines the connections between

the use of territory, the international market, borders, and the government. She shows how the cultivation of a particular crop can dominate the agriculture of an entire country despite the fact that the end product of this cultivation is often destroyed. In this way, ecology and a great part of the agricultural landscape of Andorra, have been put to the service of the intermediary position that the country occupies in the international tobacco trade.

In his work on the Conflent and Rosselló in the French Catalonia, Eric P. Perramond elaborates on a process with unforeseen consequences. European Union's homogenization of economic borders—with a single market of real state, capital flows, and residential permits—has facilitated the purchase of land on the Pyrenees by citizens with high acquisition power from the northern part of the continent. In addition, he examines how the arrival of foreigners has given way to a certain local revalorization of communal identity with the goal of establishing legitimacy and defending access to the natural resources of the region.

This compilation also includes two texts that are not directly focused on Pyrenean areas. The chapters by Pierre Dérioz and by Xavier Roigé and Ferran Estrada focus on mountainous massifs directly adjacent to the plains surrounding the Pyrenees: the Massif Central and Montseny respectively. Both these chapters are included with the aim of offering greater comparative potential. In other words, these chapters intend to provide supplementary information that may aid us in considering whether the processes and tendencies observed in the Pyrenees can be extrapolated to neighboring mountains. We also hope that these pieces may illuminate whether or not the influences of cities, governments, or demographic processes have unfolded in the same form beyond the Pyrenean mountain range.

In this respect, Pierre Dérioz provides us with an exceptionally comprehensive example of a mountainous area with a long history of state intervention that is dominated by a conservationist zeal. The author embarks upon a detailed analysis of the strategies that different governmental bodies have adopted, and illustrates, for instance, the differences in objectives and strategies between municipalities and parks. Dérioz also provides a detailed account of the emergence of tourism, in its diverse forms, as a sustaining and revitalizing force in the zone.

Finally, Xavier Roigé and Ferran Estrada address the Montseny, a mountainous zone located in close proximity to the Catalan big cities, and under incessant urban pressure. They look at the interactions between an agricultural way of life in decline, a natural park that acts as a de facto regulator of the use of the territory, and urban pressure. They show how this model of management that is centered on the territory's natural and cultural values has had a significant impact on the

traditional use of resources in the zone. In addition, the case of Montseny is important because it seems to prefigure situations of urban pressure which Pyrenean valleys are presently experiencing (or may experience in the immediate future).

In many different ways, this book tracks how modernity unfolds in the mountains. These articles speak to each other as they analyze different dimensions of the expansion of the urban global network, its demands, and productive rationalities over rural societies and environments. Modernity in the European peripheries, although connected to mass production, market integration, urbanization, commoditization, and monetization, has been expressed in different forms: the 19th century state's disembarkment over the mountains with a territorial and institutional reorganization, the half hazardous industrialization of the late 19th and early 20th centuries, the 50 years of autarchy and dictatorship of the Franco regime, the depopulation of the last half of the 20th century, the postindustrial hypermodernity that has brought mass tourism to the area. Most of the chapters in this book deal with several dimensions of this expansion of modernity and its consequences in the local communities and environments. Murray, Welch-Devine, Iriarte-Goñi, Beltran and Vaccaro, discuss the transformations suffered by the old commons. Iriarte-Goñi (timber extraction), Comas d'Argemir (tobacco production), and Mairal (water) deal with cases in which mass extraction or production is implemented in the mountains. Murray, Welch-Devine, Chandivert, and Estrada, Nadal, and Iglesias analyze the changes suffered by pastoralism—a traditional economic activity of the mountains. Perramond, Frigolé, Carbonell, Beltran and Vaccaro, Dérioz, and Roigé and Estrada reflect on cases in which ranching and industry are replaced by conservation and tourism. Several of these chapters—Perramond, Beltran and Vaccaro, and Frigolé—describe how processes of public territorialization (via border control reinforcement or institutional reorganization), productive changes, or demographic transfers affect the processes of individual and collective identity formation. The cases presented by Dérioz and Roigé and Estrada allow us to explore different forms of this expansion of urban modernity over mountainous rural areas. Both locales—nearby the Pyrenees but even closer to urban networks—present similar types of transformative processes but with different morphologies, chronologies, and outcomes. These differences (and similarities) allow us to reflect, for instance, on the impact of distance and infrastructure, on the consequences of different settlement patterns on the uses (and abandonment) of the territory. Both cases are included to generate a comparative approach that deepens our understanding of the Pyrenean socioecological transformations.

The processes identified are not exclusive to this corner of Europe. Numerous researchers across the continent have analyzed similar phenomena in different contexts. It is, again, about understanding the transformations that modernity has brought about upon rural life. These transformations have had impacts on the construction of rural identity itself. A small sample of these reflections include, but are not limited to Chandivert (2006) and Dérioz (1997) for France; Assmuth and Uusitalo (2008) for Finland, Estonia, Russia, and Ukraine; Kule (2008) for Latvia; Williams (1972) for England; and Pinto-Correia and Breman (2008) for Portugal. Further examples include Grasseni (2004, 2007) and Heatherington (2001, 2010) for Italy; Green (2005) and Theodossopoulos (2005) for Greece; Schwartz (2006) for Latvia; and Darby (2000) for England, who have analyzed the processes and contradictions involved in the patrimonialization of nature, of the transformation of the rural areas into reservoirs of nature and leisure.

This 'naturalization' of the rural landscape is built upon environmental recovery that occurs when agricultural pressure diminishes as a consequence of demographic decay. This process is described by several authors for the different regions of Europe: Agnoletti (2007) and Tasser et al. (2009) for Italy; Kozak et al. (2007) for the Czech Republic, Slovakia, Poland, and Ukraine; Roura-Pascual et al. (2005) and Mather et al. (1999) for France; Mather again (2004) for Scotland; Molina (2000), Lasanta et al. (2006), Poyatos et al. (2003) for Spain; and Pinto-Correia and Mascarenhas (1999) for Portugal.

Hann (2003), van Dijk (2007), and Stahl et al. (2009) have discussed the vanishing and re-emergence of different types of collective property regimes in Eastern and Central Europe (Albania, Romania, Bulgaria, amongst others) where state socialism invested as much time as Western democracies to take control of the national territory by legally undermining or dissolving traditional property regimes. The fall of those regimes has resulted in a very interesting process of common property rebirth. Common property and its history has also been a subject of interest in Western Europe: Ali and Paradis (2006) for Scotland, Barca (2007) for Italy, Artiaga and Balboa (1992), Garrabou (1984), and Ortega (2001) for Spain have worked in this area.

Often social research on environmental issues focuses on a specific natural resource, the forest or its timber, for instance. The analysis of the changes in resource abundance and accessibility, the economic processes surrounding it, property regimes (old and new), has allowed these researchers to reflect on rural identity, political and ecological transitions, on the new forms that the engagement between rural Europe and the new world urban order is taking. Some of the important research in this sphere includes Lindhal (2008) for Sweden; Duinker and Pulkki

(1998) for Italy; Cellarius (2001) for Bulgaria; and Berglund (2006) for Finland, to name just a few.

Many countries are engaged in a process of European convergence. New policies and new morals are being imported and recreated following local patterns. Environmentalism and environmental policies and regulations play a very important role in this European convergence. Works representing this area include Snadjr (2008) for Slovakia; Schwartz (2005) for Latvia; Cellarius (2004) for Bulgaria; and Gille (2004) and Harper (2006) for Hungary.

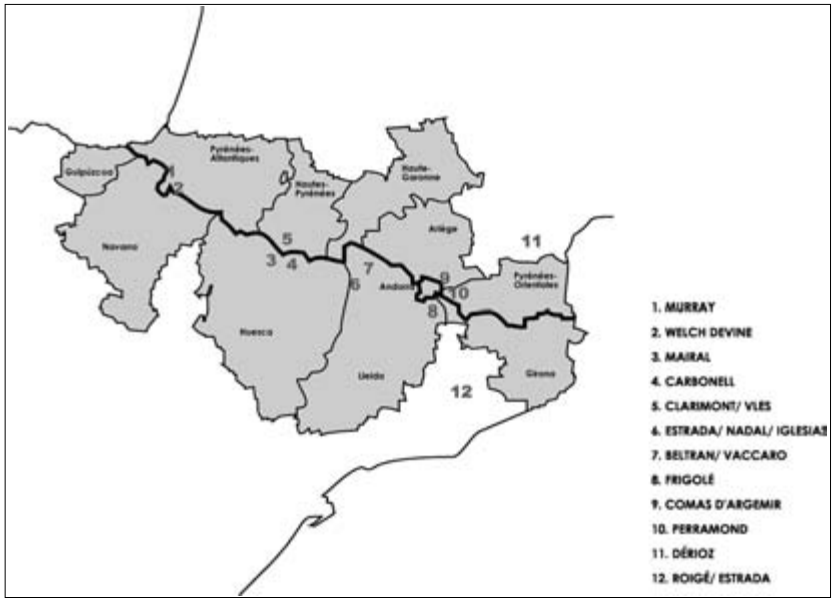
This book is intended as a study that combines the analytical strengths of historical and political ecology. In other words, its central objective is to illustrate how, across history, numerous ecological changes are inextricably linked to political and economic processes. The compilation offers a plural and fascinating vision of the social processes that affect the contemporary Pyrenees. These processes are shaped by the activities of social actors upon the territory, be they agriculturalists, tourists, biologists, or governmental representatives of different sorts.

We would like to particularly emphasize the connections that the mentioned political and economic processes have with the ecology of the mountains. Nature and territory are valued goods. Their circumstances and the changes they undergo are the result of the actions of their inhabitants, which are, in turn, affected by those changes.

Together, the chapters in this collective work demonstrate, as we understand it, that despite significant particularities that depend on the respective regional contexts, it is possible to identify certain common tendencies that affect the Pyrenees and surrounding areas as a whole. Accelerated depopulation has been replaced by a complex series of changes associated with the transformation of natural and cultural values into national heritage (for instance, parks and museums), or with the establishment of different tourist infrastructures (such as secondary residences, ski runs, and golf courses). In any case, we see a tendency towards the organization of the mountain territory oriented toward meeting the esthetic, moral, or vital needs of urban populations that cyclically visit the mountains. This urbanization of the territory illustrates the connections that exist between the Pyrenees, once geographically marginal, with national and international economic, social, and political networks. These connections become particularly evident when looking at the impact of national and European policies (related to livestock, agriculture, food security, and conservation) on the local communities.

This book adds its voice to works that seek to demonstrate that the Pyrenees, and likely a great majority of mountainous regions of the

Western world, are places that manifest extraordinary vitality despite having undergone intense, and sometimes devastating, change. Rural zones in these regions are far from being heavenly paradises frozen in time. The Pyrenees, their ecology, and their human communities have been immersed in processes of transformation, and will permanently continue to change. The mountains will not stop changing, and neither will their people.

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*Chapter 1*

# The Presence of the Past: A Historical Ecology of Basque Commons and the French State[1]

*Seth Murray*

## Introduction

The Pyrenees Mountains in the Basque region of southwestern France offer a bucolic pastoral landscape of verdant forests, whitewashed farmhouses, and sheep herds grazing in luxuriant meadows. Across much of this landscape, the vast pastures are common-pool resources that are collectively managed and used, and these commons have long served as vitally important resources to Basque farmers. In agricultural contexts, land use practices shape how resources are utilized across space and time, and these in turn influence the spectrum of human activities. Commons in the Pyrenees Mountains, as elsewhere on the planet, exist because specific ecological constraints require strategies adapted to them by users; thus, commons and common-pool resources must be examined as culturally and historically contingent products.

In this chapter, I examine the long-term development of Basque commons in the border region of southwestern France by contextualizing this regime within the framework of historical ecology. By framing how the Basque commons in this part of the Pyrenees Mountains have been continuously used and managed since the 18th century, I suggest that Basque agriculture has long contended with the influences of the French and Spanish states, although the nature of these exogenous influences dramatically intensified over the past 40 years. Technological developments and increases in subsidies from both France and the European Union have abetted the mechanization of agricultural labor, which contributes to social fragmentation. Demographic shifts and the cumulative effect of migration patterns over the past century dramatically recomposed the make-up of farming communities. Moreover, as in many industrialized and industrializing economies, the trend towards higher yields and agricultural productivity pushed farmers to adopt controversial new

strategies that further fray and stress key social Basque institutions, such as cooperative neighborhood work parties (referred to as *auzolan* in the Basque language), leading farmers to operate more autonomously and not rely on the support of their neighbors during peak labor periods.

The decline of these networks for communal assistance in agricultural tasks highlights an increase in local competition over the common-pool resources that comprise the commons discussed in this study. This is not to suggest that Basque farming practices were unchanged until recent decades, but rather to highlight the diachronic importance of the commons as both ecological and economic resource. Overall, these changes have important implications for the current state of agricultural practices and common-pool resources in the Basque region. The intention of this chapter is not to explicate all of the contemporary issues facing Basque farmers and others in the Pyrenees Mountains today, which is the goal of many other chapters in this volume. Instead, I intend to ground an explanation of the processes of modernization and development within the context of larger historical trends. In order to understand the challenges facing Basque commons, the sustainability of common-pool resources, the resilience of management regimes, the emergence of new groups and actors that contest the root causes of agricultural changes and their subsequent social impact, our analysis must consistently visualize the presence of the past.

## The study area: the Basque region and the Baigorri Valley

This chapter draws on research conducted since 1999 in the Basque region of southwestern France, more specifically in the Baigorri Valley, located in the province of Lower-Navarre, approximately 50 kilometers inland from the Atlantic coast (see Figure 1.1). Although the Basque Country has historically never truly formed a unified political entity, the seven Basque Provinces are typically thought to constitute a coherent cultural unit. While this assessment, as well as any discussion of Basque distinctiveness, is certainly subject to interpretation and much debate, there is little doubt that this area is situated in a politically complex landscape environment. The Basque region is today located within the borders of the nations of France and Spain, and these two polities have exerted, and continue to exert, strong centripetal political forces on their geographical peripheries, including those in the Pyrenees Mountains.

The Baigorri Valley lies on the international border between these two nation states, surrounded by Spanish territory on three sides and connected to France through its northern side. This is a predominantly agricultural, rural, and mountainous part of the Basque region, where farmers mostly raise sheep and some cattle. The Baigorri Valley is


**Figure 1.1.** The Basque region and the Baigorri Valley. Seth Murray 2007.

narrowly configured in a north–south orientation, with mountain ranges surrounding the farmsteads and villages that are located in valley bottom that is never more than six kilometers wide. The average farm comprises a little over 22 acres, which is not sufficient pasturage to support the average herd size of 150 sheep over an entire year. An important feature of the landscape that enables farmers to subsist with such small land holdings are the mountain ranges surrounding the valley, which consist of more than 12,000 hectares of common-pool pastures and forests (equivalent to half of the valley's total surface area). Commons are of central importance to pastoralism in this area because this allows farmers to send sheep herds to graze in the mountain pastures from May to October, while in the meantime they produce hay in their privately owned fields located in the valley bottom. The livestock return from the commons in the upland for lambing and milk production during the rest of the year. This annual movement of sheep between two ecological zones is called *transhumance*. This cycle of transhumance is integral to agricultural practices in the Baigorri Valley, as it is throughout much of the Pyrenees Mountains, and farmers' success is ultimately predicated by the availability of these common-pool resources (Ott 1993).

In this chapter, I first present the key theoretical notions of the commons, and then address the salience and analytical potency that historical ecology offers to the expansive literature accumulated in the wake of

Garrett Hardin's thesis on the 'tragedy of the commons.' In the second part of the chapter, I provide a historical perspective in order to better understand the evolution of relationships between farmers and the common-pool resources that are central to agriculture here. I examine the historical role of the French state as it progressively expanded its control and sovereignty over this border region, and consider how this process shaped the use and management of the Basque commons over time. In the last section, I draw from more recent ethnographic research conducted in the Baigorri Valley to understand the place that common-pool resources now occupy in the livelihoods of sheep farmers. I discuss the socioeconomic transformations of the 20th century that catalyzed a fraying of the social fabric in these communities and that by extension impacted Basque commons. The historical context provided here helps not only to understand the origin of these transitions, but also to distinguish important ecological and socioeconomic parallels with the other case studies presented in this volume.

## Historical ecology of the Commons

Historical ecology has emerged in the past 15 years as an integrative theoretical umbrella that identifies the dialectical network of causes and effects through which human acts are made manifest in the landscape (Crumley 1994). By simultaneously accounting for local-, regional-, and transnational-level influences, historical ecology improves our understanding of the relationships between humans and their environment, and is attentive to the critical roles that social power and the political economy play in natural resource use. An analysis and interpretation of commons should include 'a complete explanation of ecological structure and function [that] must involve reference to the actual sequence and timing of the causal events that produced them' (Winterhalder 1994: 19). The analytical lens of historical ecology thus integrates environmental and human processes—be they within or between different classes and social groups—and examines resource utilization and their impact on a multi-scalar landscape.

Following Ostrom, I distinguish in this chapter between common-pool resources and the common property regimes that comprise the political or institutional level of governance (1991). These two elements in tandem constitute the larger system referred to here as commons. Common-pool resources are those materially defined, 'natural' resources that may be subtracted from or extracted. Common-pool resources refer to a physical entity, such as pastures or forests, fisheries or national parks that may be shared and used collectively, rather than only by individual private owners. On the other hand, common property regimes are a larger set of

ownership and user rules that are the social means for determining how common-pool resources are managed and handled in common. Research on commons typically centers on how common-pool resources are used, and examines the interactions and relationships between people that are mediated through common property regimes. I posit that it is difficult to understand common-pool resource use or misuse without a more holistic assessment of the common property regimes that govern these resources and the people that utilize them. In the example of the Baigorri Valley that I turn to in the next section, commons over time formed a social, economic, and ecological landscape that serves as an important medium for interactions within and between groups.

When Garrett Hardin published 'The Tragedy of the Commons' in 1968, his theory of the commons rapidly caught the attention of agronomists, economists, geographers and anthropologists. In his seminal article, Hardin described a situation in which common-pool resources may be exhausted or destroyed by individuals tempted to pursue their own interests to the detriment of other users and the broader social collective. Although one may critique Hardin's conclusion that freedom in a common property regime brings ruin to all, or his conflation of open access regimes with common property regimes, he nevertheless provided scholars with an initial theoretical framework where human cultural variables and environmental factors intersect. Analyses of commons may also be problematic because there are few well-documented and detailed examples of common property regimes that have endured over the long term, which would allow researchers to better ascertain the reciprocal influences between humans and the environment (Stevenson 1991). I present the Baigorri Valley as an illustration of how a deep historical perspective can help elucidate the development of a symbiotic link between human activities and the resources available in their environment.

Common-pool resources include 'a class of resources for which exclusion is difficult and joint use involves subtractability' (Feeny et al. 1990: 4). In other words, control of access to common-pool resources can often be challenging if not impossible, and if a group of individuals exploits the same resource, they inevitably affect other users' potential to use that common property resource. Common property regimes are normally found in situations where it is difficult to completely exclude a subset of individuals from utilizing a certain resource, such as a tract of graze land or a stand of timber (Ruttan 1998). First, control over common-pool resources must be endorsed by a government entity or by community consent. Second, there are also usually mechanisms or rules for accessing common-pool resources to curtail overexploitation and to manage their use. For this, a community collectively decides upon and implements rules to prevent overexploitation or depletion

of these common-pool resources. In this sense, a common property regime is not the chaotic scene envisioned by Hardin, but a structured arrangement among members of a community wherein rules are established and developed. These rules are characteristically a set of social norms governing people's responsibilities and their use of common-pool resources, but may also include ways of enforcing these rules and sanctions for breaking them. In this fashion, common property regimes play a central role in community life not only by providing a foundation for economic and ecological well-being, but also because the rules provide a means to regulate social tensions and competition over shared resources.

In addition to the importance of rules governing use of common-pool resources, the changing role of sociopolitical institutions is also one of the focal points of historical ecology. Such institutions are central to the use of common-pool resources since these entities may sanction 'the conventions that societies establish to define their members' relationships to resources' (Gibbs and Bromley 1989: 22). Common property regimes are thus characterized by a set of accepted social norms and rules governing access and use of resources, and include official sanctions set by institutions for those who abuse these rules. This type of property regime demonstrates a capacity for dealing with disruptions and sudden changes, and it is likely to minimize disputes and competition over resources and decreases the chances of abuse (Baden and Noonan 1998). Research on the commons must inevitably examine the types of relationships that individuals have with particular common-pool resources concerning their entitlements, responsibilities, and obligations (Dietz et al. 2003).

Common-pool resources in the three Basque Provinces in France may be collectively owned by individual villages, as in the province of Labourd. Common-pool resources may also be jointly owned and managed by multiple communities, which are oftentimes located within the same valley, such as is the case in the provinces of Lower-Navarre and in the case study of Xiberoa explored by Meredith Welch-Devine in this volume. In these two provinces, common-pool resources frequently include both mid-range graze lands in proximity to the villages, as well as higher altitude pastures for summer grazing—both landscape elements being crucial to farmers' success. However, the mountain pastures that are the principal common-pool resources for farmers can potentially place individuals' activities at odds with the interests of the local communities, and even those of the nation due to the proximity of the international border in the Basque region. In the following section, I examine how common-pool resource use has played out in the Baigorri Valley of Lower-Navarre over the past several centuries. We explore the role that local institutions

and other social actors have had in mediating tensions over resource use by devising governance rules for the Basque commons.

## Historical development of the Commons in the Baigorri Valley

Commons in the Baigorri Valley are by their very nature a contested, even threatened, space, in large part because of the contentious interactions and competitive relationships between humans utilizing common-pool resources over time. Commons in the Basque region have persisted for centuries in spite of numerous attempts to enclose, privatize, or limit use of common-pool resources. The Baigorri Valley was recognized as part of the territory ruled over by the king of Navarre as early as the 13th century in the *Fors et Costumes du Royaume de Navarre* (Cavaillès 1910). This document posited the rights and responsibilities of inhabitants in the Kingdom of Navarre, explicitly referring to the Baigorri Valley, and formally recognized the Cour Générale, an institution that primarily regulated land use issues in the community.

The Baigorri Valley historically formed a community because its residents were bound together in their economic dependence on common-pool resources for farming and by virtue of their shared allegiance to the king of Navarre. This sense of community was also forged through local decision-making bodies like the Cour Générale. Each household in the Baigorri Valley sent a representative to these periodic assemblies to deliberate on matters of public interest, to set the rights and obligations of individuals to the community, and to establish grazing charters—alternatively called *fueros* or *fors*—with neighboring communities (Bidart 1977). The Cour Générale also determined the rules and permissible dates for the seasonal use of common-pool resources, including penalties and fines for individuals who disobeyed these rules (Etchelecou 1991). The power and decision-making capacity of the Cour Générale was relatively broad, particularly for matters related to land and resource use in the Baigorri Valley, and even so maintained its allegiance to the monarchy. However, the Cour Générale took the initiative to publicly pronounce the rules and regulations following the deliberations of its representatives, and also directly negotiated grazing agreements (*fors*) with neighboring communities. As such, the Cour Générale was an incipient democratic institution that unified and organized the inhabitants of the valley into a coherent social whole.

The Baigorri Valley was designated by royal decree as 'common lands' (or *pays indivis*) and consequently was not permanently settled during the Middle Ages (Gauthier Dalché 1990). As early as 1200 AD, the king of Navarre issued regulations for the Baigorri Valley that forbid homesteading there and reserved most land use privileges for the royal

court. However, it seems that in reality, royal control over this territory was weak, and local Basque farmers were still quite autonomous to regulate and enforce the use of common-pool resources. For example, they circumvented royal sanctions and preserved the usufruct privileges of the Baigorri Valley by utilizing this resource on a seasonal rather than year-round basis (Haranburu 1977). I have argued elsewhere that when the Kingdom of Castilla annexed the southern part of the Kingdom of Navarre in 1512, which included areas adjacent to the south of the Baigorri Valley, the common-pool resources in the Baigorri Valley proper maintained their designation not so much because of the economic needs of local Basque farmers and their ecological constraints, but because the Baigorri Valley had become a de facto buffer zone between the nascent modern states of France and Spain (Murray 2003).

Geographer André Etchelecou estimates that at least half of the Baigorri Valley's surface area was designated as common property by the mid-17th century (1991). By this time, however, and contrary to what was permissible under the statutes governing the valley, there were a number of Basque farmers that had surreptitiously settled there. This was in part because of an increase in population, but also because of the Basque practice of primogeniture, whereby only the eldest child—regardless of their sex—inherited the family estate so as to preserve the integrity of the *etxe*, or house. This meant that shepherds wanting to establish their own farms had to look elsewhere, and the common-pool resources in the Baigorri Valley made for a very appealing destination. This population influx mainly originated from the nearby communities to the north of the Baigorri Valley and from communities to the south, most notably from the Erro Valley, located in Spanish territory. These communities did not always peacefully coexist alongside of one another. For example, French officials attempted to limit settlements in the Baigorri Valley by regularly demolishing the houses and barns of would-be homesteaders, although to little avail (Goyhenetche 2001).

Local use of common-pool resources highlights the tensions between the various Basque communities in light of the restrictions imposed by the nascent modern French state. Mounting tensions, coupled with local competition over use of the Baigorri Valley's common-pool resources, further complicated relations between France and Spain in the 18th century. The land use privileges at stake ignited tensions between local farming communities straddling opposite sides of the Franco–Spanish border. Due to rising population pressure all throughout the 1700s, a large number of Basque farmers from villages to the north of the Baigorri Valley had settled there in search of both farmland and places to build homes (Viers 1950). Population migration into the valley eventually led to the founding of three surrogate villages located in the Baigorri Valley

proper (Arvizu 1992). This influenced the use of common-pool resources by increasing the number of overall users, and resulted in a situation that favored Basques from Baigorri to the detriment of the shepherds from Erro because some individuals now occupied the middle of the Baigorri Valley proper rather than its periphery. The mountains and their invaluable common-pool resources surrounded these new villages, which was an advantage in terms of the time allocation and the labor demands of sheep farming. Thus, in addition to the official agreement between French and Spanish polities that restricted settlement of the valley and the use of its common-pool resources, by the mid-18th century, the neighboring Basque communities of Erro in Spain and Baigorri in France began to compete with one another for access to the Baigorri Valley (Strauss 2004).

These local, factional disputes eventually resulted in outbreaks of violence, such as an occasion in 1768 when a group of armed Basque farmers from Baigorri killed or injured several dozen inhabitants of Erro. France's refusal to recognize the legality of the newly founded communities in the valley further exacerbated these tensions. The use of common-pool resources in the Baigorri Valley remained in dispute between the Basque communities of Erro and Baigorri until the Treaty of Elizondo in 1785. This agreement signed between French and Spanish governments essentially divided the common property in the Baigorri Valley into two distinctive pastoral zones along what later came to be known as the 'Ornano line', in reference to a mediator in the border treaty (Lefebvre 1933). The Treaty of Elizondo stipulated that the northern section of the valley would be used by shepherds of Baigorri, while the southern zone was reserved for the inhabitants of Erro. The treaty recognized the existence of the new Basque villages in the Baigorri Valley, and purported to resolve the disputes over the use of common-pool resources. Despite this treaty, disputes over access and use of common-pool resources in the Baigorri Valley promptly resumed between the inhabitants of Baigorri and Erro (García-Ruiz and Lasanta-Martínez 1993). The tensions were mainly caused when use or access to pasture and water in the common lands was disputed, or if a farmer's animal herd crossed through or near another group's claimed territory (Cavaillès 1931a). It is apparent that the 1785 treaty did not resolve the competition between Basque communities along the border over common-pool resources (Cavaillès 1931b). In order to address these tensions, a new arrangement—the Treaty of the Pyrénées—was drawn up in 1856, and the 'Ornano line' from the 1785 treaty became the permanent boundary between France and Spain (Chaussier 1989). This is significant because it finally established a permanent border between France in Spain through the Basque region, a

process that had already taken place in the 17th century across the rest of the Pyrenees Mountains (Sahlins 1989).

At the time of the French Revolution in 1789, two main features characterized the status of common-pool resources throughout the Basque Provinces in France (Vivier 1996). First, because these provinces had been under the direct control of the French king since its incorporation into the kingdom in 1512, local nobility was not allowed to own large domains or to claim control over common-pool resources. This particular status was quite rare in France, with only two other identified cases in France (Briançon and Ubaye, both in the Alps near the Italian border) where the local nobility were not the largest landowners (Vivier 1998). The second main feature in the Basque Province in France is that local assemblies such as the aforementioned Cour Générale managed common-pool resources and the land use rights of community members, nominally under royal supervision (Cavaillès 1931a). These assemblies were powerful enough that they have been described as embryonic small-scale democracies that were particularly novel in the context of monarchic France (Bidart 1977). Indeed, from within each local assembly, elected representatives were sent to the annual parliaments of the three provinces of the Basque region in France: Labourd, Soule, and Lower-Navarre (Cavaillès 1910). These parliaments in turn served as places for interacting with the representatives of the French king. Common-pool resources in and of themselves were not what makes the Basque Provinces unique within France, since there are numerous other areas that also have common-pool resources and local organizations for managing them (Vivier 1998). Rather, what makes the situation of the commons in the Basque Provinces so remarkable at the time of the French Revolution and in the early 19th century, is the institutional strength that the assemblies and parliaments had for jointly managing issues that were important to the economic well-being of Basque communities, such as their common-pool resources. Moreover, these local institutions provided a means to resist the massive tides of change that followed the French Revolution and to preserve common property regimes intact during a period when there was a movement to enclose or privatize common-pool resources across France. For example, the pre-Revolutionary Cour Générale was first replaced with administrative commissions under Napoleon Bonaparte that renewed initiatives to parcel and sell off commons that were first proposed in 1771 (Vivier 1996). Later, a royal decree in 1837 transformed these commissions into what continue to be known as *syndicats de vallées* (Vivier 1998). However, these institutions were essentially changes in name alone, as they maintained the autonomy and decision-making capacities of their predecessors.

The *syndicat* of the Baigorri Valley persists in essentially the same organizational form today as in the past, being responsible for the oversight and management of common-pool resources, including pasturage and woods, in the Baigorri Valley. In a democratic echo of past practices, a representative from each of the communities in the Baigorri Valley sits on the *syndicat*'s board, which is headed by an elected chairperson. This body's administrative costs are mostly covered through the annual sale of timber harvested from the common-pool resources, and from collecting fees on hunting stands in the commons that are rented out after the transhumance period ends in the autumn. The abovementioned 1856 Treaty of the Pyrenees recognized a *syndicat*'s right to oversee the negotiations of grazing rights between communities, and its legal standing was articulated in French civil law in 1884 (Itçaina 1993). The conflicts between neighboring communities over common-pool resources that afflicted the Baigorri Valley during much of the 18th and 19th centuries appear settled and relegated to the past. The structure of the *syndicat* and the longevity of this management regime suggest a strong and continued incentive to preserve the common-pool resources of the Basque commons, even amidst pressures created by the changing political and economic context of the 20th century. We will elucidate this point in the following section.[2]

## Transformation of the Commons in the 20th century

New agricultural technologies and transformations in the broader political economy have dramatically transformed farming practices, and begun to influence Basque commons in the last half of the 20th century. Much of the discussion on the impact of modernization in European agriculture over the past 40 years is at the level of the material transformations of farming. Clearly the Pyrenees are being reshaped by factors such as the mechanization of labor, the abandonment of traditional agro-pastoral modes of production in favor of more intensive strategies, the migration from rural to urban areas, or the socioeconomic implications of tourism and new recreation activities in rural mountain areas.

Communities are not solely bounded, discrete units constituted from within; they are equally imbued with meaning through long-term interactions with externalities, such as other communities, national polities, and international organizations. Communities are imagined, constituted and reinforced through their experience with less concrete external forces, such as competing initiatives from neighboring communities, national economic policy directives, or international treaties. Whether intentional or not, the history of interactions between Basque farmers and representatives of the French polity has shaped the image and material life of these Basque communities. This leads me to consider the perhaps more

innocuous transformations of European agriculture that affect the social networks of small rural communities like in the Baigorri Valley. In a significant break with the past, the relative stability of the Basque commons since the late 19th century has been undermined in recent decades by the weakening of traditional Basque social networks. In particular, the decline of cooperative neighborhood work teams—the *auzolan*—hint at a loss of relationships that have been crucial to the long-term management and use of ecological and economic resources such as those of the Basque commons.

The period after the Second World War in the Basque region, as elsewhere in France and across much of Western Europe, was marked by profound economic and social transformations. In agriculture, this is highlighted by the modernization and mechanization of farming equipment—tractors, hay-balers, milking equipment, and motorcycles—which most farmers in the Baigorri Valley were using by 1970. These new technologies effectively allowed Basque farmers to be increasingly self-reliant in terms of their daily activities, and to require less material assistance from their neighbors, such as during the summer harvesting of hay, or during the collection of fodder in the autumn, in preparation of stabling the animals during the winter months, when farmers would typically call on the *auzolan* for assistance.[3] This transformation in the material means of production reshaped the nature of agro-pastoral farming and transhumance in particular, which had previously required the cooperation of several farmers to accompany animals to the pastures in mountains and then stay there with them during the summer months. Now, instead, shepherds may load their animals onto transport trucks, drive them up to the common property pastures in the mountains, and then commute by off-road motorcycles to check on their herds each day.

In a parallel reminiscent of Sandra Ott's observations 25 years ago in the village of Sainte-Engrâce in the neighboring Basque province of Xiberoa (1993: 71; also see Welch-Devine's chapter in this volume), the relationships between neighbors in the Baigorri Valley seem less central to the economic viability of individual farmers than for generations past. A recurring theme repeated during the course of my interactions and interviews with farmers in the Baigorri Valley was that people did not help each other as they used to in their farming practices. Farmers complained that a network of neighbors cooperating in agricultural activities had unfortunately atrophied in the Baigorri Valley, both in terms of its pragmatic economic utility, and in term of the image that such a network historically represented in the social life of their Basque community. For one middle-aged, single male farmer, the labor demands of his modern farm would be better met by forging tighter professional links. 'In order to work,' he opined to me, 'we've got to be together on

this. Me, without my neighbors, I just don't know how I'm going make it happen.'[4] The transformation of modern economic realities over the past several decades contributed to the fraying of the *auzolan* and the disappearance of networks that were historically important to Basque farming communities in the Baigorri Valley. The weakening of social networks within villages in the area does not mean that each farmer works entirely on his or her own; of course, family members or neighbors may assist one another as needed. However, the decline of the *auzolan* has dramatically reduced farmers' margin of flexibility in an increasingly risky economic setting. There is cause for concern that the continued decline of the *auzolan,* coupled with an increasingly unpredictable environmental context, has the potential to gravely undermine the long-term resilience of Basque commons.

Another significant transformation is the profound reconfiguration of the political economy of agriculture generated by the European Union's Common Agricultural Policy (CAP). Undertaken in 1962, the CAP is a subsidy program that was originally created to help farmers have a reasonable standard of living by guaranteeing adequate revenue in light of fluctuations in commodity prices. The CAP also purports to keep rural economies afloat and to preserve 'traditional' landscapes, which essentially means that the CAP supports farmers who provide a valuable service to the social collective in maintaining the integrity of rural ecosystems (Gray 2000). In addition to these general direct-payment farm subsidies, farmers in the Baigorri Valley who raise sheep have received supplemental subsidies since 1982, and because they work in a mountainous area, they have been eligible for yet another subsidy since 1992. The sum of these European Union subsidies can represent nearly 50% of a farmer's annual income whose economic viability thus depends in no small amount on CAP monies. Until the 2003 Luxembourg agreement, CAP subsidies were linked in part to higher production quotas, with overall milk quotas for the European Union set so as to have a 7% surplus. Furthermore, the structure of CAP subsidies put individual farmers' short- and intermediate-term economic interests at odds with the interests of the community, for whom the longer-term maintenance of common-pool resources was paramount. Coupled with a relatively high price of milk through the 1980s and 1990s, the intensification of this mode of production only served to undermine social networks already fragilized by the decline of cooperation in farming activities and the increasingly individualized nature of agricultural activities. Under these conditions, success in farming in the Baigorri Valley appears predicated as much on the agricultural policies of the European Union as on the local common property regimes that have been historically central to the livelihood of Basque farmers.

Subsidies have also allowed shepherds in the Baigorri Valley to significantly increase their number of livestock. Livestock data from the *syndicat* of the Baigorri Valley that were shared with me indicate that herd sizes have doubled over the past 35 years, and moreover, this trend appears to continue to intensify, as average herd size surged by 15% during the period from 1993 to 1999. During the summers, nearly 50,000 sheep now graze in the common property pastures in the mountains surrounding the Baigorri Valley, which puts these common-pool resources under tremendous pressure from its different users and has significantly increased the incidence of overgrazing (Setoain 1992). In part, this appears as a consequence of individual farmers seeking to maximize the total amount of subsidies they receive by simply increasing their herd size, regardless of the potential cost to the wider social collective. However, I argue that this situation does not represent the classic dilemma or 'tragedy of the commons.' Human self-interest is not a new phenomenon; rather, it is the changing material conditions of the past 45 years that enable farmers to be self-interested and then act upon it. In other words, the political economy of the European Union and of the French state has weakened the social norms for controlling the use of common-pool resources and limiting the potential for its abuse. These structural economic changes and their impact on common-pool resources use in the Baigorri Valley exacerbate the fragmentation of Basque social networks, as individual farmers increasingly compete with one another over resources, and these dynamics together create a sense of social crisis.

## Conclusion

The commons in the Baigorri Valley have persisted in part because of ecological constraints that make mountain pastures a vital and valuable common-pool resource for farmers limited by the small size of their farms. At the margins of the French and Spanish states, this space also meant that the interests of local Basque farmers were regularly at odds with those of the state. However, the common-pool resources were a constant and indispensable bedrock in the socioeconomic well-being of the inhabitants of this area. The resilience of common property regimes and maintenance of common-pool resources by local communities and the *syndicat* from the encroachment of exogenous forces may be understood in part as a defense of the local Basque community's autonomy and its socioeconomic survival over the long term (Durand 1909). Many of the functions performed in turn by the Cour Générale or the *syndicat* have essentially been the same for centuries (Laborde 1989). Indeed, I argued here that significant changes in agriculture did not

begin to effect the management and use of common-pool resources until the 1960s.

Since then, technological and material transformations in agriculture, changes in the social networks of farming communities, and new developments under the Common Agricultural Policy have brought major changes to the Baigorri Valley. Farming practices have also transformed individuals' relationships with their neighbors and their communities, as traditional rural social networks, such as the *auzolan*, have been disrupted through the modernization processes in agriculture, and this has eroded certain aspects of social solidarity and occasionally exacerbated intra-local tensions. There has recently been an increase in the institutional support for the development of mountain agriculture, be it from the French government or from the European Union under the guise of the Common Agricultural Policy. In the Basque region of France, as elsewhere in the Pyrenees, these policies were in part a response to the perception that the agricultural sector was in a crisis that was demographic, economic, and technological in nature (Puigdefábregas and Fillat 1986). Through the lens of historical ecology, we can decipher and diagnose some of the external constraints that influence Basque common property regimes, all the while recognizing the agency of social groups and individuals to creatively operate and respond to these influences. As the CAP is transformed and even progressively phased out over the next six years, additional and potentially more radical changes are in store for farmers in the Basque region, in terms of both their social and economic livelihoods. All of these processes, whether they are welcomed or not by local farmers in the Baigorri Valley, have the potential to further transform the symbolic and material value of the Basque commons.

## Notes

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2. My analysis of historical changes in the Basque commons during the second half of the 19th century is limited by the paucity of documents surviving from that period, since a significant amount of the regional archival materials for that period were destroyed by fire in 1908.
3. To our knowledge, no statistical data exist to quantify changes in participation rates in *auzolan*, so these observations rely entirely on information obtained during ethnographic fieldwork.
4. Translation from Basque is mine.

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*Chapter 2*

# Local Places, Global Influences: Pastoralism in Xiberoa and EU Regulation

*Meredith Welch-Devine*

Xiberoa,[1] the smallest of the seven Basque provinces, relies heavily on its agricultural sector. Though in decline, agriculture still accounts for 22.5% of jobs in the province (Salvi 2005). The agro-pastoral system is underpinned by the practice of transhumance, or seasonal and temporary herd migration. Sheep and cattle herds spend the summer in high mountain pastures that are owned collectively by all residents of Xiberoa. The common property management regime, which dates in its present official form to 1838 but has roots in the 1520 Coutume de Soule, is facing numerous challenges including loss of farms, overgrazing in some areas and abandonment in others, and changes in transhumance patterns. Factors contributing to these changes include diminishing attractiveness of agriculture as a career, lack of labor power, and changes in breeding practices. What is less recognized, however, is the embeddedness of this system in regional, national, and now supranational frameworks and the role of European Community policy in some of these same challenges. This chapter will explore the implications of two European Union policies: the Common Agricultural Policy and the keystone environmental initiative of the European Union, the Natura 2000 network.

## Xiberoa

Xiberoa is located in southwestern France in the Pyrénées-Atlantiques department and is composed today of 35 communes belonging to the cantons of Tardets-Sorholus and Mauléon-Licharre.

The 35 communes cover an area of 697 km$^2$ and have a combined population of 13,471 as of the 1999 census (INSEE 1999).[2] This amounts to a density of 19.3 inhabitants per km$^2$, which is substantially lower than the departmental average of 78 inhabitants per km$^2$. Seventy-five per cent of the population lives in the canton of Mauléon-Licharre.

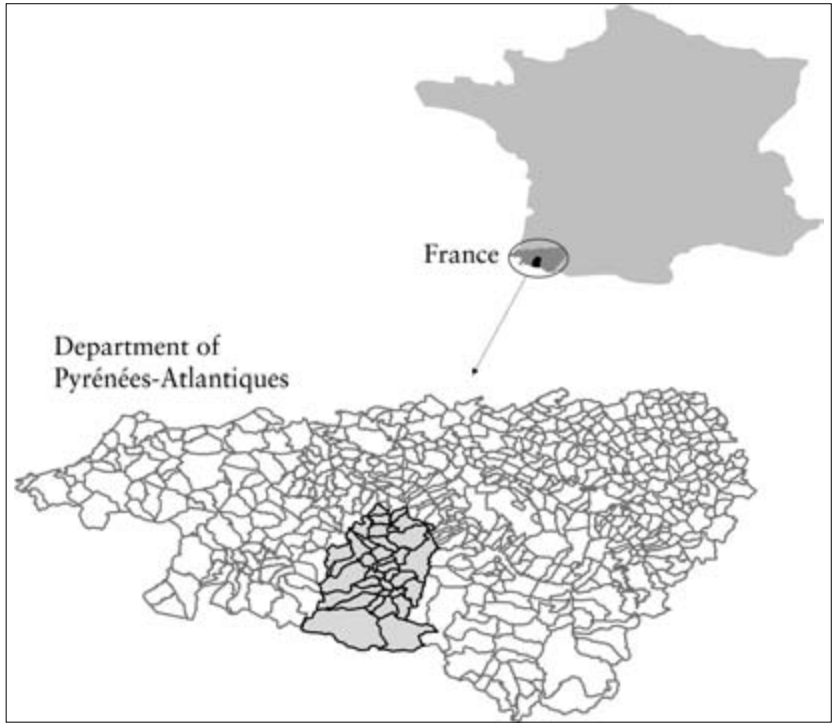


**Figure 2.1.** The Pyrénées-Atlantiques department, showing the communes of Xiberoa. Darkest shading denotes those that are currently considered part of Xiberoa, with lighter shading denoting those that were part of the historic configuration. GIS by John Devine.

The boundaries of Xiberoa correspond roughly to the basin of the Saison River. The Saison provides a fertile alluvial plain that gives way to hills and high mountains. The villages of Xiberoa are concentrated along the river and its tributaries, though set back onto terraces to avoid the sometimes violent floods (Viers 1994). The higher mountains are found in the southern part of Xiberoa, in the canton of Tardets-Sorholus, while the canton of Mauléon-Licharre is comprised of lower, flatter terrain.

The common-pool grazing lands used for summer pasture are found in the territories of seven communes but are owned collectively by all residents and are open to all animal raisers in the province. The French law of 18 July, 1837 authorized the creation of syndicates to facilitate inter-communal cooperation and to manage the common-pool resources

belonging to multiple communes. Pursuant to that law, in 1838, communes that had managed their own collective lands since the French Revolution ceded control of varying amounts of that land to the Syndicate of Soule (*Xiberoko Zindikata*), which now coordinates and oversees the management of the majority of the common-pool grazing land in the province.[3]

**Farms**

The herds of more than half of the 867 farms in Xiberoa practice transhumance. Sending herds to the mountains for four to six months frees the farm for production of hay, corn, and bedding needed to carry the herds through the winter. Transhumance is particularly important to the smaller farms found in the more mountainous areas of Xiberoa. Almost 68% of the herds in the canton of Tardets-Sorholus practice transhumance, while only 44% of those in Mauléon-Licharre do.

One of the major problems facing the current common property management regime is that there are fewer and fewer farms to participate, which exacerbates labor shortages and contributes to herd consolidation and farming intensification. Since 1979, Xiberoa has lost 32% of its farms (Agreste 1979, 2000). This loss reflects, in part, a general agricultural decline that has resulted in similar losses in the department as a whole (-34%) and in the nation (-47%). A corresponding increase in average farm size indicates that much of this land was incorporated into existing farms rather than being transferred to non-agricultural uses. During this period, the average usable agricultural surface increased from 17 hectares to 30 hectares in Xiberoa (Agreste 1979, 2000).

Many of the farms that disappeared did so because their proprietors had no children to inherit the farm. In 2000, 32% of heads of farm in Xiberoa were single, whereas in the department the figure is 26%, and in France 18% (Agreste 2000). Explanations for this high rate of single heads of farm range from a skewed sex ratio resulting from selective outmigration of females—in the canton of Tardets-Sorholus in 1999, the ratio of women to men in the 15–29 age group was 7.6/10—to the inability to attract a woman to farm life—due primarily to seclusion and lack of work opportunities (Salvi 2005).

However, not all farms are abandoned simply for lack of an heir. In response to seeing young potential farmers decline to take over a viable family operation, local officials commissioned a study on the attractiveness of agriculture as a career. This study found that unfavorable comparison of working time to people with salaries (exacerbated by the change to a 35-hour work week in France), family disputes, and a feeling

of being 'stuck' were the major reasons for abandoning or not taking over the farm (Salvi 2005).

### Grazing patterns

In the canton of Tardets-Sorholus, sheep herd sizes increased by 36% between the last two agricultural censuses, from 91 ewes per flock in 1988 to 124 ewes per flock in 2000. In the canton of Mauléon-Licharre, the increase was 44% (108 to 156 ewes per flock) (Agreste 1988, 2000). Despite the increase in herd sizes, the Syndicate has not seen a substantial increase in the total number of animals pastured on the land it manages because of the concurrent decline in the number of transhumant herds. Since 1993, the average stocking rate, which is calculated using different values for individual animals of different species, has increased only 5.5% over the totality of that land. However, during that time, grazing has become more localized.

The high pasture is divided into five sectors. Of these five, Ahuzki, the most northwesterly of the sectors shown in Figure 2.2, is the best-served by roads and the most easily accessible. As a result, it is the most populated sector and has the highest stocking rate. While the rate for the whole of the Syndicate-managed land is 1.14 Large Animal Units[4] per hectare, for Ahuzki it is 2.85. Furthermore, this rate has risen 28% since 1993.

Animal raisers complain of uneven grazing within each sector as well. Traditionally, shepherds guided their herds throughout the grazing area during the day to ensure even grazing. Large animals, cattle and horses, though, are left to roam at liberty. Citing lack of adequate labor power, most shepherds now choose not to spend the day guiding their herds but instead just see them in the morning and evening. The animals thus favor some areas, leaving others to be overtaken by bramble, which further discourages them from grazing those areas. These changes in grazing pressure result in reduction of surface area available for grazing and decline in quality of the remaining surface.

### Changes in transhumance patterns

Transhumance patterns have changed substantially in the past 30 years. Whereas sheep herds now go to the mountain pastures anywhere from mid-May to mid-June and stay until September, they traditionally went earlier and stayed longer. Increased attention to breeding, lack of forage, and the decision to stop making cheese at the mountain cabin have all been identified as factors contributing to the animals making their ascent later in the spring.

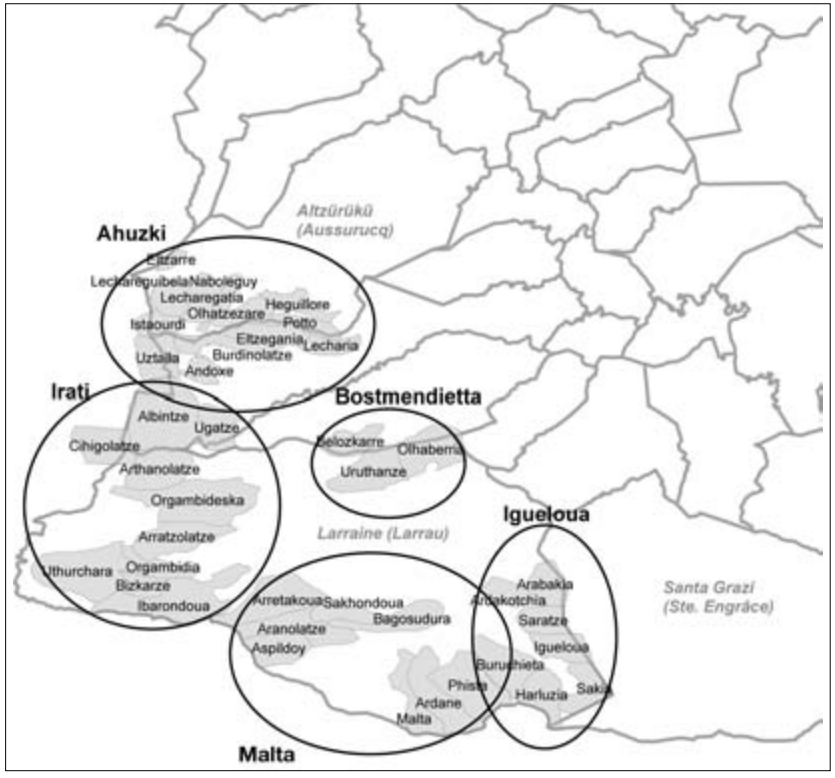


**Figure 2.2.** The five sectors of high pasture Xiberoa managed by the Syndicate. Data on sector and olha boundaries provided by the Syndicate of Soule (*Xiberoko Zindikata*). GIS by John Devine.

In an effort to increase milk production, sheep raisers are giving greater care to their breeding operations. Traditionally, sheep were allowed to breed naturally in the mountain pastures and could mate with any of the rams in their grazing area. Today, the sheep raisers, who are most attentive to breeding, either have their sheep artificially inseminated or breed them at home before taking them to the mountain so they are sure of the parentage of their lambs. Selection for more milk production can also produce animals that are less hardy, leading some raisers to stop practicing transhumance entirely.

Recent years have also seen raisers complaining about the quantity and quality of forage in the high pasture as a result of the changing

grazing patterns discussed above. The lack of forage leads some raisers to bring their animals down earlier than they did before, particularly in dry years. It has also affected the condition of the animals. Whereas before they maintained or even gained weight in the mountains, most animals now lose weight and body condition over summer. The effect is particularly marked in cattle, which sometimes need several months of feeding before reaching appropriate condition to calve. The lack of grass has not, however, contributed to raisers taking their animals up later. There is a sense that those who go first will get 'the good grass' and that those who wait will not receive the same benefit. Some raisers see the situation as so severe that they have either stopped practicing transhumance or have started sending their animals to the mountains of neighboring Béarn.

The decision to no longer make mountain cheese has also helped change the calendar of transhumance. Of the 39 pastoral groups that use Syndicate-managed land, only 14 still have shepherds that make mountain cheese (36%). Many of these only make cheese for two weeks to help dry the milk supply of the ewes. In 2000, 18 of these groups made mountain cheese, and there were an additional eight that stopped the practice over the course of the 1990s (Hegoburu 2000). While those that still make cheese ascend with their sheep on or close to the opening date of 10 May, those who no longer make cheese generally wait until mid-June.

## Common Agricultural Policy

While the Common Agricultural Policy (CAP), like other national or supra-national policy, is not being proposed as the sole driver of the above mentioned changes, its impact, however, should be considered along with the more local forces already identified. The CAP was created in 1962 by the members of the European Economic Community in order to preserve the competitiveness of the member states' agricultural sectors. Undergoing substantial changes since its inception, particularly in the MacSharry reforms of 1992, the CAP has replaced price supports with payments directly to farmers and now includes a focus on promoting more environmental-friendly agriculture. It consists of numerous financial aids both unlinked and linked directly to herd sizes and other characteristics of the farm and is financed by the European Agricultural Guidance and Guarantee Fund (EAGGF). In its current incarnation, the CAP includes subsidies per hectare under pasture, per head of livestock, and for raising animals or farming in mountain areas. Considering the three major categories of challenges to the common property regime

identified in the preceding paragraphs, one may note the influence of the CAP.

**Farms**

The link between the CAP and the diminution of the number of farms is largely anecdotal and requires more study, but there are two main points of contact. The financial aids provided under the CAP require compliance with certain measures and meticulous recordkeeping. While the shepherds are mostly grateful for the substantial aid ('*Heureusement qu'on les a!*'), they do remark that the paperwork and the lack of flexibility are serious constraints. When participating in the CAP a raiser is restricted on, for example, dates of transhumance, when animals can be sold, and amounts of fertilizer that can be applied. All of these things must be carefully noted and reported. While these daily headaches presented by compliance efforts may not be enough in themselves to push someone out of agriculture, Salvi found that they could indeed be the 'final straw' (2005).

There are more beef cattle in the Pyrénées-Atlantiques department than there are available subsidy rights. As a result, multiple provisions have been discussed to decide the allocation of these subsidies. One of the more controversial, the decision that a farmer must have at least 10 mother cows to receive any subsidies, threatens to drive the smallest operations out of business. This loss of small farms leads to increased average farm and herd sizes and a decrease in the overall number of farms.

**Grazing patterns**

The link between the CAP and herd size is arguably more direct. As raisers are paid per head of cattle, sheep, or goats, they have an incentive to maintain as large a herd as is feasible for them.[5] Informants have reported increasing their sheep herds by as much as 50% to profit from these aids. Real fluctuations in herd size, though, are somewhat masked by reporting practices. Until recently, it was possible to declare the same animal more than once in order to have more subsidies. New measures regarding the identification and declaration of animals have made this practice of 'double declaration' impossible. Per-animal aids can also in principle exacerbate the surplus of animals in certain high pasture areas. Though the Syndicate has not seen a change in the overall number of transhumant animals reported to it, if some herds stop using the high pasture and others become larger, we can hypothesize that this will contribute to uneven grazing pressure.

### Transhumance patterns

Making cheese in the mountains requires a large investment of time, and due to new European sanitary regulations, money. If a shepherd wishes to sell the cheese made in the mountain cabin, the cabin must be equipped with regulation facilities for making and storing the product. Though there are aids available for the necessary improvements, many judge the tradeoff between the potential revenue and the added work burden as unsatisfactory. As explained above, these shepherds then spend less time in the high pastures.

The Prime Herbagère Agro-Environnementale (PHAE), which provides payments based on the amount of land in pasture and prairie, has also prompted some shepherds to change the length of their period in the mountains. On the farm, they must fall between a stocking rate of 0.8 and 1.8 Large Animal Units per hectare—time spent in the mountains is declared and serves to effectively increase the size of the farm. For example, a farm that sends its entire herd to an area that has a stocking rate of one animal per hectare on ten hectares for half of the year effectively adds five hectares to his or her total declared surface. Some raisers with small farms have increased their transhumance time in order to fall below the 1.8 mark, while some with larger farms have found it necessary to either send fewer animals to the mountain or to leave them there for a shorter period of time to reach the .8 mark.

## Natura 2000

Natura 2000 is designed as a coherent ecological network of areas managed for favorable conservation outcomes. Its two enabling pieces of legislation—the 1979 Birds Directive and the 1992 Habitats Directive—use both protected areas and conservation measures on private lands to protect some 200 habitat types and 700 species deemed 'of Community importance' (European Commission 2002). Before they can take effect in a Member State, European directives must be transposed into national law. For these two directives, the process was finalized in France in April 2001.

The high pasture of Xiberoa is covered almost in its entirety by overlapping and interlocking Natura 2000 sites. The map of Xiberoa (Figure 2.3) shows Natura 2000 sites in relation to the five grazing sectors pictured in Figure 2.2. Since Natura 2000 sites cover such a substantial portion of the agricultural domain in Xiberoa, they are poised to impact on-farm management, which could translate into changes in commons use, and to affect governance and decision-making on the commons directly.

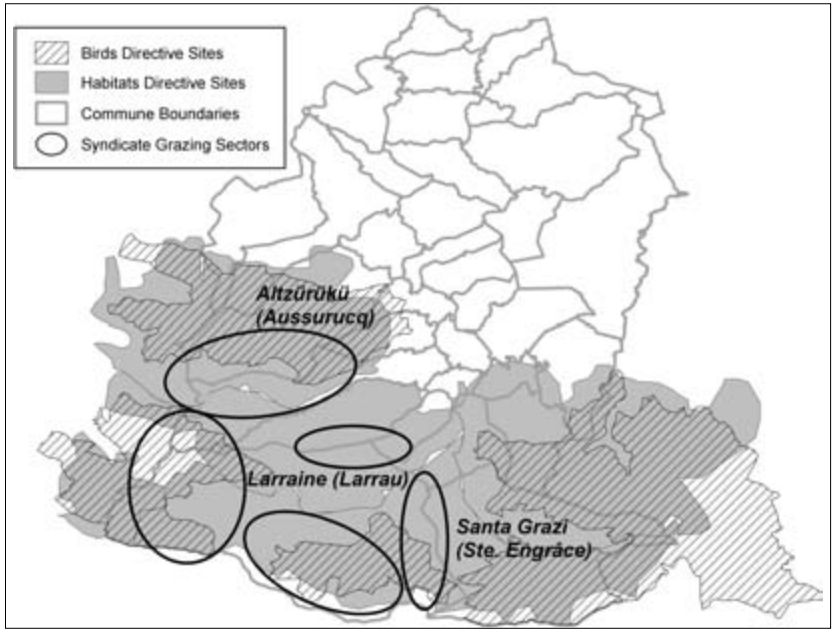


**Figure 2.3.** Natura 2000 sites covering the high pasture of Xiberoa. Data on grazing sectors provided by the Syndicate of Soule. Boundaries of Natura 2000 sites provided by the Prefecture of the Pyrénées-Atlantiques department. GIS by John Devine.

Based on a scientific inventory of habitats and species conducted by the French National Museum of Natural History (NMNH), propositions for Natura 2000 sites in France are initiated by the Prefect of the department, who sends the proposed site boundaries and the reasons for its inclusion to the communes concerned. In the first stage, communes are asked to comment only on the scientific validity of the site designation and not the social or economic ramifications. Municipal Councils are asked to deliberate and give their opinion on the site within two months. If they miss the deadline, their opinion is counted as favorable.

The Prefect then transmits the list of proposed sites to the Minister of Ecology and Sustainable Development. The experts at the NMNH examine the proposed sites, and those that are retained are validated by the Minister of Ecology as well as by other Ministers. Birds Directive sites can then be directly established by Ministerial Decree, while Habitats sites must be transmitted to the European Commission.

The Commission decides which proposed sites to approve and can ask the Member States to provide more sites, which it did in the case

of France. Retained sites are published in the Official Journal of the European Union after which the Member States must designate them as Special Areas of Conservation within six years. This process is outlined in Figure 2.4 below.

In France, after a site is designated, the Prefect convenes a Pilot Committee responsible for overseeing the creation of a management plan for the site, the Document of Objectives (DOCOB). Under article 144 of the *Loi relative au développement des territoires ruraux* (2005), the Pilot Committee must include local collectivities[6]—for instance, communes, the General Council—and representatives of those who live and work within the site. The Pilot Committee selects its own president, who should be a local entity if possible, as well as the Operator responsible for the creation of the DOCOB.

The DOCOB combines an inventory of habitats and species with an assessment of human activities on the landscape, prioritizes areas on

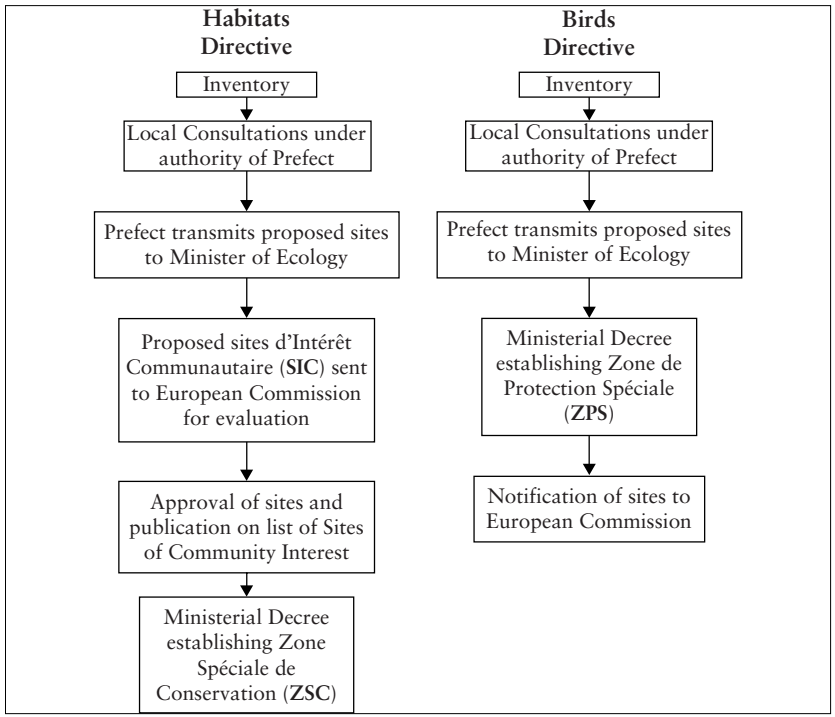


**Figure 2.4.** Site designation process in France. Modified from 'Les procédures de désignation d'un site Natura' Le Portail du Reseau Natura 2000. Ministère de l'Écologie, de l'Énergie, du Développement durable et de l'Aménagement du territoire, France.

which to focus, and lays out actions to be taken. After the DOCOB is finished, an Animator, who may or may not be the same entity or person as the Operator, is chosen to negotiate contracts with landowners. These contracts take either the form of a Sustainable Agriculture Contract as is already used in the CAP or a Natura 2000 Contract for non-agricultural lands. Engagements last for five years and the amount paid varies with the number of activities the landowner decides to undertake. For example, he or she might agree to delay cutting hay several weeks to avoid reproductive periods of species of interest but might choose not to reduce levels of manure applied to fields.

The contractual approach that France has taken is almost entirely voluntary. No one can be forced to sign a contract. There are, however, measures that apply to everyone regardless of whether or not they have signed contracts or charters:

- Annex IV species (animal or plant) cannot be taken without permission even when outside of a Natura 2000 site. Most of these species are already protected by national law.
- Within a Natura 2000 site, projects must be preceded by Impact Assessments.
- Within a Natura 2000 site, introduction of invasive species is prohibited.

Failure to comply can result in fines, and for farmers, a loss of 3% of CAP subsidies (Ministère de l'Agriculture et de la Pêche 2005). However, enforcement is only likely when the police are notified by another citizen.

There is much misunderstanding and speculation that simple refusal to sign a contract under Natura 2000 could result in loss of these subsidies. In the department, subsidies for intermediate transhumant farms, a particular type that is characteristic of Xiberoa, average 21,471 euros (Observatoire Économique de la Filière Ovine Laitière 2005). This represents 34% of the revenue of these farms. A loss of 3% of the subsidies would be 644 euros. While this does not perhaps seem to be a large sum of money, it is more than 5% of the average net profit of these animal raisers (11,887 euros).

### Resistance to Natura 2000

Objections to Natura 2000 in Xiberoa boil down to the fear of restrictions on traditional or economic activities without remuneration and decisions without consultation. Hunters and fishers have argued that Natura 2000 could prohibit them from taking game and fish, while

pastoralists fear that they will no longer be able to use fire as a pasture management tool or to send sheep to their summer grazing locations. They also worry that Natura 2000 will prohibit them from using any sort of herbicide or fertilizer and that any applications to improve structures will be denied. Allusions are frequently made to the creation of an 'Indian Reserve,' and the most extreme arguments against Natura 2000 even foresee the prohibition of hiking and mushroom picking. Many livestock raisers feel crushed by exterior regulations and impositions. Communication has also been an extremely important theme in the discourse of those resisting Natura 2000. Xiberoa citizens frequently complain that they were never adequately consulted about Natura 2000 and voice objections to the directive's instructions to select sites using only biological criteria. Local officials often argue that either management should have been decided first so they would know where to draw the boundary lines of sites or that designation of sites should have itself taken human dimensions into account. Though the Prefect held informational meetings on Natura 2000 in Xiberoa, most individuals seem only to know what they have heard from their local elected officials or from hunting and fishing associations or farming syndicates. Many know that they are included within a Natura 2000 area because it is written on the annual paperwork they receive regarding their CAP subsidies, but most do not know what that will mean for their practices.

**What participation could mean for the shepherds of Xiberoa**

The impact of Natura 2000 on management practices in Xiberoa is likely to be different than that feared by livestock raisers. Natura 2000 sites would almost certainly be subject to management plans that place some restrictions on human activity. However, the Habitats Directive states that human activities that helped create landscapes should be encouraged, and it includes provisions for contracts to encourage beneficial behavior, and thus, could represent a means to financially aid shepherds. Shepherds might be compensated for altering their dates of transhumance, sending animals to different parts of the mountains, or staying with the animals more during the day to guide their grazing. Such aids could counteract recent changes in these practices, but only if they do not threaten long-standing management institutions or entail so many extra challenges that they encourage even more shepherds to leave their farms. Additionally, it might be necessary to rethink the interplay of the CAP and Natura 2000. Some of the trends encouraged by the CAP, such as larger herd sizes, are probably contrary to management that would be indicated in the context of Natura 2000. Other CAP measures, such as restrictions on fertilizer, are more likely complementary to

the aims of Natura 2000 but leave some farmers wondering why Natura 2000 is necessary on agricultural lands, perceiving it as redundant.

Furthermore, Natura 2000 has the potential to serve as a model for local involvement. Thus far, locals in Xiberoa are extremely unhappy with the lack of collaboration and consultation, but if implementers were able to construct a real collaborative process in the following phases, it could serve as the basis for future projects. Such a change would require extensive work with and through existing management institutions that have a proven track record of governance and the trust of people. Thus far in the process, these local institutions have been largely excluded from participation even though they could be instrumental in encouraging local acceptance. The institutions and social networks are in place; what is required is a concerted effort by implementers to tap into those networks and mobilize these institutions in the implementation effort.

## Conclusion and further considerations

Causal factors for changes in herd management and use of common-pool resources can be found across the scale of governance, from the most local, such as family disputes, to supra-national forces such as international policies. This chapter has explored two of the most influential European Union policies for livestock raisers in Xiberoa: the long-standing Common Agricultural Policy and the still-being-implemented Natura 2000 network.

The CAP has played a large role in the development and change of agro-pastoralism in Xiberoa. Its role in the future, though, is uncertain. It is unclear whether the inclusion of new countries in the European Union will dilute the available funds and reduce payments made in countries that currently benefit. It is also unclear whether the policy will be reauthorized and if it will begin to be phased out. This uncertainty itself affects the on-farm and transhumance decisions made by farmers and would be a fruitful area of enquiry.

In contrast, the impacts of Natura 2000 have not yet been felt in Xiberoa, but the project is of great concern to the livestock raisers of the area. While many fear that it may prohibit them from sending animals to the mountain, it is actually unlikely to substantially change transhumance practices. The additional subsidies that its contracts could provide in exchange for slight modifications of management practices could help keep more families in agriculture and could help even out grazing pressures, thereby benefiting raisers. Further inquiries into the interplay of Natura 2000 with other forces affecting agriculture would be illustrative in future studies of land management on both private and common-pool lands in the province.

Two of the biggest problems hindering acceptance of Natura 2000 in the area are that agriculture is already facing enormous pressures and that it 'comes from Brussels.' In other areas of France, a declining agricultural sector has made the implementation of Natura 2000 much easier. In Ariège, the Natura 2000 site encountered some resistance from shepherds, but the low density of exploitations made that resistance nominal. The agricultural decline in Xiberoa has not weakened the agricultural sector such that Natura 2000 can be easily implemented, and a further lowering of that activity would most likely be contrary to the aims of Natura 2000. The paradox lies in the fact that human activities that have shaped the landscape often need to be continued to preserve biodiversity, but the very policies directed at conserving that biodiversity may hasten the demise of some of those important activities.

Secondly, the top-down approach of Natura 2000—which can be seen as a strength in that it provides for coherent continent-wide conservation—should have been tempered by strong in-country efforts at participatory processes. Clearly the European Union is not capable of doing local-level outreach, but in France this could have been, and could still be, done by the departments. The strong responses generated by the lack of consultation on Natura 2000 reinforce the idea presented in conservation literature of the necessity of building 'constituencies for conservation' (Brosius and Russell 2003). Frequently projects attempt to encourage acceptance of conservation and management through monetary means. The CAP works in this manner, and Natura 2000 is designed to as well. While the vast majority of livestock raisers in the area participate in the CAP, money does not seem to be enough to assure their participation in Natura 2000. The question then becomes: how to create these constituencies using non-monetary measures? The importance of garnering the support of respected local officials and effectively working through existing institutions cannot be overemphasized. This observation is particularly relevant for policies coming from high political levels (such as international) or from less-trusted political entities (as is the EU in this case). Also, in areas where management institutions are particularly strong, not working through them threatens to make them actively turn against a policy, which is obviously even more detrimental to implementation than a simple lack of support.

Traditional livestock raising and transhumance practices in Xiberoa are not only important for biodiversity conservation but also for livelihoods and cultural identity. For many reasons, these practices are considered 'worthy' of preservation. The changes in the system encouraged by the CAP and the perceived threats to it by Natura 2000 should occasion reflection on the differences between policy intention and on-the-ground effects of policy. In addition to the realization that policy instruments may not function as planned, we should also consider that the needs of individual communities,

be they human or not, will most likely be invisible to policymakers working on such grand scales as that of the European Union.

## Notes

1. I will be referring to the province by its Basque name in the Souletine dialect. In unified Basque, it is Zuberoa, and in French, which will be seen in the chapter as part of citations and organization names, it is Soule.
2. Historically, Xiberoa was comprised of an additional eight communes that are today part of the canton of Saint Palais. The farmers of these eight communes have the right to use the high pastures of Xiberoa; however, because many data are available only at the level of the canton, we will focus here on the contemporary configuration of Xiberoa.
3. Some communes, notably Santa Grazi (Sainte Engrâce) and Larraine (Larrau), also own and manage substantial amounts of high pasture.
4. Equivalent to one adult horse or cow. Each adult sheep is 15 Large Animal Units.
5. In France, mother cow subsidies remain 100% coupled to herd size, while sheep subsidies are 50% decoupled.
6. Technically, the term for these institutions is territorial collectivity—*collectivité territoriale*. However, in popular usage they are referred to as local collectivities—*collectivités locales*.

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*Chapter 3*

# Some Lessons from History: Change and Adaptation in the Common Forests of Navarre, 1900–1935

*Iñaki Iriarte-Goñi*

## Introduction

The idea that the Pyrenees—and other mountain areas of Europe—are currently at a crucial crossroads in terms of their future viability is widespread among social scientists. The economic crises, the European Union's agrarian and territorial policies, increasing environmental and conservationist concerns, and effects of globalization have opened up a range of possibilities and uncertainties for mountain regions. Decisions regarding such concerns will shape the future of those areas and their populations.

It would be a mistake to think that this is the first time that mountain areas have faced these dilemmas. On the contrary, European mountains have gone through a process of continuous readaptation for at least the last two centuries (Collantes 2004; McNeill 1992). A review of the evolution of mountain areas in Spain over time reveals that, at the end of the 18th century, many of these areas showed obvious economic strength based on livestock and manufacturing activities, which also generated a demographic dynamism (Moreno Fernández 1998). During the 19th century, crises in several economic activities—seasonal migration of livestock, wool production, and so on—led mountainous economies into a decline. However, the industrialization process enabled growth of the demand for abundant resources in mountain areas, which adapted themselves to the new situation as a source of mining (Collantes 2003) or forest products (Iriarte-Goñi 2005). Subsequently, strong economic growth in the second half of the 20th century accelerated the demographic crisis in these areas (Ayuda and Pinilla 2002), leading to the present situation. Thus, mountains have been historically influenced by socioeconomic changes occurring at both national and international levels. Such changes have progressively shaped the use of the resources

in those areas according to external demand and have forced mountain societies to readapt their modes of exploitation of the natural environment. Such readaptation may have been more or less positive depending on the economic, social, and environmental effects it generated.

Within this general context, this chapter analyzes a historic episode of readaptation of a mountain area, evaluates its effects, and offers some lessons from it. The geographical framework is Navarre, a territory located on Spain's northwestern border with France. Navarre is characterized by significant geographical and climatic diversity, with different forms of habitats and economic organization. The mountainous nature

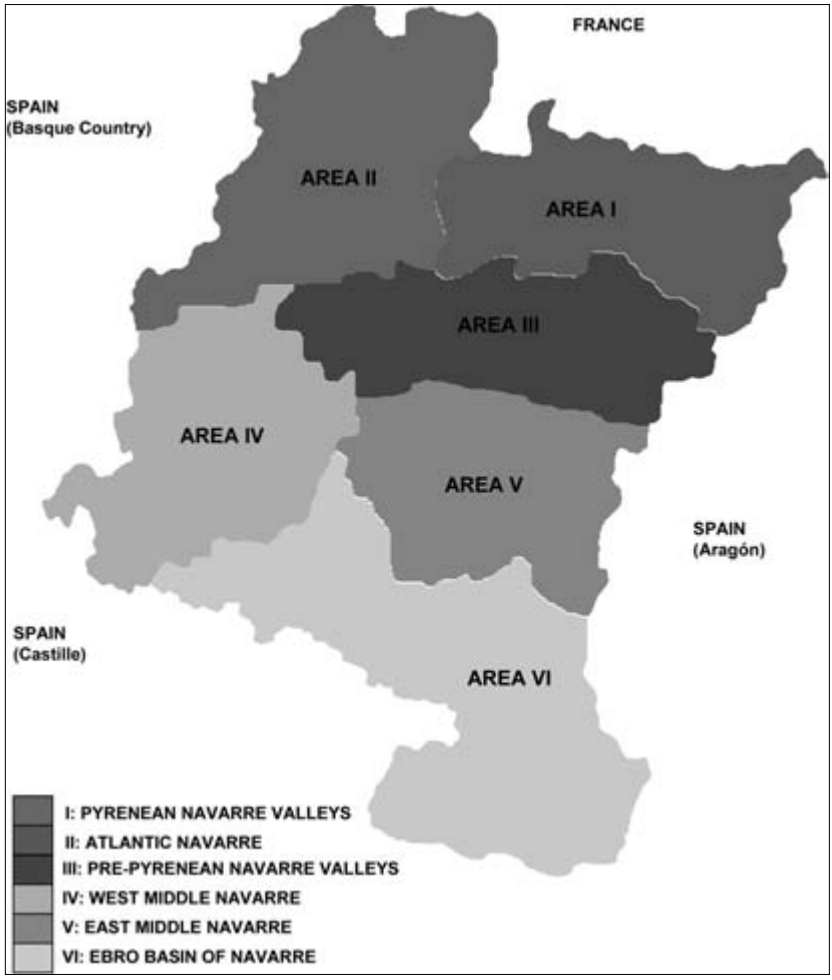


**Figure 3.1.** Agro-ecological areas of Navarre.

of northern Navarre, at the western end of the Pyrenees, represents an appropriate location for an analyzis of the evolution of mountain economies. This chapter analyzes the first decades of the 20th century, when the second industrial revolution was being developed within the whole Western world and during what some authors refer to as the 'first globalization' (O'Rourke and Williamson 1999).

The basic argument can be summarized as follows: since the end of the 19th century, the emergence of new energy sources such as electricity and petroleum decreased relative consumption of firewood (Gales et al. 2008; Smil 1994). However, the advance of the second industrial revolution—together with the process of urban growth—increased consumption of wood as raw material, which resulted in a significant increase in the demand for the product (Iriarte-Goñi and Ayuda 2008). In this context, common forests from northern Navarre adapted, supplying increasing amounts of wood to urban consumption centres. This new competition forced an institutional reorganization of the management of common lands, which led to appropriate adaptation, without damage to the forest resource.

This chapter is divided into four sections. The second analyzes the situation of common forests in Navarre at the end of the 19th century, explaining their characteristics and their greater or lesser extension, depending on the environment and other aspects of social and agrarian organization. The third section contributes precise data on the increase of wood demand and the adaptation of wood supply from the common forests of Navarre. The fourth examines the institutional and environmental consequences arising from these changes. The final section summarizes the main conclusions and suggests some lessons for today.

## Navarrese forests at the end of the 19th century

Table 3.1 shows the area of Navarrese forests at the end of the 19th century, where woodlands covered a total of 230,512 hectares, somewhat

**Table 3.1 Forest surface in Navarre around 1895.**

| | Ha | % total | % area |
|---|---|---|---|
| Area I | 65,884.3 | 28.6 | 38.5 |
| Area II | 89,818.5 | 39.0 | 47.6 |
| Area III | 28,582.3 | 12.4 | 21.2 |
| Area IV | 31,784.7 | 13.8 | 20.0 |
| Area V | 10,564.2 | 4.6 | 7.7 |
| Area V | 3,878.2 | 1.7 | 3.1 |
| Navarre | 230,512.1 | 100 | 22.7 |

*Source*: Summary of the Cadastre of Navarre 1882–1895.

more than 22% of the total surface area of Navarre. Forests were not homogeneously distributed: there is a clear gradation from north to south. The most northern region (Areas I and II) made up somewhat more than 66% of the existing forests. This fell to 23% in the intermediate region (Areas III and IV) and the most eastern (Area V) and southern (Area VI) regions had barely 6% of total forest area. The same gradation can also be found if one establishes the existing relation between forest area and total area in each of the areas defined. In northern Navarre (Areas I and II) forests covered between 40% and 50% of the area, decreased in the intermediate region (Areas III and IV) to around 20%, and were almost nonexistent in southern Navarre (Areas V and VI).

This distribution is explained by the morphological, edaphologic, and climatic attributes of each area. Area I (located in the most western foothills of the Pyrenees) had an Alpine climate and was essentially formed by rough and severely sloped lands covered with high-mountain forests of black pine, wild pine, and fir, although huge forest-block areas of beech and oak could be found in the lowest valley areas. In Area II, Atlantic climatic attributes and gentler slopes (it is also a mountainous region) allowed for the existence of deciduous forests mainly composed of beech, oak, and chestnut. From here on, in Areas III and IV, forests had attributes of gradual transition towards Mediterranean climate, which were aligned towards the northeast-southwest, insofar as relief, in turn, progressively becomes flatter. Thus, in Area IV, graduation was gentler, so that there still were beech and oak forests, but towards the south, holm oak began to predominate. In Areas III and V, the transition was more abrupt, and beech almost disappeared in favour of holm oak, oak, and especially undergrowth, which covered a great part of the mountain ranges. Finally, Area VI is a typically Mediterranean forest, much more degraded and scarce, trees alternating with riverside forests.

All these characteristics influenced, and in turn, were influenced by the agrarian activities developed in each area. In the northern part of the province, scattered settlements—together with difficulties of cultivation—gave forested land a significant role. Land fertilization and livestock, forest, industrials and other activities (small rural industries based on the use of firewood or charcoal) depended on forests. The situation changed towards the south-southeast as settlements became more concentrated and environmental attributes enabled greater expansion of the cultivated area. In fact, the expansion of cultivation was a constant in southern and southeastern Navarre from the beginning of the 19th century, and was clearly promoted from the 1840s by an increasing demand by the national food market (Lana Berasaín 1997).

These different situations were also influenced by property rights and land management. In fact, land privatization was higher in those areas in which cultivation was expanded. On the contrary, a large part of the surface area of the northern region (including Areas III and IV) remained as common land. However, the maintenance of common lands in the north did not necessarily mean immobility in the use of such areas; the progressive consolidation of a modern (more commercialized) economy produced a sharp alteration in the forms of common management. On the one hand, neighbouring communities (that is, the different groups that integrated them, each according to its interests and its social-control capacity) attempted to adapt the forms of access to forests to this new situation. On the other hand, the provincial government increased its control over forests through supervision of local management. In fact, the Forest Provincial Office (*Dirección Provincial de Montes*; FPO) was created in 1866 and has since been responsible for the approval, or rejection, of requests made by municipalities regarding the use of public woodlands.

Thus, at the end of the 19th century, one finds a very different forest situation depending on the region being analyzed. In the southern half of the province, forest surface had already been reduced to its minimum through an expansion of cultivation that was closely linked to privatization, while in the northern half of the province, forests still occupied significant areas. However, forms of resource management were being modified and would be enforced by the economic transformations that took place during the first third of the 20th century.

## Increase in wood demand and commercial exploitation of common forests

In Navarre—as well as in other Spanish and European areas—a major restructuring of the agrarian sector was taking place during the early 20th century. In southern regions, economic expansion involved a new increase of cultivated areas. Food market expansion, the creation of flour and sugar factories throughout the Ebro Valley, the emergence of new technologies that allowed the ploughing of lands hitherto inaccessible, and the use of chemical fertilizers resulted in a strong expansion of cultivation, which in Navarre doubled the Spanish average (Gallego Martínez 1986; Lana Berasaín 1997). However, in northern Navarre, economic expansion was centred on common forest exploitation, promoted by several incentives. The growth of the Navarrese economy increased wood demand and the forest sector developed. Around 1927, wood industries represented 9.5% of total industrial production in Navarre. Around the same time, two of the largest six companies were

timber companies. Two paper companies using wood pulp, as well as a factory of wood distillation for making chemical products (mainly acetic acid and tars), were now in operation (Garrués 1997). Several railway tracks were laid close to the forests, resulting in a double effect: they increased wood demand for sleeper and carriage construction and they facilitated the transportation of forest products to centres of processing and consumption. The development of a road network in the 1920s and 1930s and the emergence of motor vehicles also facilitated wood transportation (López Echarte and Ávila Ojer 1994).

All this led to growth in the market for wood and increased the commercialization of forest products. Forest exploitation in Navarre was centred on those areas that held important forest masses at the beginning of the 20th century. In fact, between 1900 and 1935, nearly 90% of the commercialization of forest products took part in Areas I, II, and IV, and the remaining 10% was carried out almost exclusively in Area III. The other regions progressively consolidated their agrarian expansion process and became net importers of wood and firewood. Apart from that, the environmental attributes of Navarrese forests restricted exploitation to lumber and charcoal, with little or no developing exploitation of other forest products such as cork or resin (which also had been at their peak in other Spanish areas since the end of the 19th century; Parejo 2006; Uriarte 1995).

In Navarre—as in other mountain regions of Spain—the commercial exploitation of common forests for wood was organized through a system of public auction (Jiménez Blanco 2002). Village councils first decided the amount of product they wanted to auction and gave the FPO a report detailing the amount and the reasons for their decisions. FPO officials then surveyed the land and decided whether the proposed use could be undertaken. In the case of approval, they set the value of the products, with these valuations acting as a starting price for auction. From that point onwards, the FPO produced a document laying out the conditions and including basic information on the forest area to be exploited, the number of trees to be cut down, their valuation price, and the time period during which such use could be undertaken. Once those data were published, the auction proceeded and the contract was awarded to the highest bidder.

An analysis of the documents presented by municipalities to the FPO provides interesting data, although with severe limitations. The documents were never collected systematically by the provincial administration and year-over-year research is simply not possible. For that reason, we have decided to carry out five chronological sections, extracting and aggregating data for the years 1895, 1905, 1915, 1925, and 1935. The files contain information on the amounts of products that villages supplied to the market

through auctions, although many only contain figures relating to the end of the process, making it impossible to know the amount of products that were actually auctioned and the prices paid. In short, we must resign ourselves to a partial quantitative analysis that, in spite of its imperfect nature, may provide an approximate picture of the events that took place.

Table 3.2 summarizes the supply of forest products from Navarrese villages within the five chosen periods in both cubic metres and monetary values. If we observe the behaviour of global supply during those periods, we clearly see an increase that begins slowly at the beginning of the 20th century, maintains the same approximate level until the First World War and, from that point onwards, grows continuously; the growth is especially strong during the 1920s and somewhat weaker during the 1930s. At the same time, the increase in the global supply was accompanied by an important change in wood-product composition. Basically, wood supply underwent strong growth (in physical terms it was multiplied by somewhat more than a factor of 10) while charcoal supply diminished (it was reduced by 80%) as it was replaced by other energy sources.

In short, it seems that the actions of the municipalities adapted to the new requirements regarding raw materials for different activities (increasing the supply of wood) as well as to energy transition (significantly reducing charcoal auctions). The reasons behind such behaviour are to be found within the context of a progressively more commercialized and monetarized economy in which village councils relied on the income from

**Table 3.2 Supply of wood and charcoal from common forest of Navarre.**

| | **1895** | **1905** | **1915** | **1925** | **1935** |
|---|---|---|---|---|---|
| Physical units | | | | | |
| Charcoal (loads) | 167,254 | 89,355 | 85,283 | 76,307 | 34,195 |
| Wood (cubic metres) | 4,984 | 9,774 | 11,934 | 28,946 | 50,518 |
| Charcoal (loads) | 100 | 53 | 51 | 46 | 20 |
| Wood (cubic metres) | 100 | 196 | 239 | 581 | 1,014 |
| Monetary units (pesetas) | | | | | |
| Charcoal | 218,090 | 151,130 | 142,362 | 153,365 | 56,501 |
| Wood | 110,479 | 250,659 | 274,099 | 956,282 | 1,265,776 |
| **Total** | 328,569 | 401,789 | 416,461 | 1,109,647 | 1,322,277 |
| Charcoal | 66.4 | 37.6 | 36.6 | 13.8 | 4.3 |
| Wood | 33.6 | 62.4 | 70.4 | 86.2 | 95.7 |
| **Total** | 100 | 100 | 100 | 100 | 100 |
| Charcoal | 100 | 69 | 65 | 70 | 26 |
| Wood | 100 | 227 | 248 | 866 | 1,146 |
| **Total** | 100 | 122 | 119 | 338 | 402 |

*Source*: Files of the FPO.

these auctions in order to balance their budgets. It should also be taken into account that, in the time periods examined, municipalities faced a variety of expenditures such as maintenance and improvement of basic infrastructures (sewer systems, municipal roads and buildings, water supply, electrification, and so on) or services (healthcare, education, and charity) that the central Spanish state was unable to provide. Within this context, increased demand presented a good opportunity to obtain monetary value with very low economic costs, since the forests were areas of spontaneous production requiring scarcely any investment.

We should not conclude from this that the adjustment between supply and demand took place automatically or that the action of an 'invisible hand' marked a point of perfect equilibrium. Things could have been much more complex because forest markets articulated on public lands might have produced different economic forces that did not always pursue the same objectives. Thus, while village councils attempted to obtain gross incomes to deal with their budget deficits through commercialization, wood producers were able to obtain net profits according to wood price markets and exploitation and transport costs. If we also take into account the fact that there was competition between municipalities that supplied wood products to the market, it seems reasonable to suppose that strained commercial relations would have been frequent.

Table 3.3 shows the quotation prices (difference in percentage, between starting price—100—and price finally paid by bidders) of some auctions. This data provides an approximate idea of the adjustment problems between supply and demand that took place over time in different Navarrese regions. The general trend was that auction final prices were declining, although such affirmation should be clarified in certain senses. First, the main differences are in 1905, a date which coincides with the beginning of the peak of commercialization and when it seems that the market showed strong

**Table 3.3 Quotation prices of products sold from the common forest of Navarre.***

| | 1905 | 1915 | 1925 | 1935 |
|---|---|---|---|---|
| Area I | 125.3 | 147 | 117.6 | 109.5 |
| Area II | 50.5 | 103.8 | 98.2 | 93.6 |
| Area III | 82.7 | 123.5 | 95.7 | 83.8 |
| Area IV | 77.2 | 112.6 | 98.4 | 94.7 |
| Area V | nd | 134.5 | 98.7 | 101.4 |
| Area VI | nd | nd | nd | nd |
| Navarre | 83.8 | 124.3 | 101.7 | 96.6 |

*Auctions for which we have concrete data on final prices represent 32% of total auctions undertaken in 1905, 65% in 1915, 56% in 1925, and 37% in 1935.
*Source*: Files of the FPO.

imbalances in most parts of the province. Disconnection turned out to be evident in Area II (where quotation prices were very low)—an area traditionally specializing in charcoal production which might have begun to suffer the effects of energy transition and probably should have readapted the exploitation of its forests to the new situation. On the contrary, another important forest area of Navarre (Area I) already counted on certain advantages that could be related to the quality of the timber of its high-mountain pines, mainly used for construction, as well as transport facilities—via rivers—from forests to consumption centres. As a consequence, it was an area in which auctions attained more favourable prices for villages.

The situation in 1905 had changed considerably by 1915 due to a strong supply increase related to the exceptional demand created by the First World War, which altered the balance in favour of municipalities. Increasing demand for timber could have been related to import difficulties within the war context, forcing bidders to pay higher prices. However, this situation should be considered as contextual, since in 1925 and 1935 lower prices again predominated, with the exception of the Pyrenean valleys (Area I), where it seems that the advantages previously mentioned were still operating. For the rest of the province, in the last two chronological periods, prices generally were at somewhat lower levels.

## Environmental and institutional consequences of adaptation

Having described the adaptation of forest use to new economic requirements, we consider the effects such changes had at both institutional and environmental levels. Regarding environmental effects, Table 3.4 shows the evolution of Navarrese forests between the end of the 19th century and 1930. It reveals that the evolution of such areas again was different in different regions. In the case of Area VI, decreased woodlands can

**Table 3.4 Evolution of the forest surface of Navarre (1890–1930) (in hectares).**

| | 1890 | 1913 | 1930 | 1890 | 1913 | 1930 |
|---|---|---|---|---|---|---|
| Area I | 65,884 | 69,436 | 66,396 | 100 | 105 | 101 |
| Area II | 89,819 | 103,024 | 103,063 | 100 | 115 | 115 |
| Area III | 28,582 | 27,345 | 27,801 | 100 | 96 | 97 |
| Area IV | 31,785 | 32,800 | 35,390 | 100 | 103 | 111 |
| Area V | 10,564 | 10,479 | 8,166 | 100 | 99 | 77 |
| Area VI | 3,878 | 3,236 | 3,218 | 100 | 83 | 8 |
| Navarre | 230,512 | 246,320 | 244,034 | 100 | 107 | 106 |

*Source*: Summary of the Cadastre of Navarre 1882–1895, 1913, and 1930.

be explained by the major expansion of surface area through increased ploughing during the first three and a half decades of the 20th century, rather than by the forest exploitation carried out in those provinces (which was practically nonexistent). Something similar occurred in Areas III and V, where increased ploughing was combined with greater commercialization of forest products, which also could have contributed to woodland extinction.

In the largely forested areas of Navarre (Areas I, II, and IV), the increase of forest commercialization was accompanied by a parallel increase of woodland surface area, which was clearly manifested in Areas I and IV and less obviously manifested—with minor fluctuations—in Area II. These figures should be treated with caution, since part of the increase simply could be due to the poor quality of 19th-century data, which were probably improved in subsequent measurements, providing a more satisfactory measure of reality. However, the figures seem to show that systematic forest damage was not a consequence of increasing wood commercialization.

This idea seems to point to the fact that increasing forest exploitation reached levels that could be considered sustainable insofar as they did not hinder forest regeneration. However, we should also take into account an element that contributed to forest conservation, based on the reforestations undertaken in Navarre during the time-period considered, through two complementary mechanisms.

The first of those mechanisms was related to commercial exploitation of forest products, since the FPO obliged municipalities to devote a certain portion of their income to reforestation. It was not exclusive to provincial administrations, since the Spanish state, at least since 1877, also collected 10% of the income from forest products in municipalities, which was then used to finance reforestation (Gómez Mendoza 1992). However, Navarre's peculiarity lies in the fact that the percentage devoted to reforestation was not collected by an administration but by the villages themselves, who were in charge of investing it under the supervision of the FPO, which conditioned subsequent use permissions on the reforestation and land-enclosing tasks. As a contribution to this, the county council established provincial nurseries in various places where villages were able to purchase cuttings for reforestation. Although we have no figures that demonstrate the effectiveness of this mechanism, the evolution of forested areas, already demonstrated in Table 3.4, allows us to conclude that reforestation made a significant contribution to the conservation of forest wealth. Such behaviour is likely to be attributable to the vigilance exerted by the administration but also, and perhaps above all, to peoples' awareness that forests entailed wealth and should be maintained in good condition.

The second level at which reforestation was undertaken was the direct intervention of the provincial administration (FPO), which, since the beginning of the 20th century, devoted an increasing part of its budget to reforesting various areas of the province. Table 3.5 shows the evolution of such expenditures, ordered by regions, and shows two separate phases of reforestation. From 1905 until the mid-1920s, the county council devoted quite modest amounts to reforestation tasks, almost exclusively focusing on existing areas of great forest wealth, especially Area II. Such small amounts were devoted to helping municipalities with their reforestation and land-enclosing expenditures and can be considered as simple supplements to tasks already developed at the local level. However, since 1926, the strategy and priorities of the FPO changed. In fact, the scant 19,000 pesetas invested annually between 1921 and 1925 became more than 200,000 pesetas during the following five-year period and exceeded 500,000 pesetas between 1930 and 1935. In addition, the lion's share of these funds were devoted to those areas (such as Areas III and V) that, despite having excellent natural conditions for forestry, were suffering increasing deforestation as a result of both wood commercialization and ploughing expansion. Once again, Area VI—where deforestation was also wreaking havoc—was neglected by the provincial administration.

Reforestation tasks undertaken at these two levels also had consequences for forest composition by predominant species. Table 3.6 shows the evolution of this composition through the first third of the 20th century for Navarre as a whole. Two conclusions can be inferred from its analysis. First, autochthonous species tended to increase with the exception of beech, predominant in Area V, which tended to decrease as a consequence of the deforestation process suffered by this area. Such behaviour should be associated with reforestation undertaken by the municipality, which seems to have been based on the use of traditional

**Table 3.5 Public expenditure in reforestation in Navarre (five years average in Pesetas).**

| | 1905–1910 | 1921–1925 | 1931–1935 | 1905–1910 | 1921–1925 | 1931–1935 |
|---|---|---|---|---|---|---|
| Area I | 74 | 320 | 42,502 | 2.4 | 1.7 | 7.7 |
| Area II | 1,035 | 13,294 | 57,004 | 34.2 | 70.4 | 10.3 |
| Area III | 593 | 2,528 | 124,918 | 19.6 | 13.4 | 22.6 |
| Area IV | 548 | 1,991 | 43,020 | 18.1 | 10.5 | 7.8 |
| Area V | 777 | 334 | 225,479 | 25.7 | 1.8 | 40.8 |
| Area VI | 0 | 407 | 59,404 | 0.0 | 2.2 | 10.8 |
| Navarre | 3,027 | 18,874 | 552,325 | 100 | 100 | 100 |

*Source*: Summary of the budget of the Provincial Government of Navarre, 1905–1935.

**Table 3.6 Evolution of forest surface of Navarre by tree species.**

| | 1890 | 1913 | 1930 | 1890 | 1913 | 1930 |
|---|---|---|---|---|---|---|
| Oak | 47,312 | 51,839 | 50,699 | 100 | 110 | 107 |
| Holm oak | 15,407 | 15,118 | 14,842 | 100 | 98 | 96 |
| Beech | 81,143 | 87,063 | 87,045 | 100 | 107 | 107 |
| Pine | 24,085 | 26,344 | 29,666 | 100 | 109 | 123 |
| Other | 11,678 | 12,951 | 15,771 | 100 | 111 | 135 |
| Scrubland | 50,883 | 53,007 | 45,986 | 100 | 104 | 90 |
| **Total** | 230,508 | 246,322 | 244,009 | 100 | 107 | 106 |

*Source*: Summary of the Cadastre of Navarre 1882–1895, 1913, and 1930.

species, contributing to the conservation of forests in which beech and oak predominated. However, especially between 1913 and 1930, greater direct intervention of the county council in reforestation coincided with a greater growth of coniferous forests, the species most commonly used for reforestation in Areas III and V, as well as in the minimal actions undertaken in Area VI.

In summary, if one compares reforestation characteristics with the evolution of forest area shown in Table 3.4 and Table 3.6 respectively, the conclusion is quite obvious. In Navarrese forest areas, reforestation undertaken by municipalities—with the support and also, partly, the coercion of the FPO—made increasing commercialization compatible with conservation in the greater part of its autochthonous forests. In the rest of the province, the belated action of the FPO turned out to be insufficient to slow down a deforestation process that could not be stopped, despite the fact that resources devoted to reforestation increased, at least in certain areas. Additionally, urgent actions undertaken since 1926 consisted primarily of the introduction of non-autochthonous coniferous species, changing the physiognomy of the traditional Mediterranean forests.

Combining these environmental results with the institutional framework allows us to connect with an ongoing debate about the existing relationship between property rights and environmental conservation. The 'tragedy of the commons' concept proposed by Hardin (1968) spread the idea that common property is incompatible with wise resource use and, consequently, should be transformed either into private property or into state property, with the aim of eliminating common management inefficiencies. However, the case of Navarrese forests disproves Hardin's theory and is a part of the critical response to the alleged 'tragedy' (Hanna and Munasinghe 1995; Ostrom 1990).

At the beginning of the 20th century, the majority of public lands in Navarre remained in the hands of villages and were managed by village councils that, in spite of supervision by the FPO, maintained a great

degree of independence in decisions on use. In fact, villages primarily proposed the amount of products to be auctioned, without the obligation of adjustment in plans of use that were never undertaken and, therefore, never completed for municipal woodlands. Furthermore, those villages were the very ones in charge of undertaking reforestation tasks, taking 10% of the proceeds of commercialization for the purpose. The situation turned out to be compatible, on one hand, with the insertion of forest activity into a progressively more commercialized framework and, on the other hand (as will be demonstrated below), with a tendency towards conservation of woodlands that was mainly manifested in the largely forested areas of the province.

Despite this achievement, the process in northern Navarre should not be seen as a complete success since the economic and social implications of forest commercialization can vary greatly. Due to the two different approaches underlying the actions of both municipalities and producers that we have already mentioned, market imbalances were likely to favour, above all, middlemen and industrialists, since imbalances allowed them to develop their activities at the expense of village incomes. It should not be forgotten that, in certain specific cases, producers overexploited the forests by cutting down much more timber than the amount stipulated by auction conditions or by extracting products through inappropriate methods, thus damaging the woodlands as a whole. We know little about the effects that increasing commercialization had on the population of municipalities, but such commercialization is very likely to have interfered in household uses and forced many neighbours to maintain a broader relationship with markets (since they were hired as the workforce for forest, or to be themselves small or large producers). This produced ambiguous social effects and, in turn, led to varying levels of benefit for the different social groups involved. In short, doubts overshadow certainties, but this complex adaptation to a changing situation evolved in northern Navarre within a framework in which resource privatization and state privatization played no significant role and, consequently, evolved on the basis of a common management that, in spite of changing conditions, was maintained throughout the whole period without (according to our analysis of the data) generating any significant environmental degradation.

## Conclusions

This analysis of what was happening in the common forests of Navarre at the beginning of the 20th century allows one to reach certain conclusions about mountain areas and their adaptation processes. First, it seems

clear that mountain societies had a response capacity before the changes in demand for timber took place. This reaffirms the idea that mountain economies have not been autarchic areas, operating outside the rest of the economy, but are traditionally connected to markets and influenced by market changes. Second, in the case of Navarre, it should be emphasized that such adaptation happened to maintain the common nature of the forests, which did not need to be privatized or state controlled in order to adapt to increased demand. Several institutional modifications—such as the promotion of an auction system organized by village councils and supervised by the provincial government—were sufficient. This form of operation gave a more prominent role to private initiative for direct forest exploitation, leading to strains among municipalities, the FPO, and private interests. However, these strains did not rise to a level that paralyzed adaptation to the changed situation. Moreover, the commercialization of timber meant incomes that comprised a substantial part of municipal budgets and were devoted to improving the basic services offered to members of the communities (Iriarte-Goñi 2003). In this sense, it can be supposed that adaptation did indeed contribute to restraining emigration—although it did not absolutely stop it—in those villages that adapted best to forest markets in the time periods considered. Finally, the data suggest that the increase in commercialization of timber did not entail damage to the forest areas; far from it: everything seems to point to the conclusion that the areas in which greater deforestation and forest species substitution took place were those in which forest products were not commercialized. On the contrary, within the primary forest area, incentives for reforestation and direct investment from the FPO combined to prevent the loss of forests' overall areas.

In short, during the first decades of the 20th century, the common forests of Navarre succeeded in adapting to a changing situation with a quite remarkable degree of success. The key factor seems to have been their particular response to changes in demand, which did not promote abrupt alterations in traditional forms of operation, but merely readapted them, allowing local governments to keep a high profile in decision making and establish certain mechanisms for supervision and appropriate incentives. This form of adaptation is a lesson for our present concerns.

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*Chapter 4*

# Social and Environmental Conflicts in the Planning and Management of Natural Resources in the Aragon's Pyrenees: The Case of Los Valles Occidentales

*Xavier Carbonell*

## Social-environmental conflicts and protection policies

All nature conservation plans and programmes affect the interests and expectations of many social players. In its implementation, conservation work frequently gives rise to conflict. In practice, environmental social conflicts based on explicit controversies (disparities in information, opposed interests or different sets of values) involve at least two groups that have apparently incompatible aims and are affected by each other's opinions, decisions, or behaviours. This sort of conflict generally leads to confrontation between social groups and the officials responsible for implementing environmental policies (typically civil servants) and is generally due to disagreements in the establishment and regulation of access, the availability and quality of natural resources, and environmental conditions in a territory.

The individual and collective dimensions of any given social-environmental conflict—that may include economic, social, cultural, scientific, or strictly environmental aspects—adds complexity to the task of analyzing it. Moreover, it involves processes, people, and institutions that interact in the public sphere, all of them with different values and perceptions, and for whom any action affecting the environment and their quality of life has absolutely disparate meanings. The assessment of environmental social conflict ought to be based on a multidisciplinary approach that takes into account both its characterization and its often blurred boundaries. For instance, we frequently see that a large number of social issues can be at the source of manifest opposition to a given environmental policy. Our main interest here is to establish whether groups are confronted for substantive reasons or for merely procedural

ones. At the same time, it is necessary to identify the parts of conflict (social players and their interactions) as well as the resources these actors make use of when addressing conflict (legal action, protests, negotiations, and so forth). Additionally, and in order to understand the issues emerging from natural resources in our societies, it is essential to consider the influential role of the media.

Having assessed conflict, we can address its management through various approaches: political, administrative, judiciary, or alternative conflict management. These approaches encompass a series of tools: mediation, negotiation, or arbitration between the groups in a dispute. Among the existing techniques, community mediation is based on participatory principles that promote rapprochements, foster an orderly exchange of arguments and viewpoints, and reach agreement whenever possible. Our reflection on the case described in this chapter adopts this multifaceted approach, focusing on analysis and implementation. We apply a range of legal and social intervention tools, always with mediation in mind.

## Social-environmental conflicts in the Pyrenees

Competition for exploitable natural resources and the management of scarce resources originates a large number of human conflicts. A great many factors intervene, and these can be biophysical (human and animal carrying capacity), territorial, political, sociological, cultural, or even psychological. The Pyrenees are a good example of a territory in which the importance of control, management, or inhabitants' access to specific natural resources such as pasture or hunting areas, wood, or even water (CNEARC 1994) has led to disputes at the local level that were resolved in very different ways, according to the power of local societies, to their degree of stratification (Pujadas and Comas d'Argemir 1994), and their capacity to establish alliances. Historically, the Pyrenees offer many examples of conflict resolution achieved strictly at the local level. This is the case of negotiations in conflicts dealing with the use of grazing land such as the *facerías* (cross boundary treaties), arbitration (performed by a former pasture police, now retired), and even mediation (which is illustrated by the mediator role played by the Ansó Valley between inhabitants from Roncal and Baretous, where the ritual of the 'Tribute of the Three Cows' takes place in Navarre).

However, times are changing and consequently the dimension of conflicts currently taking place in the Pyrenees has changed. Although it is still possible to see 'the usual folks' who live in the vicinity, and also boundary stones (which is a good sign: the Pyrenees are still alive!), those who have the most influence are the 'outsiders' who act in an exogenous manner. Conflicts are aggravated by the interest of third parties in the

territory and by the fluctuating allegiances of local people, which depend on whether the new situation is regarded as a threat or an opportunity. For instance, the case of open conflicts generated by:

- the classification of protected natural sites at the regional level (natural parks) or European level (the Natura 2000 network, which has an alpine biogeographical region that includes an important extension of the Pyrenean mountain range);
- species protection policies (such as those responsible for reintroducing the brown bear or the more recent appearance of wolves in the Eastern Pyrenees);
- the development of new alpine skiing circuits and its environmental impact as a consequence of the infrastructures associated with such facilities, that are designed to provide services to a massive influx of seasonal visitors (as in the case of Formigal in Espelunciecha or Baqueira Beret in the Àrreu Valley);
- the urban development of recent years, referred to as the 'brick-paving' process[1] that is dramatically transforming Pyrenean villages like Biescas;
- golf courses associated with massive town planning (as in Badaguás) for temporary residents;
- the likeliness of the construction or extension of large dams, which offers a grim perspective of inundated valleys and abandoned villages such as Santaliestra, Jánovas and Liesa (Bergua 2003).

Moreover, other conflicts that occur in the Pyrenees have less media coverage, as is the case of making mountain land compatible (traditional uses versus new recreational uses such as rapid and canyon descents or quad trips, that are increasingly in vogue), or the repercussion of the enactment of basic legislation in the Pyrenees, which is not conceived to provide solutions for environmental problems locally (of which Order 200/97 regarding the partial sectorial directives for livestock breeding activities and facilities is an example).

The future of livestock breeding and management of pastures is definitely affected by these 'new' environmental conflicts that in turn signify, for instance, difficulties in improving accessibility to roads in summer mountain passes due to existing space protection regulations and an almost exclusively tourist-oriented economy, or important changes in the management of flocks (especially sheep) due to the reintroduction of the bear. In some cases, the new economy of the Pyrenees does not only have an influence over the loss of the best reaping meadows as they are sold as land for the building of holiday residences, but also over the difficulties of making compatible the various uses of the land (as is the

case with fences that are an obstacle for hikers, or the habit of walking with unleashed dogs that sometimes interfere with shepherds herding their flocks).

Among other reasons, these conflicts emerge because of the scarce participation of local actors in the planning and management of the territory. It must also be acknowledged that active management of natural resources—precisely for being communal—has been lost due to depopulation and a decrease in productivity. This aspect refers one to the thesis of Hardin and his 'Tragedy of the Commons' (1968), in which he describes communal resources as being headed to disappearance because of the conflicting interests among their users. Although the thesis is currently outdated, the fact is that the communal, non-private character of some of the territories was the criteria used to include them in the Natura 2000 network. From a legal standpoint, it seems obvious that some environmental policies appear to have been designed to classify land as public property in a concealed manner (Darnaculleta 2003).

Despite the many underlying causes of these open conflicts, they share a number of common features such as the way in which environmental policies are imposed when applied (be it water or environmental protection policies), the fact that the local population is barely empowered to decide on the urban and territorial model they would like for the Pyrenean territory, and the impression (whether false or not) that everything is done for the benefit of non-residents. As a result, these conflicts are leading many mountaineers, Pyrenean inhabitants, nature lovers, and investors to situations in which interests and values are manifestly confronted, and which are voiced through a number of personal, group or institutional websites.[2]

## Protection policies, instruments and regulation

Three per cent of Aragon's land is declared as natural protected areas in the Spanish territory, and almost 30% is included within the Natura 2000 network. The Aragon's Pyrenees hold the highest percentage of protected areas: specifically 14.5% of its territory is protected while almost 37% belongs to the Natura 2000 network. In the case of the Valles Occidentales, 56% of its area is classified as protected sites and 85% is within the Natura 2000 network.

As with the rest of Spain, the protection of natural heritage in Aragon did not count on direct participation of the affected communities. Historically, the declaration of protected sites was done by urgent decree, which excluded any shared vision in the drawing up of such projects. This disjunction is seen in some natural parks of Aragon,

and also in the way they are managed, counting on very little local participation.

With regard to species protection policies, Aragon currently counts on three action plans dealing with endangered species (the Bearded Vulture Recovery Plan, the Lesser Kestrel Habitat Conservation Plan and the Freshwater Mussel—*Margaritifera auricularia*—Recovery Plan). With regard to the brown bear, a Conservation Strategy in the Pyrenees has been drawn up by the Spanish Ministry of the Environment and Spain, France and Andorra are currently coordinating a plan for the recovery of this species. These plans are often linked to the urgency of governments in protecting some species, which is regarded with distrust by the local population for the following reasons, among others:

- the lack of transparency regarding information about the plans, often due to misunderstandings between fully aware technicians in charge of the conservation plan and politicians, who are seldom convinced of the importance of the measures to be adopted;
- the lack of transparency in data availability (for instance, how many bears, where and why do they move?) is understandable in order to avoid unlawful actions, but is also an obstacle for getting farmers actively involved in the management of the protected species (planning enclosure tasks according to animal movements);
- lack of coordination between the different governments (Navarre, Aragon, France) that ought to be working jointly, since the bear is not restricted by administrative jurisdiction. To date, institutional contacts between governments are not effective enough.

There are a wide range of technical and legal instruments in Spain (see Múgica and Gómez-Limón 2002). Aragon has the following plans directly related to our case: Natural Resources Management Plans (*Planes de Ordenación de los Recursos Naturales*, PORN), the Master Plans of Use and Management (*Planes Rectores de Uso y Gestión*, PRUG), the management plans for Sites of Community Importance (SCI), the Special Protection Areas for Birds (SPA) as well as the bearded vulture, the grouse, and the brown bear's recovery plans.

The case presented here was included in the *Second catalogue of Environmental Best Practices* (López Martín et al. 2004) that was promoted by the Department of Environment of the Gobierno de Aragón, the Aragon's regional administration, as a benchmark of citizen participation in the planning of a protected site. The project aimed at modifying the expediency that characterized the creation of protected natural sites. However, one shall see the reasons that created a feeling of discouragement and desperation as the 10-year-long experience came to a close.

## The Valles Occidentales PORN and the process of declaration as Natural Park

We adopt here the Valles Occidentales' Natural Resources Management Plan (PORN) as a framework to discuss the social process that accompanied its implementation. The process covers a period that began in 1997, when the PORN was enacted by the Gobierno de Aragón and ended in January 2007 when the Valles Occidentales Natural Park was created. The park, located towards the western end of the Aragon's Pyrenees, includes the municipal areas of Fago, Ansó, Hecho Valley, Aragüés del Puerto, Jasa, Aísa and Borau. These municipalities, which total 2,200 inhabitants, are within the territorial boundaries of the PORN that was formulated along with the Gobierno de Aragón, the town councils, the Forest Communities, associations and neighbours of 12 villages in the area (Fago, Ansó, Aísa, Aragüés del Puerto, Borau, Echo, Embún, Esposa, Jasa, Sinués, Siresa and Urdués).

The territory's main asset is an extremely well preserved natural environment, which, to date, is the economic basis of its inhabitants, and who exploit its various resources ranging from communal pasture exploitation in extensive livestock breeding and orderly exploitation of woodland to the services sector, specifically those in the tourist sector. In order to protect the natural resources of this territory, a number of protection regimes were applied since the 1960s: it was declared National Hunting Reserve in 1966, Birds Special Protection Zone in 1994 and became an extension of the SPA in 2000 and the Sites of Community Importance, which overall affect 85% of area within the PORN.[3]

The PORN was drawn up based on a project[4] that was mainly aimed at getting the local population involved in the planning and management of the territory and of the future of the Natural Park.[5] The project also envisaged the implementation of a strategy for sustainable development that would make compatible the social and economic activity of these municipalities with the exploitation of its natural resources, which constitute the Councils' main source of income. The preparation of the PORN was the point of departure for all the Councils involved to jointly and officially undertake and encourage the territory's social and economic development whilst ensuring sustainable exploitation of its natural resources. At the same time, this process allowed for collective reflection on the participation in environmental decision-making and other important topics such as the future development model and on territory-based management formulas.

In view of the complexity and duration of the process presented here, it is not possible to assess all the resulting perspectives and interpretations

in a few lines. Therefore, the main aspects are highlighted here from the perspective of conflict management:

- the process is endogenous: local bodies are organized institutionally and also as neighbours, in an autonomous manner and without directly depending on the regional government (which is the competent authority for the development and implementation of public policies);
- a visionary and strategic process in which the territory goes ahead and beyond the institutional and legal capacities of the regional government;
- its perverse effect: in spite of being an innovative process; it is looked down on and silenced by the Department of Environment, which takes over some of the procedures, methods and organization models for political gains derived from potential social benefits resulting from site protection (job creation and the strengthening and management of public bodies that are highly influenced by the interests of political parties).

Aside from lessons learned or any other events, the drawing up of the PORN of the Valles Occidentales was a benchmark for Aragon; it helped lay the groundwork for procedures to develop other neighbour involvement processes in the territories in which protection formulas had so far been implemented by urgent decree (as is the case of the natural parks of Posets-Maladeta and the Guara Canyons and Mountains, for instance).

## Conservationism as an ideology

A wide range of postures held by associations and international organizations are inspired by conservationism, protectionism or environmentalism. They all share a common interest: the protection of specific species or ecosystems (Folch 1977). This approach is well-known in the Valles Occidentales through contacts with the French Society for the Protection of the Brown Bear (*Fonds d'Intervention Eco-Pastoral*, FIEP) the Spanish Society of Ornithologists (SEO/Birdlife), ADENA-WWF (*Asociación para la Defensa de la Naturaleza*, World Wildlife Fund which had been interested in implementing a forest certification project) and the Nature Conservancy.

Based on Wolf's (1999) suggestions, we shall now study the negative ideological connotations of conservationism by assessing the ways in which this ideology produces an *a priori* criminalization of those who earn a living through the exploitation of natural resources, which, in turn, leads to restrictions over resource exploitation based on strictly ideological criteria that may create conflict with traditional uses. Likewise,

the implementation of territorial planning and regulations give rise to relocation of resource and territorial management.

The ideology that supports an unconditional defence of nature is also shared by most of the international preservation movements as well as by the Hiking Society of Catalonia, which advocates the protection of national heritage by preserving nature and argues varying degrees of aesthetic and even historic values to do so (Boada and Zahonera 1998; Folch 1999). For instance, it is worth noting that the recent proposal of having an Alt Pirineu Natural Park was originated by the Hiking Society of Catalonia (*Centre Excursionista de Catalunya*, CEC) and the Natural Heritage Defense League (*Lliga per a la Defensa del Patrimoni Natural*, DEPANA); likewise, the Mountaineering Federation of Aragon (*Federación Aragonesa de Montañismo*) is apparently presenting a proposal to declare Anayet as a protected site.

Understanding conservationism requires an understanding of the underlying idea of power. Conservationism is more associated with abuse of power than with excess of power.[6] Regional social consensus faced local opposition and confrontational views during the drafting process of the PORN for the Valles Occidentales. Conservationism is hegemonic at the regional level and especially in cities, that legitimizes political practices. In turn, affected populations perceive these practices as abusive. Conservationism as a political ideology could also lead to *de facto* abuses by arguing a defence of the general interest (hegemonic discourse) and regional power would be legitimized to apply their criteria to regulate natural resources and carry out territorial plans without taking the affected populations into account (communal or private landowners)—all of which would be endorsed by an existing social consensus arguing the convenience of protecting specific sites and landmarks by virtue of their natural wealth.

The creation of natural protected sites in a democratic state would respond to this ideology of conservationism, while it would also establish that there is no abuse of the law because the majority renders it legal and legitimate. Such a situation would explain some of the demonstrations that took place in the French Pyrenees, where Councils were opposed to the establishment of the Natura 2000 network because the Habitats Directive states in Article 6, section 4:

> Where the site concerned [in the implementation of a given project] hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. (Council Directive 92/43/EEC, 21 May 1992)

This wording is a matter of great concern for many mayors who do not want to hear a word about the Natura 2000 network, as they declared in a meeting held in Arette and Oloron in which the municipalities of Aragon were invited to join in the demands by forming a common front.

Radical conservationism generates radical responses that try to balance what is perceived as extraordinary external aggressions. Before 1997, the PORN zone was declared a National Hunting Reserve and later became an SPA which did not, apparently, create any conflicts. In contrast, when the PORN was established and the ecologists publicized the conflict, a number of ideological postures emerged. Following the ecologists' denunciation, a series of threatening graffiti appeared ('bear=fire' or 'PORN=ruin') along with controlled arson incidents, verbal threats addressed to government technicians, and destruction and burning up of guards' automobiles and forest machinery.

Conservationist ideology is made up of a complex mix of elements of different origin. Radical conservationism attempts to relocate management and planning of natural resources outside the territory through a political legitimization that goes beyond the local scope of both the Councils and Forest Communities.

Were it aimed at persuading people towards the need for 'selective conservation of specific sites by virtue of their ecological value,' the underlying ideology of conservationism would be effective. The Candanchú skiing station (which belongs to the municipal area of Aísa, included in the PORN) has been 'consequently' left out of the regulation plan. Surprisingly, the Natura 2000 network proposes to exclude zones in which there are plans for big developments with major participation of the public and private sectors (extensions of skiing circuits, dams, and so forth). Thus, the criterion of ecologic coherence (which includes similar ecologic units under the same protection formulas) is suddenly overlooked.

The discourse formulated by those in power is particularly efficient for the elites (a group of persons, a social class that produces discourse or adopts the ideology that justifies it). Conservationism falls within this conceptual framework: its discourse builds consensus among a group that is not part of the local (rural) population although their actions have an impact on the lives and private and communal property of the population.

Conservationism as an ideology can work in favour of those affected by a PORN proposal (or any other environmental policy): their group interests can be reformulated so that, by adopting the discourse of conservationism, they can achieve their political and economic aims. Such aims would be even more difficult to attain from a

rural and peripherally geographic perspective. Conservationism can help establish alliances with powerful groups; it allows for the fusion of a diversity of cultural aspects and values of groups that are distant from one another such as urban elites and country communities. This is extremely attractive for the urban elites who are in want of a sense of tradition and who avidly seek nature. Thus, the ideology of conservationism is no longer owned exclusively by those who formulated it. Different groups can incite it while it can be adopted by groups that did not take part in its preparation. This could be the case of conservationism, in which the ruling class particularly seeks a legitimizing effect.

## The Brown Bear Recovery Plan in the context of the PORN preparation

> No one is more interested in preserving our environment than we are; we want it to be exactly the same way as we have enjoyed it for generations. We don't want to be lectured by the authorities on how they think innovations and exploitation should be carried out; we don't want all this to be altered by means of the recovery of bears, wolves, snakes or whichever other predators they are thinking of introducing to complicate our lives. (Statement quoted in the Brown Bear Recovery Plan submitted in 1999 by a now retired inhabitant of Hecho)

As a point of departure, this section describes how in 1998 in the context of the Gobierno de Aragón, there was an attempt to implement the Brown Bear Recovery Plan in the territory for which the Valles Occidentales PORN was being drafted. The preparation of this PORN led to a recent (albeit unenthusiastic) declaration of this zone as a natural park, which was in addition to other protection formulas already implemented in the zone: the National Hunting Reserve of 1964, the Special Protection Areas for Birds (SPA) since 1994, and the inclusion of most of the territory in the Natura 2000 network as a rich biodiversity zone that includes a large number of autochthonous vegetative associations of the Alpine and Mediterranean biogeographical region established by the European Union.

Finally, and due to the fact that certain endangered species (the bear, the grouse and the white-backed woodpecker) are regularly or occasionally sighted in the area, the Species Recovery Plans[7] (SRP) will be implemented for them. An SRP may encompass all the necessary measures to eradicate the 'danger of extinction' of any species. Although we focus here on the Brown Bear Recovery Plan, the following background is common to most SRPs:

- the species to be preserved is a 'bio indicator' of the good state of conservation of the habitat in which the species lives;
- these species are sensitive to any kind of disturbance;
- historically, the species inhabited a larger area, but human factors (population growth, assiduousness, forestry uses or hunting) led to a gradual decline in population to the point of risking its survival.

The aims stated in the case of the Brown Bear Recovery Plan are:

- to maintain the brown bear population by means of 'territorial management' and by focusing on the causes that have led to its nearly becoming extinct;
- to determine whether the habitat allows for maintaining a viable population;
- to assess the possibility of reinforcing the population so as to allow for the recovery of the genetic heritage of the existing specimen.

SRPs are based on population census that in most cases are not viable. In practice, these plans attempt to reinforce the number of specimen by introducing a new population with specimen that are as genetically and ecologically compatible as possible. In addition, a list of proposals (guidelines) is presented to ensure sound management of hunting, forestry and pasture uses and the survival of the endangered species.

For most species, recently implemented SRPs are the last stage of a long succession of legal instruments that were designed for protection, and owing to the obligation of implementing specific protection regulations as established by Law 4/89 and Law of Protected Natural Sites of Aragon (*Ley de Espacios Naturales Protegidos de Aragón*, LENPA).[8] The focus on SRPs is specially justified here because they specifically show ways in which use management must be modified to the benefit of the species to be protected. For instance, by enforcing cable and/or animal traction hauling of timber instead of using machinery or by placing fences in mountain passes even if livestock is no longer enclosed.

We focus here on the Brown Bear Recovery Plan and the social conflicts that were followed by outbreaks of violence in the form of threats, graffiti, and the burning of vehicles in the Valles Occidentales in 1999, when the neighbours were informed that they had less than a month to state their opinion with regard to the plan proposed by the Department of Environment. Similar episodes took place in other protected natural sites of Aragon such as the Posets-Maladeta Natural Park or the Ordesa y Monte Perdido National Park. We shall also take stock and reflect on other species conservation interventions such as those implemented

for the bearded vulture or the goat of the Pyrenees (the *Capra pyrenaica pyrenaica*, now definitely extinct). The implementation of all SRPs include the following features:

- the intervention and implementation of the plan is carried out in haste, given the state of emergency ('there is only one bear left'), or due to the pressure of certain ecologist groups whose actions and claims become unquestionable and legitimized by a degree of social consensus at the national level;
- important amounts of money transferred, which is never enough from the standpoint of those responsible for biodiversity conservation, or which is always poorly utilized according to the affected population;
- plans to raise awareness and 'educate' the local population about environmental issues and to make them aware of the importance of the brown bear in the valleys.

In its document *Community Planning for the Use of Soils in Protected Areas*, the Nature Conservancy claims that its mission is to preserve plants, animals, and nature communities that represent the earth's life diversity and protect the land and water that are essential for its survival. The foundation publishes a series of training manuals for an international programme oriented towards work partnerships with a number of conservation organizations in target regions (mainly in Central and South America), with the aim of:

> . . . strengthening their capacities and commitment with biological diversity conservation and with the ecosystems that are needed to sustain life by giving support to institutional development, the management of protected areas, long-term funding and the application of information technology and science in decision-making with regard to environmental conservation. (Troya Villacorta and Arroyo 2001)

The handbooks bear the logos of the Nature Conservancy and the US Agency for International Development (USAID).

It is relevant to inquire whether proposals for the conservation of certain species are a new form of colonialism. This hypothesis, which would appear to be more easily proved in the case of countries of the South, could also be extended to—and have similar implications for—the Western Aragon's Pyrenees. In this context, it is worth remembering that the mayors of the Pyrenees were explicitly opposed to losing control over the territory, due to the emphasis placed by the Natura 2000 network on endangered species, which would eventually pose legal restrictions on the development of projects in the mountain areas.

The concept of development, its limitations and implications, have been widely criticized lately. The concept of sustainable development implicitly adopted in the preparation of SRPs has not brought a change of paradigm since the reorientations proposed around the same tradition do not produce any significant change. Most of the plans for the protection of sites and species account for a continuity of Eurocentric and ethnocentric visions of development and the relationship of man with the environment. Based on urban centricity, these visions apparently propose new ways and models for alternative development but are in fact ways in which those in power are able to legitimize their interventions in other territories. Although the SRPs could become an emblem of how the mainstream and expansive model of development can be reformulated, they eventually focus solely on the survival of a specific species and fail to criticize the paradigms of modernity, progress, and the omnipotent power of science. Consequently, the stem cells of the last specimen of the goat of the Pyrenees are preserved in the hope of being able to clone a new specimen. One would tend to ask, along with the inhabitants of the Ordesa y Monte Perdido National Park, whether the efforts to recover this species are worthwhile considering that they failed to reach a minimum number of specimen to avoid the negative effects of consanguinity.

## Conclusion: a critique of the concept of development and the SRPs

Since 1998, the LENPA of Aragon advocated that conservation and public use of protected sites should be fostered while also ensuring the social and economic development of the people affected by the protection regimes. Unlike previous legislation that was essentially conservationist, this recent trend requires the promotion of development of local populations. With regard to the logos that were previously mentioned, it is worth giving thought here to the similarities that exist in the critique of the concept of development and the critique of the SRPs.

Deconstructing and challenging the concept of development itself is a recent trend (Escobar 1995; Martinussen 1997). The assessment of the social impact of recovery plans for local (and not introduced) species came at a later stage (Balée 2006; Shepherd and Whittington 2006). As official interventions, SRPs take into account both species recovery and development (sustainable in this case). Sustainable development emerged as a concept and was popularized in the 1990s.

However, a significant number of cases attest to the potentially devastating and erosive effects of bad management of the natural heritage, for example, by unnaturally introducing—or introducing without control—new animal or vegetable species in a territory (the marmot of

the Pyrenees, the American crab and some river cyprinids) and its consequences for local populations, at least with regard to the use and management of natural resources. This chapter focuses on the local species recovery plans, that is, species that are endangered or at risk of becoming extinct (as is the case of the bear) and that were once a part of the natural and cultural heritage.

It is relevant to highlight a number of ideological aspects encountered in both the SRPs and in development as a classic concept. Whereas nature in the SRPs is regarded in purely economic terms, complex social and natural aspects inherent in the protection of natural sites and species are reduced and simplified through a series of mechanisms:

- the methods to assess the benefits derived from the protection of natural sites are several methodologies (for instance, contingency assessment, market prices, hedonic pricing, transportation costs), which are attempts to count on a tool to estimate their recreational value strictly in economic terms. In other words, what is the cost of still being able to enjoy having bears in the Pyrenees? Again, the question is put to us as mere consumers with a view to find a purely economic answer;
- methodologies employed by some American NGOs that focus on species protection interventions based on an economic assessment and on cost-effectiveness criteria, and which are applied under the premise of the scarcity of financial resources that should be allocated where they can be most multiplied;
- embracing costing criteria to the absurdity of establishing emissions trading operations between countries when it is a proven fact that we are all in the same boat. Global warming is also affecting the Pyrenees, according to recent evidence of changes in the flora and receding glaciers in the Pyrenees presented at a Menendez Pelayo International University (UIMP) conference in Formigal;
- existing universal sustainability indicators: experience tells us that such indicators, which have basically been formulated from a technical and scientific perspective, are not shared by all cultures and peoples affected by and involved in the site to be protected.

The 'reification' of nature as is seen in SRPs, in conservationism as an ideology and in the very concept of development, has evolved into a species protection movement that is socially legitimized by conservationist values of Northern urban societies, sometimes to the point of fetishism. This obsession for the contemplation of nature is based on the following ethnocentric, Eurocentric, and urban-centric ideologies:

- theories of modernity and the Enlightenment project a worldview, hence the singular fear of any form of mythical knowledge that may challenge rationalism;

- contempt for—or ignorance of—any form of local knowledge that scientific knowledge has tried to 'demystify' through a secularization process;
- species are recovered but the idea of progress is not challenged, and it continues to be a secular value;
- individualism with universalistic aspirations: SRPs ignore collective rights over resources. The fact that, in traditional societies, the individual sphere is dependent on the community is not taken into account. In our case, for instance, the use of natural resources is communal.

The world is regarded outside history: often overlooking the fact that biodiversity (protected sites and species) is the result of human interaction with the ecosystem. In this case, a number of pasture-and-meadow plant communities included in the Alpine biogeographical region of Natura 2000 are the result of centuries of co-evolution with the livestock of the area. It is also worth mentioning that public policies and values are articulated with a clearly paternalistic rhetoric: 'We must undertake conservation ourselves because they are not aware of what they are losing.' Such is the underlying rhetoric of a number of awareness-raising and recovery plans.

To conclude, it is worth noting that SRPs have a tendency to be framed within geopolitical strategies shared by conservationist discourses. There is enough evidence that a number of American and European protection organizations work on site protection projects that are closely related to international development cooperation policies.

## Notes

1. *Heraldo de Aragón* daily, Wednesday, 14 December 2005.
2. In particular, the claims of social movements expressed in www.coagret.com and www.ecologistasaragon.org/nieve.
3. The PORN includes the entire municipal area of the villages mentioned with the exception of the skiing station of Candanchú (which belongs to Aísa).
4. The Department of Environment joined in 2003 a collaborative agreement between the Community of Valleys and the Fundación Avina subscribed in 1999, with the intention of treating this experience as a pilot project for the coordinated management of natural sites.
5. The PORN is a preliminary document drafted before the creation of a natural park in this case. It does not necessarily imply the creation of a protection formula attached to it.
6. The haste in the implementation of protection formulas and the Natura 2000 network does not respond to mechanisms of excess of power but to operational objectives which must be met by EU administrative bodies as a condition to receive structural funds.
7. Species Recovery Plans are the relevant legal and technical instruments adopted for the management of endangered species. They set the guidelines for the

technical, scientific, and administrative implementation of species conservation measures and programmes.

8. A ban on bear hunting was decreed by the Ministry (1967) and it was declared a protected species (1973), having been included in lists of endangered species (Bern Convention in 1982, National Catalogue of Endangered Species in 1990, Habitats Directive priority species classification in 1992, Catalogue of Endangered Species of Aragon in 1995).

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*Chapter 5*

# Highlands and Lowlands: Political Ecology and Territorial Conflict

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Water, the natural resource on which all life depends, can also be understood as a metaphor. It deserves serious study both as a natural and a symbolic resource. Multidisciplinary approaches to the study of water embrace numerous different branches of knowledge, creating an ever more complex array of facts, figures, and arguments. It seems as necessary to make this point as it is to suggest that everybody concerned should step back from the view that there is only one serious standpoint for water studies, which all too often tends to be that related with one's own training and work. It is good to hear the opinion of outsiders whose knowledge comes from different sources, but who research and examine what water means to people in all its diversity and complexity. Water is for drinking, irrigation and cleaning. It is the pleasant gurgling of a brook and the patter of raindrops. It is to swim in and sail on; but it is also a matter for thought, feelings, evocation, and tales, the stuff of dreams and representations.

When human groups talk about themselves, they make representations using symbolic artefacts to give expression to emotions, ideas, values and beliefs about their inner and outer worlds, about the passage of time, nature, life, death and the hereafter, sickness and health, bonds and power. This is culture—it is not merely a miscellany of disparate notions but a structure within which people give meaning and expression to their relationships with objects and with each other. Water, therefore, has no culture. That is, culture does not form a part of water in the same way as hydrogen and oxygen, and yet water drives culture. This difference explains why the standpoints of social anthropology cannot be the same as those of chemistry, hydrogeology, or hydraulic engineering. In our discipline, we do not study water as such, but rather the manner in which human beings represent the uses and benefits of water. This is the theoretical foundation for the arguments presented here. Despite the specificity of the disciplinary viewpoint, however, the issues described

in this chapter are important to everyone, across the social and natural sciences.

## The promise of water

Recent events in Spain may serve as an initial introduction to the symbolic nature of water. In September 2000 the Spanish government, at the time in the hands of the conservative Partido Popular, announced its National Hydrological Plan (*Plan Hidrológico Nacional*), which was followed by a string of demonstrations against the policy over a period of months. At the heart of the debate was a plan to transfer 1,050 $hm^3$ of water from the Ebro River to the Mediterranean coast of Catalonia, Valencia, Murcia, and Almeria. In Aragon, opposition drew the region's people onto the streets of Zaragoza in a huge demonstration in October 2000, with some observers counting as many as 400,000 protesters.[1] Demonstrators turned out in such numbers because of the emotional dimensions of the issue, which mobilized the feelings of the great mass of the population. Their reaction provides a thought-provoking illustration of the relationship between water and culture. The demonstrators were of course protesting against nothing other than a technological development, since water transfers require the construction of a system of dams, canals, aqueducts, reservoirs, and pumping stations. Such an unquestionably complex hydraulic engineering scheme of course demands the mobilization of enormous human, technical, and financial resources. The protesters, however, were not motivated by the significance of this technological effort in itself, but rather responded to deep-seated fears about what they might lose as a result of the scheme. The object of their desire was water, specifically the water planned to be transferred from the Ebro. The transfer of 1,050 $hm^3$ of water per year from one river system to others was viewed as a loss: The resource moves beyond its physical, measurable nature and enters another realm in which water is the object of collective representation and affects. This is the realm of culture.

Towards the end of the 19th century, Spain was in the throes of a crisis,[2] that particularly affected agriculture. From these conditions would spring a well-constructed proposal based on a representation of the salvation of Aragon and the Aragonese people. Joaquín Costa[3] was the creator and the great advocate of this proposal. Aragon was to be saved from poverty, neglect, and emigration by harnessing its water resources and transforming the land through irrigation. In itself, this is no more than another technical and political proposal, and it had indeed already been made by Enlightenment thinkers in the

18th century. What was new and original, however, was how Costa, in particular, presented it to the people at large, wrapped in brilliant, biblically inspired rhetoric that identified the arid land with a present defined by failure and pictured the same fields reawakened by life-giving water as a kind of 'promised land' of future prosperity. This was the 'promise of water' and it was embraced by Aragon as the 20th century dawned. Meanwhile, the 'promise of water' became the ideological foundation for a political identity that mobilized many people in Aragon as a way of identifying themselves as Aragonese. Thus, popular regionalism has tended to view Aragon as an arid, failed land, defeated and neglected, even where this image was at odds with the facts, particularly as the 20th century progressed. Nevertheless, this representation became strongly rooted in the collective consciousness and still persists. Indeed, this was the collective feeling that animated those hundreds of thousands of protestors who took to the streets of Zaragoza one Sunday in October 2000.

Costa employed an anguished discourse that stressed the slow death of the arid land in the throes of persistent drought. This description, however, also includes an allegorical discourse about the slow death of the community. On 8 September 1892, Costa gave a speech in the town of Barbastro in which he said:

> Farmer, I do not know whether there is now any salvation for this prostrate country of ours. I do not know whether we have fallen so low that there is no longer any power with the strength to lift us. I do not know whether the deadly sickness that has wasted Highland Aragon and pushed it towards death for half a generation now has progressed too far, whether any effort to save the land must now perforce fail. . . . So, as I came down the mountain this morning and saw to the right and left of the empty road the rows of olive trees still loaded with fruit after so many and such cruel droughts, it seemed to me as if the poor trees might be making their last effort and spending the last of their sap to provide the oil for the last rites of this poor, anguished country. And I, like a village doctor, have come here to join you at the surgery to consider whether we may essay a desperate reaction by means of revulsions and cautery, or a transfusion to renew the old, exhausted blood, whose enfeeblement is so eloquently depicted in this succession of crises, which have jeopardised not just the greatness and future but the very existence of our country. (Costa 1911)

The array of metaphors deployed in this brief paragraph is quite extraordinary. Overall, they refer to the country,[4] which is to say 'us,' the people indissolubly linked to the land. The land is dry and the

country is dying; or the land is in its death throes after 'so many and such cruel droughts' and the community is sick and must be cured. The whole of this carefully constructed rhetoric turns on water, which is represented as the life-giver and cure. Let us not forget that Costa was in fact talking about water policy, which is a planned and calculated strategy based, moreover, on detailed scientific knowledge and technological prowess. What he was seeking to transmit to his audience, however, was a narrative, a kind of story or tale, which would speak to them of life and death, health and sickness. To explain why this discourse had such power, then as now, to arouse emotions, we must consider both what it says and how it says it.

Any narrative that speaks of life and death is in itself intensely emotional. The wellspring of feeling lies in the rhetorical apparatus employed, in the allegorical construction of meaning for a community that aspires at a given time and in a given context to represent itself as such. However, this rhetoric is subject to the acid test of symbolic efficacy, and here Costa passes with flying colours. Rhetoric, of course, can be vacuous, leaving the listener cold, or it can move and mobilize a crowd or even a whole society. In this light, we need to ask why the 'promise of water' proved so effective as a rhetorical device. In the first place, it was because Costa was more than familiar with the ways of the Aragonese farmer, because he had been born into this world himself, and his ethnographical researches meant he knew it in extraordinary detail. The peasants' basic values, and especially their attachment to the land, form the starting point for the discourse. Secondly, Costa was well aware of the critical situation of the Aragonese peasantry in the latter years of the 19th century, unable as they were to benefit from the expanding capitalist markets for farm produce. Thirdly, Costa's rhetoric feeds on a repertoire of narratives and images that was well known to his listeners—the Bible. He alludes constantly to the exodus of the Israelites and their search for the Promised Land, to Moses, to the passage of the wilderness, to Moses' rod that brought forth water from the desert and the captivity of the Jews in Babylon. In this way, he was able to recreate images that his listeners could easily identify with, because they were well versed in the Bible stories, after a childhood of catechism in the parish churches, and they were familiar with Sacred History. Emotions were unlocked by the tale told of life and death and the way it was told through a succession of images that were graven in the minds of Costa's audience as the stories of their childhood years, which, in all likelihood, formed the ground in which their beliefs were rooted. Thus, we see values and beliefs in operation, unleashed by a discourse that succeeded in combining a rhetoric of distress with the promise of

redress through a felicitous prosperity. Water symbolizes the future as a promise—made in a present context and narrated in terms of the harsh realities of a community in crisis—which can only be moved on hearing a well-told and familiar story with which each listener cannot but identify. In the opinion of this author, Aragonese society has been very willing to listen to, accept, and recreate these discourses of distress, at times even appropriating them as a useful strategy to represent a specific collective identity.

## The Pyrenees and the construction of dams

The widespread development of irrigation in the Ebro Valley that was necessary to fulfil the 'promise of water' required the construction of dams[5] in the Pyrenean highlands (Tables 5.1–5.2). Many of these dams were built between 1920 and 1976, and their social impact gradually mounted until it caused a reaction from the populations affected. The end of the Franco dictatorship and the advent of democracy in the late 1970s favoured opposition, which has become increasingly visible and vocal up to the present day. This is the other side of the coin, to which we shall now turn our attention.

**Table 5.1 Major Reservoirs in the Aragon's Pyrenees and Pyrenean foothills.**

| Reservoirs | $hm^3$ |
|---|---|
| Canelles | 678.0 |
| Yesa | 447.0 |
| Mediano | 438.0 |
| El Grado | 400.0 |
| Santa Ana | 237.0 |
| Sotonera | 189.0 |
| Escales | 152.0 |
| Barasona | 92.0 |
| Búbal | 72.0 |
| Ardisa | 25.0 |
| Vadiello | 16.0 |
| La Peña | 15.0 |
| Belsué | 13.0 |
| Lanuza | 11.0 |
| Calcón | 3.6 |
| Arguis | 3.0 |

*Source*: Confederación Regional de Empresarios de Aragón, 1994.

**Table 5.2 Major Irrigation Systems on the Left Bank of the Ebro River.**

| Irrigation systems | hectares |
|---|---|
| Riegos del Altoaragón | 110,000 |
| Canal de Aragón y Cataluña | 98,000 |
| Urgel-Piñana | 81,000 |
| Bárdenas | 64,000 |

*Source*: Confederación Regional de Empresarios de Aragón, 1994.

New plans to build more dams were proposed after 1976, and, in some cases, the official procedures required actually to undertake the work were carried out. However, the majority of these schemes have either been suspended or definitively cancelled. Conflict over water has marked political, social, and cultural life in Aragon in recent years, sometimes placing the districts of the Pyrenees and the Pyrenean foothills in one camp and those of the Ebro Valley in the other. One now examines the cultural basis for this conflict—a key issue if we wish to understand the fortunes of the Pyrenean highlands.

In recent years, numerous schemes involving the future construction of large-scale water infrastructure, such as dams or hydroelectric utilities, have resulted in a confrontation between the drivers of the project—basically government and the future beneficiaries—and the affected populations, frequently with the support of different sectors of public opinion (Mairal et al. 1997). An initial analysis of these situations reveals the substantial differences between the codes applied in the rationalization and representation of these projects. Supporters based their actions on political, economic, and technological factors to ensure the legal underpinnings and technical and financial viability. These were to be the parameters for possible discussion and debate, and any argument that did not fit within this framework was dismissed as irrelevant or unhelpful. At the same time, however, the perceptions, rationalization, and representation of the situation on the part of the populations affected by these schemes were of a completely different nature, resulting in arguments that were in effect beyond the pale, because they were not in principle either legal, economic, or technical. In fact they were cultural.

The construction of a large dam entails the end of the farmland that will be flooded or, in the case of the surrounding areas, expropriated. For the government, this space has contractual significance only as an expropriated asset, which may therefore legally be bought and sold. For the populations affected, however, it is the bedrock of their culture. Because of this, it evokes feelings and emotions, memories

and identity among local people, a tradition that binds the population to the land. The construction of risk, then, arises precisely from the realization among local people that these links and traditions will be broken if the dam is built. At this point, a process of cultural creation begins, leading to the configuration of the objects at risk. Home and land, with all that these things mean for the individual, will disappear beneath the waters. The village and its networks of mutual interdependence in the deepest sense of 'community' will be flooded, or its future will be constrained by the impact of expropriation. The viability of the district as a space for development will be compromised by the impact of the dam. Finally, the wider country will be affected in a region already deeply conditioned by the historic costs sustained as a result of the territorial imbalances caused by a succession of water infrastructure schemes. The impact of a dam strikes all of these cultural spaces, making them objects at risk, because the future construction of new infrastructure would mean their destruction, or at the least irreparable damage.

In an open letter the Municipal Council of Campo, a village in the Ribagorza district of Huesca that was threatened with flooding between 1976 and 1986 due to the planned construction of a large reservoir with a capacity of over 600 $hm^3$ to regulate the Esera River, addressed the communities of farmers benefiting from irrigation provided by the Canal de Aragón y Cataluña, who were firm supporters of the scheme, in the following terms:

> We are men who wish to live on our land, which we love deeply, like yourselves. We are men who have created a living community with our families, neighbours and friends, labour and means, traditions and customs, festivals and games, ways of speaking, memories and loyalties to our forebears, and to lose all of these would kill our souls . . . we are men who fear exile . . . we are men of Aragon . . . we are the same as you. (Mairal et al. 1997)

This too is emotionally charged rhetoric. This community has sought to define itself in the face of the possible inundation of the village, and it does so by emphasizing its profound links with the land and the local culture. To understand the shared notion of risk attributed to these schemes, we may observe that the cultural construct was rich in emotive assessments related with the land, home and family, and the village as a living community, all within a creative process that reconstructs the past.

This cultural creation is highly expressive in terms of risk, and it makes constant use of the rhetoric of distress. The populations affected employ numerous metaphors to define events, although almost all of

them make play with the confrontation between life and death, and sickness and health—for instance, the concept that schemes for dams will 'kill' local life and the community will 'sicken'. The shield raised against these evils is a reconstruction of identity and a resort to memory. The community itself is idealized, drawing on those elements of popular culture that seem most admirable and most in jeopardy. Thus, the land, for example, is depicted both as an object at risk and at the same time as a symbol of survival, involving an idealized bond between the community and the soil as a succession of memories. This 'culturalism' is a kind of feedback, in which some aspects are imaginatively reinterpreted to construct symbols of survival to protect the objects at risk (Mairal and Bergua 1998). Meanwhile, the protection of objects at risk—whether land, home, the village, or the countryside—acquires a dimension of emotional meaning as these things become imbued with a new reality that intensifies bonds. Feeling thus enhances value.

These two examples show how the water policy, which is nothing but a development policy based largely on scientific and technological premises, was able to gain support among the population because it was represented through a singular, emotionally charged discourse, but also how the population affected by development of this kind rationalized a legal, political, economic, and technical operation in the form of the construction of a new dam by symbolizing what were identified as objects at risk—'things,' such as the land, the home, the village and the countryside that were both loved and in peril—and activating emotions.

The transformation of political, economic, scientific, and technical concerns into a narrative of life and death through a rhetorical, and therefore, cultural device involves stirring up feelings, precisely because the disjunction between life and death is highly emotional. Discourses announcing that the end is nigh after a long drawn-out agony constitute a metaphor that is unquestionably political. The technique has frequently been used as an instrument to mobilize society. Its force is essentially rhetorical through the appeal to the emotions. At times, such a discourse may serve to stir up the masses, but also to manipulate them, while at other times, it rests on poetic and narrative qualities capable of representing the deeply rooted values, ideas, and concepts inherent in a given culture. By narrating the collective agony of an 'us' that is identified with such distress, the past, present, and future of the community can be imaginatively constructed. This discursive combination involves a backward view that seeks to connect with an idealized past, the diagnosis of a ruinous present and the invention of a future laden with promise. Thus, the overarching rhetorical device appeals to the memory or the absence of memory, recreates a tradition and frequently seeks to establish an identity, as in the case examined here.

## Highlands and lowlands

We have examined water as a symbolic resource capable of activating the representation of identities and stirring up emotions. In Aragon, however, two different representations exist, and they clash. The tooth-and-nail defenders of water projects use Aragonese irredentism to argue that damming rivers to irrigate new land will save the country. Meanwhile, the last-ditch opponents of such schemes refuse to allow the construction of dams and extension of reservoirs to flood yet more villages and valleys in the Pyrenean districts, assuming a highland identity,[6] even if what they aim to preserve is a reinvented highlands. It is nevertheless true that these identities cross and sometimes even meld, resulting in some fascinating contradictions. They also allude to clearly defined communities, with the lowland irrigators on one side and the social movements and associations that oppose the construction of dams on the other. Moreover, these groups are territorially associated with the lowland districts and the Pyrenean highlands. Despite this, these groups are to some extent complementary, and the influence of Aragonese irredentism is traceable in both.

The discussion so far has explained how culture is activated around water. However, this activation is not the same for the two groups, and water is not represented in the same way. For the lowlanders, water is, symbolically, the object of all affects, and its absence or loss is what unleashes emotion, but for the highlanders it is water that causes the loss of land, which is the object in this case of affects and emotions. A dammed river thus means a different thing depending on one's standpoint. Having made this comparison, we may observe that land and water underlie the whole symbolic device and its *modus operandi*. The hearts and minds of the peasantry revolved around these twin ideas, and it was this combination that marked the adaptation of the population to the land over the centuries. Some districts were, and remain, arid but had a lot of land, while others had a lot of water but little usable land. Joaquín Costa understood this dilemma clearly, and the combination he chose as the basis for his water policy discourse was the one that defines the Aragonese lowlands and, indeed a large part of Spain in the most unfavourable terms: a lot of land, even too much, and scarce water. Costa himself allegorically imagined and described a landscape that was inspired by the arid fields of the Ebro Valley, comparing it to a 'promised land' that was neither more nor less than a utopian Central Europe. Water infrastructure would lead society from one landscape to the other. Costa himself formulates his proposal thus:

> This is the water of your creative river: for you, the conservatives, it will bring order; for you, the liberals and republicans, it will bring independence and liberty; for the poor, bounty; for the wealthy, opulence; for the

> town, abundant revenues, public fountains, sewerage, avenues and street lighting; for the priests, piety and virtue; for the teachers, consideration and respect; for the usurer, ruin; for the jailer, leisure; for the artisan, a workshop transformed into a factory; for the emigrants, the road back to their abandoned homes; for the debtor, the lifting of charges; for the bachelor, a house and family; for the roads, iron rails and locomotives; houses for the slum quarters; villages and hamlets for the barren lands; moisture and clouds for the air; trees for the birds to nest in; nitrogen and iron for the blood; hygiene and cleanliness for the skin; joy and expansion of the soul; and strength and riches for the resurrection of our poor Spanish fatherland, which will never again be great or take a seat among the gathering of the nations, or spread over the planet or play an active part in the making of contemporary history while it remains an arid land. (Costa 1911)

The fabulous utopia of wealth and freedom to be enjoyed by the whole nation, so vigorously described by Costa in this speech, remained in the minds of the farmers scratching a living from their arid fields as a dream and a promise, and it has since been used by politicians of all stripes. The redemption of the parched land at times meant the redemption of Aragon and at times the redemption of Spain. The years went by, but salvation was not in sight. On the contrary, the work progressed at a snail's pace, and the area under irrigation remained tiny. It was only after many years that the transformations wrought by water infrastructure schemes would achieve any significant progress for Aragonese farming, which eventually doubled the total area of irrigated land. In all this time, so much had changed that the farmers who had dreamed of its benefits were old men by the time the water finally arrived. Meanwhile, the 'promise of water' had taken so long to materialize that the younger generation of farmers had become sceptical and removed from the moral underpinnings of the irredentist rhetoric. When water was finally brought to La Almolda, a village in the arid Monegros district in the province of Zaragoza only in the first half of the 1990s, a middle aged farmer told this author that his father had been waiting for it since 1911 and, now an old man, had wept to see it. For his son, however, the availability of water was rather a source of problems than bounty: he had to undertake the redrawing of plots, arrange financing to cover the cost of transforming the fields and assure the viability of irrigation over a reasonable time horizon with the few young people left who were willing to continue in farming. All this and more gave cause for concerns that distanced this farmer yet further from the world in which his father had lived, waiting and hoping for the promised water to appear.

As these irrigation works progressed, and even before, reservoirs were being opened in the Pyrenean districts of Aragon, where the best conditions existed to store the thousands of hectometres of water required. Numerous highland valleys were flooded or affected, including Yesa with the Canal de Berdún reservoir, the Tena Valley with the Búbal and Lanuza dams, the Ara River with the Jánovas dam, the Cinca with the El Grado and Mediano dams, the Esera with the Barasona dam and the Noguera Valley in Ribagorza with the Canelles and Santa Ana dams. Here, the territorial framework was the opposite to that of the lowlands. Water was abundant, and what was lacking was land. In these glacial formations, the only good quality lands capable of producing successful crops were on the valley floor and river banks, and this land was always scarce. The reservoirs thus flooded the best fields, depriving the local people of any chance to thrive. For many years, the land lost to expropriations was valued only in quantitative terms, and the qualitative environmental and social impacts of development were concealed by statistics that reflected a relatively small area in hectares. The argument from the principle of the 'general interest' was therefore possible, since the area of land flooded was always much smaller than the area of land that could be transformed by irrigation using the water backed up behind the dams. This assessment, however, ignored the functionality of the land in both the highlands and the lowlands, as well as the key qualitative value of flat land on the valley floor and riverbanks in the Pyrenees, which was of course the first to be expropriated. All too often, the issue was resolved not by the exchange of a small area of land for significant compensation, but by sacrificing one territory for the benefit of the other. Nevertheless, it took time for this realization to dawn on the local inhabitants, and it did not, apparently, form part of the experience remembered by those who suffered from the most egregious expropriations (construction of the major reservoirs at Yesa, Mediano, El Grado, Búbal, Lanuza, Jánovas, and so on), which took place during the Franco era. The regime would, of course, have curtailed any attempt at protest on the part of the people affected, whose only option was to sell up and move.

However, the collective memory did retain a recollection of what had happened in the form of narratives describing numerous episodes of this period, such as the tale of one farmer who committed suicide because he could not bear to see his fields expropriated, or the story of an old woman who refused to leave her home and had to be rescued by boat when the waters of the reservoir were already rising up the stairs of the house. Another such story tells of the use of force in the school at Jánovas and the demolition of some of the village houses, while the neighbours were still living next door. These and other episodes gradually took on an almost legendary status and were told in the home, at

social gatherings and festivities, eventually becoming part of an oral tradition that was only written down and spread by the press, literature, and in popular music when political conditions began to change. It was not until the restoration of democracy that the impact of this combination of water and land, which was again highly unfavourable though in the opposite direction, began to take shape slowly in an allegorical discourse describing the preservation of an imaginary highland landscape. The end of Franco's dictatorship clearly opened up new possibilities, and these have developed vigorously right up to the present. The first move was made in Esera in 1976, when the villagers of Campo, Morillo de Liena, Navarri, and Las Colladas, which were to be flooded by a 600 $hm^3$ reservoir mobilized to put up a fight.[7]

This new discourse has also adopted a diverse rhetoric, which is the result of numerous contributions starting with the collective memory as told by the victims in their own communities, but also including the ideas propagated by certain intellectuals and politicians, the music of a number of singer-songwriters, the idealism of newcomers arriving from many different places in search of an imagined and romanticized landscape, the ideologies spread by some experts and protest associations, which have grown to become a powerful social movement, and ending with the sometimes naive but always enthusiastic songs of the folk group, La Ronda de Boltaña.[8] We thus come full circle to a well-defined discourse that has taken shape, for example, in documents such as the *Manifiesto en Defensa de la Montaña* published in 1998 in the highland town of Boltaña by all of the associations resisting the construction of any more large dams in the Pyrenees (Mairal 2004).

This discourse sometimes appeals to Costa, who, though himself a highlander from Graus, had singled out the arid Aragonese lowlands for salvation. One can only suppose that Costa must have been astonished when he came down into the lowlands to find such vast, flat plains, comparing the spectacle with his home in Ribargorza by the Esera River, where there were but scant acres suitable for farmland. To understand this, it is enough to visit the highlands and see the terraces, many now abandoned, that were built with such labour in the Pyrenean valleys to win a few square metres more for the plough. However, one must consider, for example, the wide plains that stretch as far as the eye can see around Bujaraloz in the Monegros district to understand the difference between the highlands and the lowlands, what each territory has and does not have. For the lack of water in a flat, dry plain can be as dramatic as the lack of arable land in the mountains.

So much land on one hand and so little on the other, yet so little water here and so much there. The great paradox of this water policy is that it was conceived to bring the territory back into balance, and yet

it has contributed to imbalance because it was envisaged as a one-way street. The lowlands' thirst should have been considered in relation to the scarcity of land in the highlands. Unfortunately, it was not. Today, however, when negotiations seem to have opened once again, this should be a pivotal argument, because however much the lowland farmers need water to irrigate their fields and raise production, the highlanders need their scarce land to maintain the quality of their habitat.

## Notes

1. This figure would seem somewhat exaggerated, given that Aragon has a total population of around 1.3 million. Furthermore, it is usual for the organizers to talk up the number of people taking part in demonstrations. In any event, numbers were extraordinarily high, and there can be no doubt that this was the largest demonstration ever to be held in Zaragoza.
2. This was the crisis of 1898 and, in particular, the great farm crisis of the later 19th century, which is commonly referred to by historians as the *crisis finisecular* or turn-of-the-century crisis.
3. Joaquín Costa, jurist and politician, campaigned at the end of the 19th century for the reform and regeneration of Spain. He was intensely active in promoting the construction of new water infrastructure such as dams and canals in order to increase the area of land under irrigation and modernize Spanish agriculture. He died in 1911 although his idea of a new water policy would live on, profoundly influencing the measures implemented in Spain over the course of the 20th century (Cheyne 1972).
4. The term 'country' as used by Costa here deliberately lacks any political associations, but rather alludes to the concept of the local. Costa is in fact using the same term as his listeners: the 'country' is an 'us' attached to the land.
5. The first dams built in the Aragon's Pyrenees were designed for hydroelectric production. The building of large dams to regulate the flow of the Pyrenean rivers and develop large-scale irrigation systems began in the 1920s after the construction of the Barasona reservoir on the Esera River. In Aragon the *Bardenas*, *Riegos del Altoaragón* and *Riegos del Canal de Aragón y Cataluña* systems today exceed 200,000 hectares of new irrigated land. Across the Pyrenees, meanwhile, including Navarre (in the case of the Itoiz dam) and Catalonia (Rialb), opposition to the construction of large new dams has grown.
6. The Pyrenean districts of Aragon are generally referred to as the 'highlands', in contrast to the plain or 'lowlands'.
7. After 10 years of intense mobilization, the Manuel Lorenzo Pardo project, a 600 $hm^3$ dam on the Esera River, was finally abandoned by the government on the grounds that it would have an excessive impact. Nevertheless, two new alternative projects (Comunet and Santaliestra) were proposed in the ensuing years, and it was not until 2005 after fierce protests and a series of court cases that the Spanish Ministry of Environment finally abandoned the idea of a new dam on the Esera River.
8. This folk group has popularized many songs alluding to the opposition struggle against the construction of new dams in the Aragon's Pyrenees. In general, this involves a certain 'invention' of the 'highlands', abetted by 'neo-rural'

enthusiasts, greens, politicians, intellectuals, second-home city-dwellers, tourist entrepreneurs, and so on, who form a fascinating amalgam. Meanwhile, nationalist and regionalist activity and the ever larger flows of cash ploughed into the creation of heritage and museums of almost anything have gradually produced a new Pyrenean reality, which is very different from what might be considered truly 'traditional'. All of this requires some degree of representation, resulting in a certain *mise-en-scene*, which might be seen as turning the highlands increasingly into a nature and spiritual reserve based around a multiple pastiche operating within the framework of a new cultural consumerism.

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*Chapter 6*

# Twenty-First Century Transhumants: Social and Economic Change in the Alta Ribagorça

*Ferran Estrada, Eli Nadal, and Juan Ramón Iglesias*

In the year 2006, the farmers of the Alta Ribagorça[1] moved 18,000 of the 27,000 sheep they had between the summer pastures in the Pyrenees and the winter ones located in the Ebro Valley and other low-lying areas of Aragon and Catalonia. The animals were moved by lorry or else on foot, following the old drove roads. These figures show the importance of transhumance today, even though it might appear to be an activity with no place in modern stock farming. This fact raises several questions: What is the motivation for the practice of transhumance today, given its importance in sheep farming in the area? Is it a marginal activity, nostalgic and irrational, or, on the contrary, is it a practice that forms a fully integrated part of a tightly regulated, industrialized stock farming sector? How does it fit in with other economic activities in a globalized, tourism-oriented economy? This chapter sets out to make a contribution to answering these questions on the basis of ongoing research work into transhumance in the Alta Ribagorça, examining the context in which it takes place and its relationship with the different public authorities' policies towards stock farming.[2]

## Studies of transhumance

There is a wide range of work by geographers, historians, and ethnologists concerning transhumance in Spain.[3] Despite this, some of these texts coincide in qualifying transhumance and pastoral farming as geographically determined or 'natural' practices, as they are based on exploiting spontaneous vegetation and the movement of people and animals according to the biological cycle of pastures located in different settings. They are therefore considered to be homogeneous activities that have continued unaltered for millennia until the changes of the second half of the 20th century.[4] From this point of view, the present or recent past of transhumance are shown as the image of an ancient world 'which

is finally coming to an end' (Miralles 2005: 11). For this reason, and in order to document what in their opinion represented the traditional system that existed up to the 1970s (Zapata 1991: 411), these authors stressed the features that to them appeared more authentic, ignoring or rejecting those they considered to be more divorced from the traditional model. For example, they describe the horns used in the past to store juniper for treating the sheep, but do not mention the commercial medication used today.

In our opinion, this image of transhumance as an ancestral, 'natural' activity on the point of disappearing does not stand up to scrutiny. Firstly, the movement of flocks follows the natural cycle of the pastures, but this practice depends also on social, economic, demographic, political, and cultural factors. More specifically, it depends on the systems regulating and organizing the uses and reproduction of the factors of production (pastures, animals, water, paths, cabins, and workforce) at any given point in history. Secondly, because historically sheep farming has depended on markets outside the mountains and has gone on because of its relationship with these markets (Collantes 2004: 82; Ros 2001b, 2004: 33).[5] Furthermore, stock farming was among the sectors driving the inclusion of mountain regions into the capitalist market during the 19th and 20th centuries (Collantes 2006: 356). Finally, despite the repeated announcements of its disappearance, the practice of transhumance has continued up to now, even if the journeys are not always on foot.[6]

Overall, in line with Roigé et al. (1995), the authors of this chapter see transhumance as a strategy enabling pastures located in different ecological settings to be exploited in a complementary way throughout the annual cycle, in a particular social, economic, demographic, and political context. It is a historical activity but not one that can be explained as a survival from the past. Transhumance today is different from what it was 50 or 200 years ago: the people involved, the size of the flocks, the destinations and calendar of movements, the orientation and organization of production, and its relationship with other social and economic activities have all changed. Nevertheless, modern transhumance cannot be understood solely in terms of the present, and must be seen in the light of the changes that came about in the Alta Ribagorça and the Pyrenees in the course of the 20th century. For this reason, the context in which transhumance is practised today and the processes of change it underwent in the course of the last century are outlined below.

## The geographical, economic, and demographic context

The Alta Ribagorça is made up of the valleys that form the head of the Noguera Ribagorzana River, in the central part of the axial Pyrenees: the

Barravés Valley with the Noguera Ribagorzana River, the Boí Valley with the Noguera de Tort River, the Castanesa Valley with the Baliera de Castanesa River and the Viu Valley with the stream of the same name. This is a high mountain area, with altitudes ranging from 800 metres at the bottom of the valleys up to over 3,000 metres at the peaks. About 60% of the 638 km$^2$ making up the area lies above 1,500 metres in altitude, which makes it difficult territory to exploit for agriculture.

The climate is Alpine in nature above 2,000 metres and sub-Alpine below this line, with an average annual precipitation varying between 1,000 and 1,300 mm, some of it in the form of snow. Average annual temperatures range from 5ºC in the highest villages to 9ºC in the lowest (Vila 1990: 42). Altitude, relief, rainfall, and temperature all contribute to a kind of vegetation in which woods and pasture take up most of the land.[7] According to the 1999 INE Agrarian Census, cultivated land accounted for 1.5% of the area covered by farms, wooded land took up 22.9%, permanent pasture 57.7%, and the remaining 17.9% was classified as 'other land'.

The municipalities making up the area studied have a total of 4,486 inhabitants (municipal census of 2006; see Table 6.1),[8] distributed unequally between 56 inhabited settlements.[9] While 59.3% of the residents are concentrated in two settlements—Pont de Suert and Vilaller, with 2,075 and 584 inhabitants respectively—there are 49 villages with less than 50 people, accounting for 10.3% of the total population (see Table 6.2). Moreover, the population is concentrated in the bottom of valleys and next to the main communication routes: 61.7% of the inhabitants live in localities located below the 1,000 metres line (see Table 6.3).

The service sector (particularly tourism), the hydroelectric industry and building are the main economic activities in the Alta Ribagorça area, while farming occupies a secondary position in terms of both production and the population engaged in it.[10] This situation is the result of the process of integration into the capitalist economy undergone by the district in the course of the 20th century, which gave rise to profound social, economic, and demographic changes and has led to a position of subordination to and dependence upon an increasingly globalized world.

At the beginning of the 20th century, domestic units in the Alta Ribagorça had a diversified economy in which growing crops—loss-making and for consumption by the group itself—was combined with farming cattle, sheep, goats, and horses for the market. These activities were supplemented by forestry work and temporary emigration in varying combinations depending on each domestic unit's social and economic status. The activity with the largest role in the local economy was stock farming—of cattle, horses, and above all sheep—aimed at producing wool, meat, milk, and draught animals. This system was based on a cheap, plentiful workforce and its

main institutions were the household, the stem family structure and the village, with a logic oriented towards perpetuating the domestic unit.[11]

In this productive context, settlement was characterized by the existence of a large number of small villages relatively close to one another, located in the places with the easiest access to the necessary resources. Most villages were situated at between 1,100 and 1,500 metres in altitude, allowing their inhabitants to reach both the few areas suitable for cultivation at the bottom of the valleys and at medium altitude, and the high mountain pastures and woods. Thus, at the beginning of the 20th century more than two thirds of the area's population lived in settlements located at altitudes above 1,100 metres. Moreover, as evident from the tables, over half the inhabitants lived in villages with between 25 and 200 people.

The processes of industrialization and urbanization that began in Spain in the late 19th century and were sharply accentuated during the 1950s and 1960s played a fundamental part in the changes undergone by the area. Firstly, a population crisis resulted, reaching its most severe in the 1980s, as a consequence of emigration to urban areas of Catalonia and Aragon due to the demand for a workforce in industry and services. The exodus of whole families and young people caused a major decline in the population of most municipalities,[12] with the exception of Vilaller and Pont de Suert, which temporarily increased their populations thanks to mining and hydroelectric building projects (see Table 6.1).[13] Moreover, emigration also had a negative impact on the social perpetuation of the system because of the ageing population[14] and permanent male celibacy, which affected the heirs to households in particular.[15] The demographic crisis and the economic changes also brought about a spatial redistribution of the population: thus, the smallest settlements, those at the highest altitudes and the most remote were the ones that lost the most inhabitants and were even abandoned, while the majority of the population was concentrated in the bottom of the valleys and next to the main roads (see Tables 6.2 and 6.3).[16]

Secondly, farming underwent major changes. Population growth in urban and industrial areas, the rising incomes of their inhabitants and the economic changes that took place during the Francoist period stimulated changes in agrarian demand and a fall in agricultural prices, forcing farming and stock breeding to industrialize (García Pascual 1993). Moreover, the scarcity and rising cost of rural labour due to emigration encouraged the mechanization of agriculture. All this led to the abandonment of subsistence agriculture and breeding draught animals, and to changes in stock farming to adapt to the new labour and market conditions.

**Table 6.1 Population development by municipalities (1900–2006).**

| Municipality | 1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 | 1981 | 1991 | 2001 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bonansa | 421 | 443 | 398 | 375 | 367 | 333 | 276 | 118 | 66 | 70 | 80 | 101 |
| Montanui | 1,395 | 1,457 | 1,381 | 1,348 | 1,296 | 1,090 | 972 | 603 | 422 | 327 | 305 | 311 |
| El Pont de Suert | 1,782 | 1,763 | 1,884 | 1,749 | 1,672 | 2,911 | 4,710 | 3,056 | 2,961 | 2,285 | 2,150 | 2,317 |
| La Vall de Boí | 1,375 | 1,529 | 1,554 | 1,389 | 1,324 | 1,141 | 1,104 | 811 | 583 | 637 | 878 | 1,079 |
| Vilaller | 583 | 803 | 754 | 607 | 608 | 954 | 859 | 979 | 1,005 | 592 | 589 | 678 |
| **Total** | 5,556 | 5,995 | 5,971 | 5,468 | 5,267 | 6,429 | 7,921 | 5,567 | 5,037 | 3,911 | 4,002 | 4,486 |

*Source*: Drawn up by the authors on the basis of the *Instituto Nacional de Estadística* (INE), *Institut d'Estadística de Catalunya* (IDESCAT), and *Instituto Aragonés de Estadística* (IAEST) websites.

**Table 6.2 Settlements by number of inhabitants (1900–2006).**

| | 1900 | | | | 1950 | | | | 2006 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Size** | **No.** | **%** | **Pop.** | **%** | **No.** | **%** | **Pop.** | **%** | **No.** | **%** | **Pop.** | **%** |
| 1–25 people | 0 | 0.0 | 455 | 8.2 | 10 | 18.5 | 197 | 3.1 | 39 | 69.6 | 306 | 6.8 |
| 25–49 people | 17 | 34.7 | 509 | 9.2 | 15 | 27.8 | 548 | 8.5 | 4 | 7.1 | 156 | 3.5 |
| 50–99 people | 18 | 36.7 | 1,226 | 22.1 | 15 | 27.8 | 1,019 | 15.9 | 6 | 10.7 | 445 | 9.9 |
| 100–199 people | 8 | 16.3 | 1,294 | 23.3 | 8 | 14.8 | 1,126 | 17.5 | 2 | 3.6 | 213 | 4.7 |
| 200–299 people | 2 | 4.1 | 486 | 8.7 | 3 | 5.6 | 714 | 11.1 | 3 | 5.4 | 707 | 15.8 |
| 300–399 people | 2 | 4.1 | 727 | 13.1 | 1 | 1.9 | 350 | 5.4 | 0 | 0.0 | 0 | 0.0 |
| 400–499 people | 2 | 4.1 | 859 | 15.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Over 500 people | 0 | 0.0 | 0 | 0.0 | 2 | 3.7 | 2,475 | 38.5 | 2 | 3.6 | 2,659 | 59.3 |
| **Total** | 49 | – | 5,556 | – | 54 | – | 6,429 | – | 56 | – | 4,486 | – |

*Source*: Drawn up by the authors on the basis of population lists (INE).
Note: The variation in the number of settlements is due to changes in the census criteria and to the creation of the settlement of Pla de l'Ermita at the Boí-Taüll ski station in 1986.

**Table 6.3 Settlements by altitude (1900–2006).**

| | 1900 | | | | 1950 | | | | 2006 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Altitude** | **No.** | **%** | **Pop.** | **%** | **No.** | **%** | **Pop.** | **%** | **No.** | **%** | **Pop.** | **%** |
| Up to 1,000 m | 5 | 10.2 | 1,025 | 18.5 | 6 | 11.1 | 2,660 | 41.4 | 6 | 10.7 | 2,769 | 61.7 |
| 1,001–1,200 m | 18 | 36.7 | 1,381 | 24.9 | 23 | 42.6 | 1,610 | 25.0 | 21 | 37.5 | 568 | 12.7 |
| 1,201–1,400 m | 22 | 44.9 | 2,091 | 37.6 | 21 | 38.9 | 1,633 | 25.4 | 24 | 42.9 | 731 | 16.3 |
| Over 1,400 m | 4 | 8.2 | 682 | 12.3 | 4 | 7.4 | 526 | 8.2 | 5 | 8.9 | 418 | 9.3 |
| No data | – | – | 377 | 6.8 | – | – | 0 | 0.0 | – | – | 0 | 0.0 |
| **Total** | 49 | – | 5,556 | – | 54 | – | 6,429 | – | 56 | – | 4,486 | – |

*Source*: Drawn up by the authors on the basis of population lists (INE).

Thirdly, the demand for power for industrialization and urbanization, together with the relief and hydrography of the district led to the building of reservoirs and hydroelectric power stations in this and neighbouring areas. In 1947, the firm ENHER (*Empresa Nacional Hidroeléctrica de la Ribagorzana*) came to Alta Ribagorça, starting with the building of the Senet power station—completed in 1951—and finishing with the Moralets power station in 1988 (Sánchez Vilanova 1991). The building of these infrastructures had a major impact on the local community and speeded up the transformation of its economy: *a)* jobs were created, encouraging part of the native population to give up farming, and *b)* roads were built for the hydroelectric projects, which revolutionized communications in the area and fostered the crisis of the traditional economy by putting an end to the viability of activities that had continued due to the difficulties of goods transport (Herranz 2002),[17] *c)* some of the flat lands where cultivation was easiest were flooded, and large areas of the valleys leading off the Noguera Ribagorzana, which had hitherto been used for stock farming were reforested (Herranz 2002: 219–220), and *d)* large numbers of workers arrived, causing the rapid growth of Pont de Suert and Vilaller and leading to the setting up of services for this new population.[18]

By the end of the 1980s the hydroelectric projects were all complete, the operation of the hydroelectric power stations was automated and the mines at Malpàs and Vilaller were closed, causing Pont de Suert and Vilaller to lose part of their population and join in the crisis underway in the area. However, these same years also saw the Boí Valley beginning to recover due to the phenomenon of tourism, which has spread to the other municipalities since 2001. A series of events in the second half of the 20th century lie behind this demographic and economic recovery: *a)* the setting up of the Aigüestortes i Estany de Sant Maurici National Park in 1955 and of the Posets-Maladeta Natural Park in 1994, affecting the municipalities of Vall de Boí and Montanui respectively, *b)* the rediscovery and exploitation of Romanesque architectural heritage, in particular that in the Boí Valley, which was declared a world heritage site by UNESCO in the year 2000, and *c)* the opening of the Boí-Taüll ski station in 1986 and current plans to connect the Castanesa Valley to the Cerler ski station (Benasque).

## Stock farming in the Alta Ribagorça

The process of transformation described above has placed the primary sector in a secondary position in the local economy, with the features outlined below. Firstly, crop cultivation has become an ancillary activity to stock farming. The weather conditions and relief of the area are not

favourable to crops for human consumption or for mechanized farming. This, coupled with the need for food for livestock, the greater suitability of the land for growing hay and the scarcity of labour, have led to cereals being replaced by hay meadows in the larger fields and the abandonment of less accessible land where mechanization was more difficult. All this has made stock farming the main activity of the remaining farming operations.[19]

Secondly, stock farming has had to industrialize to cope with the scarcity of labour and a globalized market that demands low-priced products, with a food industry that exercises ever greater control over both the purchase of produce and the sale of feed and other necessary products. This process has had mixed effects on stock farming in the area. On the one hand, the number of fully active farms has fallen considerably, while the size of the remaining ones has grown. Many of the farms that existed have ceased operation due to the emigration of their owners, a lack of new generations to replace them or the abandonment of the business when faced with the impossibility of making the necessary investments.[20] In other cases, the farmers have opted to do non-agricultural work, scaling down the activity of their farms.[21] However, as the number of farms fell, the total head of livestock in the district remained steady and even increased in the case of cattle, with the number of animals per farm reaching hitherto unprecedented figures (see Table 6.4).

On the other hand, stock farming has been partly separated from the territory, with fewer farms feeding their livestock exclusively on pasture and their own hay. The dynamics of industrial stock farming call for animals to be fattened quickly, which means they need to eat prepared feed. Moreover, the area of usable pasture has fallen due to reforestation, the abandonment of fields, and the non-use of pastures that are harder to reach. However, the effect of this reduction is relative, as the remaining farms exploit the most suitable of the land they cover.

Finally, this process of intensification has also led farms to specialize in a single type of production—sheep for meat, beef cattle or dairy cattle—and semi-intensive farming of beef cattle has become the predominant activity (see Table 6.4).[22] Breeding workhorses, which was formerly one of the economic pillars of the larger farms, disappeared in the space of just a few years due to mechanization at the end of the 1950s.

The choices made by farmers have been influenced by factors related both to the farm itself—size, availability of land suitable for cultivation, and spending power of its owners—and to the general context of the market and official agricultural policy. Farms large enough and/or in the right place to have fields suitable for mechanized hay production and that were able to survive the crisis in horse rearing tended to specialize in cattle farming. On the other hand, those with less usable

**Table 6.4 Development of sheep and cattle farming (1982–2007).**[23]

| Municipality | Year | Cattle | | | Sheep | | |
|---|---|---|---|---|---|---|---|
| | | Farms | Head | per farm | Farms | Head | per farm |
| Bonansa | 1982 | – | 243 | – | – | 6,320 | – |
| | 1989 | – | 216 | – | – | 5,577 | – |
| | 1999 | – | 791 | – | – | 4,191 | – |
| | 2007 | – | no data | – | 4 | 2,340 | 585.0 |
| Montanui | 1982 | – | 1,455 | – | – | 11,790 | – |
| | 1989 | – | 1,434 | – | – | 16,333 | – |
| | 1999 | – | 3,310 | – | – | 19,149 | – |
| | 2007 | – | no data | – | 22 | 8,831 | 401.4 |
| EI Pont | 1982 | 45 | 1,077 | 23.9 | 25 | 7,356 | 294.2 |
| de Suert | 1989 | 37 | 1,799 | 48.6 | 18 | 11,132 | 618.4 |
| | 1999 | 26 | 2,001 | 77.0 | 9 | 10,995 | 1,221.7 |
| | 2007 | – | no data | – | 13 | 6,944 | 534.2 |
| La Vall de Boí | 1982 | 55 | 736 | 13.4 | 28 | 12,449 | 444.6 |
| | 1989 | 51 | 864 | 16.9 | 19 | 10,439 | 549.4 |
| | 1999 | 30 | 1,784 | 59.5 | 9 | 4,301 | 477.9 |
| | 2007 | – | no data | – | 9 | 8,831 | 981.2 |
| Vilaller | 1982 | 23 | 263 | 11.4 | 12 | 1,775 | 147.9 |
| | 1989 | 23 | 381 | 16.6 | 6 | 1,061 | 176.8 |
| | 1999 | 10 | 408 | 40.8 | 1 | 69 | 69.0 |
| | 2007 | – | no data | – | 1 | 500 | 500.0 |
| Catalan | | | | | | | |
| Alta | 1982 | 123 | 2,076 | 16.9 | 65 | 21,580 | 332.0 |
| Ribagorça | 1989 | 111 | 3,044 | 27.4 | 43 | 22,632 | 526.3 |
| | 1999 | 66 | 4,193 | 63.5 | 19† | 15,365 | 808.7† |
| | 2007 | – | 4,540 | – | 23 | 16,275 | 707.6 |
| **Total area** | 1982 | – | 3,774 | – | – | 39,690 | – |
| **studied** | 1989 | – | 4,694 | – | – | 44,542 | – |
| | 1999 | – | 8,294 | – | – | 38,705 | – |
| | 2007 | – | no data | – | 49 | 27,446 | 560.1 |

*Sources*: Drawn up by the authors. 1982, 1989 and 1999 agrarian censuses (INE, IDESCAT) and 2007 data from the Catalan Department of Agriculture offices in Pont de Suert and the local agrarian office in Castejón de Sos for sheep and the stock survey for cattle.
*Note*: (†) According to the stock farming survey by the Catalan Department of Agriculture, in 1999 there were 36 sheep farms in the Catalan Alta Ribagorça with a total of 22,723 sheep, an average of 631.2 head per farm. The total number of sheep in the area studied was 46,063.

land, because they were smaller or in localities where the land was less suitable for feed, opted more for sheep farming. Likewise, farms that were stronger in financial terms were able to specialize in cattle farming, which required large investments in facilities, machinery, and animals,

and sold their flocks of sheep, which were more work-intensive. On the contrary, farms with less financial resources specialized in sheep, as they were able to make their business more intensive with less capital investment, keeping up their way of working and increasing the size of the business gradually on the basis of the ewes in their own flocks.[24] Thus, while farmers who specialized in cattle farming built up the capital of their farms, those opting for sheep farming invested more labour, particularly family labour. As a result, while up until the mid-20th century the large flocks of sheep were the property of the richest stock farming families, today they are owned by medium-sized farms.

Market developments led sheep farming to shift its orientation from wool to meat. Wool, which had been the main product in the past, and more recently had covered the cost of winter grazing, has declined in value to the point where today its sale price does not even cover the cost of shearing.[25] Likewise, milk cattle had something of a role in the 1980s but then disappeared, to be replaced by beef cattle in the 1990s.[26] This change came about because there was no adequate return on higher economic costs of milk cattle due to the fall in the price of milk and the quota system that followed Spain's entry into the European Union. To this was added the difficulty in marketing the milk produced due to the crisis at the Copirineu co-operative in the 1980s and the non-existence of any alternative dairy operations.

## Ovine transhumance in the Alta Ribagorça

Natural features and property structure lie at the root of the transhumance found in the Alta Ribagorça. On the one hand, they create favourable conditions to feed large numbers of livestock in summer, especially in the municipalities of Montanui and Vall de Boí. On the other, they mean that the pastures and hay meadows are not sufficient to support the same number of animals in winter. Thus, in order to take full advantage of the area's resources, it is essential for the flocks to move to pastures in other areas in winter.

The form of transhumance practised is both lateral and altitudinal. Animals and shepherds move twice a year between the mountain pastures in the area and the lowlands of the Ebro Valley in Catalonia and Aragon. The journey up takes place in May or early June, and the animals remain in the mountains and pastures near the formers' villages until early July, when they go up to the mountains. During their stay on the high pastures they are joined by other smaller flocks that stay in the area in winter. However, some villages do not have enough grass for the whole summer, and their residents take their livestock to other pastures in the area or surrounding areas, such as the Val d'Aran. In October, after

staying near the villages for several weeks, the animals go down to the winter areas where they graze on wasteland, fallow ground, stubble and hay meadows until the following May, when the cycle repeats itself. The high pastures are collectively owned, either publicly or through groups of owners, and the farmers pay an amount per head for the livestock they take to graze there. The intermediate and winter areas are privately owned and are leased for a fixed amount for the whole property.

The districts of Segrià, Noguera, Urgell, Pla d'Urgell, and Garrigues in Catalonia and Llitera, Monegros, Somontano de Barbastro, Cinca Medio, and Bajo Cinca in Aragon make up the current area where the flocks from the Ribagorça are wintered.[27] Even though this is practically the same region as in the 20th century, changes in agriculture, in local laws on use of grass, and the low value currently given to manure make it increasingly difficult and expensive to secure pastures for the large flocks in the lowland areas.[28] To avoid these problems, some farmers bought land in the wintering areas at a time when this was relatively affordable, while others need to look for large properties that can handle the flock more easily, or else divide their flock and spread it over several areas. Some of these properties are owned by agricultural businesses that also own feed factories, so controlling a further link in the chain of livestock production.

The ovine transhumance to be found today in the Alta Ribagorça is closely linked to the demographic, social, economic, and political conditions that emerged from the process of transformation in Pyrenean society in the second half of the 20th century. Extensive sheep farming, and in particular transhumance, have features that make it easier for the farming operations to adapt to changes in the market, in agricultural policy, and in each farm's individual circumstances. The relatively low value of the animals and the fact that they reach reproductive age relatively quickly—at one year of age—makes it possible to adjust the size of the flock to circumstances relatively quickly. Likewise, the simplicity and relatively low cost of their facilities also help to make farms more flexible. Finally, the range of grasses and hay that sheep consume make it easier to change strategies for feeding the flock, whether it is transhumant or sedentary.

Despite the diversity that results from this flexibility, sheep farming operations can be divided into three broad types:

- Large transhumant operations, full-time occupation. These have 1,500 or more head of livestock and occupy two or three shepherds full-time. The seasonal movements are on foot, though newly born lambs and the ewes that bore them are transported by lorry. In some cases the downward journey is by lorry. The operation generally has

little cultivated land and few facilities in the village, as the animals are away for most of the year.
- Medium-sized transhumant operations—around 1,000 head of livestock—occupying one or two shepherds, preferably related, full-time. They decide on the mode of transport (on foot or by lorry) every year, depending on the cost of transport by lorry and the sale price of lambs, with movement on foot being a strategy to reduce costs. Like the above type, these operations have little land and few facilities in the village.
- Smaller operations—less than 500 sheep—that generally stay in the district all year round, going up to mountain pastures in summer. These operations own or rent land, machinery for farming hay to feed the animals in winter and modern facilities for stabling livestock in winter. These flocks normally occupy a single shepherd—the owner or an employee—but are not the only livelihood of their owners, who may have other businesses or work seasonally as employees.

As pointed out above, the transhumance currently practised by the farmers of the Alta Ribagorça is linked to today's social, economic, and political context. In the face of changes in general and the closure of many sheep farming operations, the farmers who have stayed in business have opted to increase the size of their flocks to numbers that can only be sustained by means of transhumance (see Table 6.5). However, in addition to this, the new conditions that have emerged have created a scenario in which transhumance is a viable option from a strictly financial point of view as it allows livestock to be kept at a lower cost. All this has contributed to the persistence of the practice of transhumance.

The increase in the size of flocks and specialization in sheep farming is related to the need to cut production costs in an increasingly globalized market. On the one hand, it has been necessary to reduce labour costs that have risen due to emigration, the ageing of the population, and the new employment opportunities appearing in the area. The ratio of sheep per shepherd has therefore gone up—by increasing the number of head of livestock and reducing the workforce—and paid labour has been replaced by family members.[29] Thus, owners have had to become full-time shepherds and give up other activities, building up the size of their flock to make it into their main source of income. However, this has led to a worsening in shepherds' working and living conditions, whether they are owners or employees, which has added a new cost to production.[30] In recent years, immigration has provided employees at lower wages.[31]

On the other hand, larger flocks also make it possible to cut the cost per head of facilities and machinery on the farm. Likewise, transhumance

**Table 6.5 Transhumant ovine livestock (spring 2007).**

| | Trashumant | | | Sedentary | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Farms | Head | Head/ farm | Farms | Head | Head/ farm | Farms | Head | Head/ Farm |
| Bonansa | 1 | 900 | 900.0 | 3 | 1,440 | 480.0 | 4 | 2,340 | 585.0 |
| Monta-nui | 6 | 6,080 | 1,013.3 | 16 | 2,560 | 160.0 | 22 | 8,640 | 392.7 |
| EI Pont de Suert | 3 | 2,589 | 863.0 | 10 | 4,351 | 435.1 | 13 | 6,940 | 533.8 |
| La Vall de Boí | 7 | 8,281 | 1,183.0 | 2 | 650 | 325.0 | 9 | 8,931 | 992.3 |
| Vilaller | 1 | 500 | 500.0 | 0 | 0 | – | 1 | 500 | 500.0 |
| **Total** | 18 | 18,350 | 1,019.4 | 31 | 9,001 | 290.4 | 49 | 27,351 | 558.2 |

*Source*: drawn up by the authors on the basis of data from the Catalan Department of Agriculture office in Pont de Suert and the local agrarian office in Castejón de Sos.

has been boosted by the fact that it can work with smaller investments in facilities and machinery, as there is no need to grow hay and the facilities are part of the summer and winter pastures where the livestock spends most of the year. However, it has a negative impact on the conditions under which the flock is kept—with stables and pens that are sometimes barely adequate—and, above all, on living conditions for the shepherds, both in the wintering areas and in the mountains.

However, the main cost of sheep farming is food. The cost of the pasture and hay consumed by a reproductive sheep in a year is practically the same as the animal's market value. Moreover, feeding costs make up well over half of the total production costs—including labour—of a farming operation. Keeping these costs down is therefore essential to the profitability of the operations and mountain pastures help with this: feeding a sheep in the mountains costs between half and two thirds as much as keeping it stabled. Thus, the area's mountain pastures make it possible to keep larger flocks and therefore favour transhumance.

As well as encouraging transhumance, the increase in the size of flocks has also contributed to its survival. In fact, in recent years the number of flocks travelling the drove roads has risen from three to seven. Movement on foot, as well as avoiding the costs of transport by lorry,[32] represents a saving on feeding costs, as there are freely accessible pastures by the drove roads for flocks travelling along them. Moreover, the number of casualties during the journey on foot is lower and the animals reach their destination in better condition, which has a positive impact on their reproduction, illness, and mortality rates.

The development of sheep farming and transhumance in the Alta Ribagorça is also closely linked to policies pursued by different levels of government, from municipalities up to the European Union. Thus, local development plans determine the availability of fields for hay and farming facilities. In a region with few large flat areas suitable for agriculture, the expansion of tourism and the building of holiday residences make it difficult for farmers to increase the extent of their fields or build new pens, as in addition to the limits imposed by regulations they cannot compete with the prices paid for land by property developers. This comes at a time when regulations on farming facilities and tourist development are forcing farmers to give up their former facilities in the villages.

However, the policies that have the greatest impact on transhumant sheep farming are the CAP—the European Union's Common Agricultural Policy—and animal health policies, in terms of both general directives and their application by the Spanish, Aragonese, and Catalan authorities. On the one hand, the CAP subsidies for sheep farming, together with other assistance and supplements, are essential to maintaining livestock farming in the area.[33] The subsidizing of production that operated up until the reform of the CAP in 2003 was an incentive to large flocks, as a fixed amount was paid per head of livestock. This policy, together with a relatively favourable market situation, meant that revenue earned in the 1990s was proportional to the number of head of livestock and the activity was profitable.

However, the situation has begun to change over the last five years, with the start of a trend towards reducing the number of animals in a flock, and combining sheep farming work with other jobs and businesses, which in turn is leading to an abandonment of transhumance. This situation is connected on the one hand with the reform of the CAP in 2003, which decoupled the payment of subsidies from production and linked it to the farming operation itself and to compliance with requirements in terms of public health, animal health and welfare, and the maintenance of the environment and of agricultural land. This decoupling means that from 2006 to 2013 farmers will continue to receive assistance depending on the sheep quotas they held in the period 2000–2002, but they can reduce the number of animals in their flock by up to half.[34] This change has created discontent among farmers, who see it as the beginning of the end of subsidies and are not happy with the role of 'gardeners' assigned to them by the new CAP, making them more dependent on environmental policies and less on their productive activity.

On the other hand, this new situation is a result of increased production costs—of food in particular—and a fall in the sale price of lambs and wool, which have caused a fall in farmers' income,[35] so

increasing their dependence on subsidies. The value of this assistance currently represents over 30% of the income of a farming operation, and without them the business runs at a loss. For all these reasons, farmers are reducing their livestock in order to cut production costs, as they will carry on receiving more or less the same subsidies.

Other policies that have a major impact on sheep farming and on transhumance are those in the areas of animal health and food safety. These policies and regulations are applied very rigorously and permission to move the animals depends on compliance with them, as are measures obliging the animals to be slaughtered in the event of outbreaks of diseases like brucellosis or scrapie.[36] Moreover, in this case, the existence of different authorities and legislations in Catalonia and Aragon has further complicated the movement of flocks, as both the Alta Ribagorça and the wintering areas straddle these two autonomous regions. For many farmers, such strict application of these measures is both unnecessary and ineffective, and aims in fact to reduce the sheep population and eradicate transhumance.

Finally, environmental policies also affect sheep farming directly, both through their repercussions on the management of mountain pastures and through nature protection measures. The new CAP directives, which stress environmental aspects, are added to the fact that most of the mountain pastures lie in protected areas.[37] This change in policies and the crisis in the sheep meat market seem to be driving a reorientation of sheep farming from meat production towards providing environmental services.

## Conclusions

This piece has set out to familiarize the reader with the current situation of transhumance in the Alta Ribagorça area. Its continuity is not the result of resistance to change or nostalgia on the part of shepherds. If thousands of sheep from the Alta Ribagorça make the journey to the lowlands today it is because the conditions exist to make transhumance viable. Analysis of the current context and of the changes undergone by the area in the course of the 20th century offers clues to understanding its logic as a strategy used by farmers who have been unable to invest capital in their operations to adapt to changes, which has also contributed to its—in part—marginal nature.

However, this strategy, which worked up to the first years of this century and was reinforced by the EU's agricultural policies today finds itself in crisis due to changes in these same policies, to the dominance of the tourist industry in the area, and to the fall in revenue in the sheep farming sector, which has increased farmers' dependence on public subsidies.

Moreover, while public and private bodies stress the importance of extensive farming to keep up the landscape and ecological diversity, health policy is restricting the movement of flocks more and more. Also, the tourist industry, which exploits stock farming and transhumance as cultural and historical heritage and makes the idealized memory of it into a consumer product, at the same time rejects it in practice as a source of public health problems and a brake on its development.

Nevertheless, the continuity of transhumance is also linked to social and cultural aspects in connection with the tough working and living conditions of shepherds. Employment possibilities in the same area arising from tourism make the personal cost of working in sheep farming and transhumance ever higher, so contributing to its abandonment.

## Notes

1. The area studied, the Alta Ribagorça, straddles the border between Catalonia and Aragon and includes all the municipalities of the Catalan district (*comarca*) of Alta Ribagorça (Pont de Suert, Vall de Boí, and Vilaller), which will be referred to here as the Catalan Alta Ribagorça, and the municipalities of Bonansa and Montanui in the Aragonese district of Ribagorza. These municipalities make up a geographical, social, economic, cultural, and service unit centred on the locality of Pont de Suert, the capital of the Catalan district of Alta Ribagorça.
2. The research is financed by the Department of Culture of the autonomous government of Catalonia within the framework of the Catalan Inventory of Ethnological Heritage (*Inventari del Patrimoni Etnològic de Catalunya*, IPEC) and follows on from the work of E. Nadal (2005). In addition to the authors of this chapter, E. Domingo and A. Aghenitei are taking part in the research. We would like to thank the farmers we interviewed for their co-operation, especially M. Plaza of Ca de Llúcia in Durro, J. M. and R. Cortinat of Ca de Sarrado in Castanesa and A. Deu Durano of Ca de Lloveto in Cardet for allowing us to accompany them on their journeys.
3. Study of transhumance in Spain has focused largely on the major routes running from north to south on the Iberian peninsula, in particular in mediaeval times and up to the early 19th century, when they were controlled by the *Mesta* and the local farmers' guilds known as *Casas de Ganaderos* (Castán 2002, 2004; Pérez Romero 2006). However, while work on pastoral farming and transhumance in the Pyrenees is less plentiful, studies began to be produced in the decades between 1930 and 1950 by Violant (1948, 1985[1949], 2001) and Vilà Valentí (1950). Outstanding among more recent texts on the Pyrenees are those by Daumas (1961, 1976), Pallaruelo (1988, 1993), Roigé et al. (1995) and Ros (2001a, 2001b, 2004).
4. According to some authors neolithic grazing and transhumance can be explained through their modern equivalents (see Vegas 1991), the material and conceptual factors observed today being primitive survivals (Pérez Berdusán 2004: 96) with 'an untouched antiquity of millennia' (Miralles 2005: 83).
5. Ros (2004) shows the effect of differences in prices between Spain, Andorra, and France upon the transhumant strategies of Andorran farmers in the 20th century.

Likewise, Lefebvre (1928: 55–56) explained the increase in winter transhumance from the Navarrese valleys of Baztan and Aezkoa to the French Basque Country and Gascony after the First World War in terms of the possibility of selling the milk from the sheep to the Roquefort company, and the lambs at better prices than in Navarre.

6. According to Abellán and Olivera (1979: 389), the discourse on the decline of transhumance was already appearing in 18th century texts. However, the reduction in transhumant livestock in Spain between the late 19th century and the 1970s was not as drastic as it seemed, being about 12% (1979: 397). Moreover, while the 1970s and 1980s saw a sharp fall in transhumance in the Pyrenees, more recent figures point to a certain increase in the 1990s (Roigé et ál. 1995; Ros and Abella 1999).
7. At altitudes above 1,600 metres the vegetation is boreo-Alpine, with fir and mountain pine woods, and Alpine meadows which become natural pasture at altitudes above 2,300 metres. Below 1,600 metres the vegetation is Euro-Siberian with fields used for fodder, hay meadows and oak woods with some boxwood and fringing woods.
8. These figures must be treated with caution since they are inflated by the registration of owners of second homes and people from the area who live elsewhere for part of the year, in order to gain benefits as residents. For example, in the municipality of Vall de Boí, the ski station reduces the price of season tickets for owners of properties who have been registered there for over five years. For this and other reasons, in Taüll the number of permanent residents is around half that of people registered as living there (Nadal 2005).
9. The average density in the district is 7.0 inhabitants/km$^2$, but theree are considerable differences between municipalities: 1.8 inhabitants/km$^2$ in Montanui, 2.7 inhabitants/km$^2$ in Bonansa, 4.9 inhabitants/km$^2$ in Vall de Boí, 11.4 inhabitants/km$^2$ in Vilaller and 15.6 inhabitants/km$^2$ in Pont de Suert.
10. In 1991, the primary sector accounted for 15.8% of the working population aged over 16 in the area studied, building accounted for 17.9%, industry 18.5%, and the service sector 47.8%. By 2001, the service sector had increased its proportion to 63.3%, at the expense of industry (9.9%), agriculture (10.7%) and building (16.2%), (population censuses of 1991 and 2001 INE). In 2005, the primary sector's contribution to the gross product of the district was 1.8%, that of services 44.53%, building 16.22%, and industry 37.43% (Oliver 2006: 41).
11. Concerning the household as an institution based on the stem family and indivisible inheritance, and the village and communal organization in other areas of the Pyrenees, see Comas d'Argemir and Pujadas (1985) and Pujadas and Comas d'Argemir (1994) on Aragon, and Roigé, Beltran, and Estrada (1993) and Beltran (1993, 1994) on the Val d'Aran.
12. Outstanding here is the decline of the municipality of Bonansa, which by 2001 had just 15% of its population in 1910. However, the most extreme case is that of the former municipality of Viu de Llevata, today part of Pont de Suert, whose villages had a total of 618 inhabitants in 1920 but by 1991 had only 23 people (3.7%).
13. The coal mines of Malpàs—today part of the municipality of Pont de Suert—and the lead and zinc mines of Vilaller helped to keep inhabitants in these localities in the 1970s and 1980s.

14. Over-65s represented 20.3% of the population in 2005, and there was a ageing ratio of 188 over-65s to every 100 under-15s. These figures represented a certain recovery in comparison with the 2001 census, when there were 22.4% of over-65s and an ageing ratio of 194.8% (figures by the authors based on the census and the municipal register of inhabitants, INE, IDESCAT, IAEST).
15. In 2001, 20.3% of men and 6.1% of women aged over 65 were unmarried. However, these figures were much higher in the municipalities where the demographic impact of the building of hydroelectric projects had been smaller: in Montanui 36% of men aged over 65 were unmarried, as were 29.7% in the Vall de Boí, and 27.3% in Bonansa (2001 census, INE).
16. 19 settlements which were inhabited at the start of the 20th century were uninhabited or abandoned by the early 1990s.
17. ENHER built the roads linking Pont de Suert and Sopeira (N-230) and Pont de Suert and Boí (L-500), which were opened to traffic in 1952 and 1953 respectively (Castillo and Mateu 1981: 76; Herranz 2002: 219). The only road existing up to then dated from 1933 and went to Pobla de Segur. Until the local network of roads and tracks was extended in the decades between 1950 and 1970, most of the villages could only be reached by cart tracks.
18. ENHER's works division had over 8,000 employees in the mid-1950s (Sánchez Vilanova 1991, 1998). Bearing in mind that the district had a population of 5,300 inhabitants in 1940 according to the census, the impact the arrival of these workers must have had is easy to imagine, especially in some localities where the population was multiplied several times, like Pont de Suert, which grew from 467 inhabitants in 1940 to 3,449 in 1960.
19. In the Catalan district of Alta Ribagorça, the proportion of farms with livestock rose from 61.7% of the total in the agrarian census of 1982 to 76.3% in the 1999 census.
20. The area studied declined from 388 farms to 227 between the agrarian censuses of 1989 and 1999. In the Catalan district of Alta Ribagorça it fell from 256 to 118 farms between 1982 and 1999. No data was available for the period from 1950 to 1980.
21. While in the 1989 agrarian census part-time farmers made up 8% of the owners of farms, by the time of the 1999 census this figure had risen to 29%.
22. Under this system, livestock exploited the mountain pastures in summer and in winter stayed indoors, living largely on stored hay and feed.
23. The figures available for the decades from 1950 to 1970 do not make it possible to break down the number of head in the area studied or for the Catalan district of Alta Ribagorça. According to livestock censuses, Lleida province as a whole—of which the Catalan Alta Ribagorça is a part—rose from 205,000 head of sheep and 28,000 of cattle in 1950 to over 386,000 and 88,000 respectively in 1980, and Huesca province—including the Aragonese part of the area studied—rose from 401,000 to 489,000 sheep and from 20,000 to 60,000 cattle between 1950 and 1980. The totals for these provinces in 2006 were 328,195 sheep and 282,918 cattle in Lleida and 884,143 sheep and 229,059 cattle in Huesca.
24. In the past the large flocks belonged to the big farming families, but today the largest flocks are owned by medium-sized farms. Many of the largest flocks today were built up by their current owners or their parents in the 1960s and 1970s, and belong to families which had hitherto owned just a few sheep which they placed with other flocks to go to the low ground or up to the mountains.

25. In May 2004 a farm with about 2,300 sheep paid 2,280 euros for shearing and received 1,050 euros for the sale of the wool. Another farm with some 1,500 sheep paid about 2,000 euros to shear the sheep in May 2007, while the value of the wool proved to be just 700 euros.
26. Milk cattle represented 10.1% of the bovine livestock in the Catalan district of Alta Ribagorça in the agrarian census of 1982, 3.3% in the 1989 census and had disappeared completely by the 1999 census. Nor did they appear in subsequent livestock surveys. In the whole of the area studied, milk cows accounted for 4.1% of the bovine livestock in the 1989 census, falling to 0.9% in the 1999 census.
27. One of the farms moves its flock to the Catalan district of La Selva, in Girona province, though this is due to previous emigration for employment reasons by some members of the domestic unit.
28. The spread of irrigated land, the disappearance of waste and fallow land, and the planting of fruit trees have fragmented the pastures in the wintering areas, making it harder to handle the flocks. To this must be added the fact that the sheep farmers must negotiate access to fields individually with each landowner, while up to the 1960s it was the local councils which auctioned the right to graze all the grass in the municipality, and the flocks could use all land which had not been sown, whether publicly or privately owned.
29. In the past, the lack of other job opportunities pushed the younger sons of the large stock farming families (who did not inherit the farm) to work in transhumance with the family flock or find jobs as shepherds for large farming operations for part or all of their lives. The shepherds of the big transhumant flocks were never the owners, and owners of smaller flocks added their animals to larger flocks and stayed at home. Emigration meant that the possibility of hiring shepherds disappeared and the owners themselves and their eldest sons had to work as shepherds and travel with their flocks to the winter pastures outside the area.
30. Throughout the fieldwork, repeated comments were heard about tough working and living conditions, especially for transhumant shepherds. These were considered the worst part of the job: long working hours without time off or holidays, long stays away from the family home, hard work at the mercy of the weather, poor conditions in huts and accommodation during transhumance and so on.
31. While an immigrant shepherd might earn around 700–800 euros a month in late 2006, plus food and lodging, the wages demanded by native shepherds were twice that plus food, lodging, and social security cover.
32. Making the return journey by lorry for a flock of about 2,000 sheep from winter pastures to the Alta Ribagorça can cost some 6,000 euros a year.
33. The subsidies are 21 euros per head, plus 7 euros per head as a supplement for a disadvantaged area. In addition to these subsidies there are other forms of assistance for farming operations in mountain areas, for organic livestock farming, for fostering pastures, as well as compensation for the possible presence of bears, aid for improving facilities, and so on.
34. Out of the quotas possessed by farmers in the period 2000–2002, 50% of the subsidies continue to be linked to the quotas held, while the other 50% have been decoupled and are paid regardless of the number of animals, providing the flock does not fall below 50% of the quota. that is, a farmer with a quota for 1,000 in the period 2000–2002 will continue to be paid for 1,000 but can reduce their livestock to 500 animals.

35. According to various farmers, the annual cost of a reproductive ewe was around 50 euros in 2006, without counting the pay of the shepherd who owned it. This was almost the same as the amount gained from the sale of a lamb. The average productivity of an ewe is 1.2 lambs per year.
36. Between 2000 and 2002, 16 farms in the Castanesa Valley had to slaughter all their animals—some 7,000 head—due to an outbreak of brucellosis. All these farms were transhumant operations which did not resume this activity. The impact of this event is essential to understanding the sharp fall in the number of animals in the municipality of Montanui (see Table 6.4).
37. 45.7% of the territory of the Catalan district of Alta Ribagorça forms part of a catalogued Area of Natural Interest (IDESCAT 2006: 61). Similarly, much of the municipality of Montanui is included in the Posets-Maladeta Natural Park.

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*Chapter 7*

# Pastoralism and Heritage in the Central Pyrenees: Symbolic Values and Social Conflicts

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Pastoralism, an activity long considered to be archaic, today appears to embody a number of virtues. This shift is largely a result of the development of agro-environmental interests, of models promoting sustainable development protecting biodiversity, and perhaps most significant, contemporary valorizations of 'getting back to nature.' As a consequence, pastoralism is becoming an important management tool finely tuned to adapting to the vicissitudes of nature. Pastoralism can thus be trusted with the capacity to maintain and manage areas of natural interest, and pastoralism itself has become part and parcel of a heritage to be valued and sustained.

This resurgence is not completely harmonious. It relies heavily on *symbolic* values associated with contemporary notions of pastoralisms (the plural form is deliberately adopted here), and these give rise to ambiguous social relationships and sometimes to social conflicts over the concrete, applied definitions, and practices of heritage. This chapter shows how one discourse about heritage may 'hide' another one.

Based on fieldwork undertaken principally in the French department of the Ariège in the central Pyrenees (Midi–Pyrenees region), this chapter wishes to address this question by means of a number of different approaches. It begins with an ethnographic study of the establishment and the development of a transhumance festival (*Fête de la Transhumance*) in the west of the department that endeavoured to privilege the shepherd (*le berger*) in order to promote local pastoralism and tourism. In so doing I analyze the social roles (Goffman 1973) involved in this type of festival. Analysis of the establishment and development of this festival will then serve as a context in which to assess the variety of perspectives pertaining to contemporary redefinitions of pastoral practices.

The celebration of the transhumance had considerable support and backing from a departmental organization that sought to support pastoralism in the Ariège since the end of the 1980s. This institution also

endeavoured to promote the role of pastoralism in the conservation of landscape and of cultural heritage. In this way, the notion of heritage was used as a tool for rural development. But naturalist ecological policies also constituted a force field in social space, as shall be discussed when considering campaigns for reintroducing bears to the Pyrenean mountains (particularly in 2006). Here again, one discourse about heritage was 'hiding' another one since opponents to the bear reintroduction campaign denounced it as an *ensauvagement du massif* (literally, a 'wildification of the massif'), pleading instead the need for a 'normal biodiversity' consisting of sheep and cows.

What arises from these different viewpoints permits us to explore the political dimension when adopting a legitimate definition of value of pastoralism as heritage. The issue of social uses of heritage constitutes a relevant starting point from which to analyze certain aspects of contemporary redefinitions of pastoralism, particularly the perspective of ecological and environmental politics.[1]

## Heritage, tourism and the shepherd

In the spring of the year 2000, in the western Ariège, the first festival celebrating transhumance took place. This drew attention to local cultural, tourist and pastoral practices as well as economic development in the area.[2] This celebration of pastoralism was created and organized by 'tradition entrepreneurs' (*entrepreneurs de tradition*) who had previously contributed to the creation and development of a local 'olden times' weekend festival some 10 years previously.

The idea behind the festival was to promote pastoralism in this part of Ariège, which is struck with heavy depopulation and facing economic difficulties.[3] For the first president of the association organizing this festival, and a former president of the local tourist office, this celebration of pastoralism intended to attract the urban public to the delights of nature and pastoral authenticity. It then became possible to support development tourism—an activity often perceived to be economic means of revitalizing 'fragile areas with considerable development handicaps'—according to the official terminology *zones fragiles à forts handicaps de développement*.

In order to establish contact with those involved in the transhumance who might wish to participate in such an event, the association turned to the departmental organization for the promotion of pastoralism—the Pastoral Association—which expressed its interest in the project, gave its support and provided the names of farmers. Initial meetings with these farmers resulted in some reluctance to participate in such a festival, the perception being that their normal activities were being staged

for tourists. As one breeder put it: 'My cows aren't cheerleaders' (*Mes vaches c'est pas des majorettes*).

Such pastoral festivals were already taking place in the South of France in the 1990s. The most renowned of which were those of Saint-Rémy de Provence and Die, in the Drome, or the festival in the Aubrac (department of the Aveyron), which was already attracting crowds exceeding over 25,000 people (see, for details, Labouesse 1996 and Garnier and Labouesse 2000). These were precisely the kinds of festivals that the local farmers found objectionable, being of the opinion that they were going to be no more than mere folkloric products 'made for tourists!' (*pour les touristes quoi!*) preferring instead not to change anything to their habitual practices. The organizers on their part endeavoured to avoid any artificiality in the presentation of a 'true transhumance' (*des vraies transhumances*). As the principal festival organizer suggested:

> . . . this festival is not folklore (. . .) we make sure that it will benefit the profession of shepherd by means of communication and valorization. It is like a business opened to the general public, but in this case the idea is to reveal this mountain profession by means of a festival.[4]

Thanks to the efforts of a farmer/shepherd and a former geography teacher (a mountain dweller of some 20 years) contacts were made with the local farmers thereby enabling the first festival of the transhumance to take place. Despite the rain, this festival (which took place in the year 2000) united some 3,000 animals and 1,500 participants in the Salat Valley, with a concluding banquet of 200–300 guests. The afternoon offered various activities: information stands, sheepdog trials and the arrival of the livestock itself. The following day, participants could walk with the herd of their choice to the high mountain pastures.

In this way the pastoralists were able to display their professional prowess. However, this festival also allows to analyze some aspects of the conciliation—sometimes problematic—between a contemporary rehabilitation of pastoralism and the practices and perceptions of the local farmers.

While one of the main festival organizers said that, 'transhumance has always been a celebration' (*la transhumance ça a toujours été une fête*), a local farmer considered that 'transhumance is not really anything, it's just bringing the flocks to the mountain' (*la transhumance c'est rien,c'est juste amener les bêtes à la montagne*). This activity nevertheless constitutes one in a number of important activities in the stock-rearing calendar,[5] and even if 'it has always been a celebration' (*ça a toujours été une fête*), it did not always fit with contemporary redefinitions. By sending the flock to the high mountain pastures, the farmer is also parading his sheep or cows under the attentive gaze of connoisseurs. The aim,

therefore, is, if possible, 'to show off a beautiful flock' (*montrer une belle troupe*) at spring's end. Transhumance therefore functions as a means of displaying prestige and reputation (be it individual or familial) for a farmer.[6] The freshly shaven sheep display their *tuhet* (a wool pompon at the base of the neck), the rams have been *bastés* (a specific type of shaving for Tarasconnian rams) and adorned with the *truc* (a large bell with a deep sound) has been placed around the necks of sheep deliberately chosen for their 'leadership' qualities: while the animals are not perceived as 'cheerleaders', the occasion is not unlike a parade. 'We're supposed to display something beautiful, not show limping sheep. It's like a competition, we pass in front of people and they look at our animals to see if they're beautiful or just skinny.'[7]

At another level, the transhumance requires even greater scrutiny and it cannot really be said to be a leisurely walk in the mountains. The farmer is entrusting his main capital to the paths where problems may be encountered at any time: animals can get lost, injured or killed, and so on. If there is any celebrating to be done then this takes place at the journey's end, namely once the mountain cabin has been reached—a very masculine locale where feasting on freshly delivered food takes place.

Despite such concerns and the differences as to the manner in which transhumance is perceived, this first festival was a great success. This resulted in the establishment of a centralized organizational body, as well as three local associations for organizing festivals in three different locations in the Ariège. The proliferation of such organizational bodies would require a sociological and ethnographic analysis of each (their president, treasurer or secretary together with the principal farmers) in order to comprehend which of the specific aspects of this transhumance festival was to be given particular emphasis. On the one hand there was the desire to create a tourist package appealing to travellers and/or the contemporary desires of urban dwellers: short breaks in 'exotic' destinations with an emphasis on nature and returning to one's roots. On the other hand there was the need to valorize the profession of breeding and pastoralism, an activity about which little was known and which was frequently tainted with stereotypes. And in the end, the festivals became opportunities to market livestock products with free tastings.

On the ambivalence between professional practices and bucolic stroll, between folklore and heritage, the festival functions sometimes like a role-playing game and allows to analyze the construction of an emblematic pastoralism.

The atmosphere of the 'local and traditional' at the festivals (with the presence of folk groups and the mandatory sale of berets and so forth) assured a particular kind of representation. A tourist from Toulouse I met who had come to watch the transhumance said to his son: 'Look

at the shepherds, they're dressed like in the old times' (*Regarde les bergers, ils sont habillés comme avant*). I knew the group of shepherds he was referring to: some farmers from the valley who were certainly not dressed like old days but just wearing black trousers, a shirt and a beret. . . . Later on, I heard one farmer say to a friend: 'Hey! Look at how you're dressed, are you going to a wedding or what? You look like a tourist!' (*Hé! Regarde comme tu es habillé, tu vas à la noce ou quoi? On dirait un touriste!*).

We can see in these two comments two different categorizations of 'typicality'.[8] In the first instance because the tourist was aware of the staged identity and the signs displayed (especially the costumes), he became confused and associated the wrong clothing to the wrong shepherd. Never would he have thought that the shepherd *still* dressed like that *in the old times*. He could however consider it perfectly possible to see 'a shepherd dressed like in the old days'—that is, a human representation of a symbolic shepherd—in such a set of circumstances. In the second instance it is because the 'normal' transhumance had become somewhat 'staged' that we can say that the farmer who was not dressed like the 'locals' looked like a tourist.

Of course, festivals, by their very existence, may be said to send a message to the outside world: the farmers at the celebration can express their opinions. In the main, however, exchanges are limited and not much information is divulged and when they do, they tend to be focused on the relationship with the flock during the transhumance. Even so, it was the festive atmosphere that dominated to the exclusion of much commercial promotion of agricultural products.

The only commercialization that took place was to do with tourism. One of the main organizers thought of marketing a product associated with the festival and proposed it to a number of travel agencies. With the promotion of short breaks and pastoral authenticity, such marketing ideas gelled with current notions. A European Union grant financed the project, the idea being to develop non-peak season events, but the project has not yet really taken off. I have noted some reservations from a great number of the farmers as to this tourist orientation given the fact that the transhumance, in their opinion, is above all an occasion to meet one another and to promote the profession and, why not, agricultural products as well. For others in the central office, the transhumance was a 'perfect product about Nature': 'We have a natural Euro-Disney here, we have to exploit it.'[9]

This discourse only met with mild consensus and as I have shown it remained a central concern for the farmers. 'Farmers' must necessarily be referred to in the plural as some (a minority) were already embracing a more tourist or 'para-tourist' approach. But many of those participating

were 'locals', born 'with their animals' (*derrière les bêtes*), 'typical' farmers more or less of the same generation. Even if they welcomed tourism *per se*, they were not pro-tourism completely—with all the considerable marketing of events such an approach might entail.

Organization of the events also regenerated social interaction with friends helping one another to organize (as well as participate in) one/some of the festivities. Even for 'key' moments in those festivals that attracted the most people, I would say that the number of locals equalled that of the 'semi-locals' (temporary or secondary residents) and 'tourists' (on vacation/holiday in the region or here especially for the event).

However, as I suggested, in general the festival reflects the kind of perceptions that 'locals' and 'tourists' have of one another. On the tourists' side that tend to invest the situation with too much significance and meaning—such as the farmer and his wife becoming the archetypal 'shepherds'—while on the other side there are farmers who have to start to explain that 'in a flock of sheep, there is no goat!' (*dans un troupeau de brebis y'a pas de bouc*). Experience of such 'real transhumances' and the world of the shepherd permit some form of renaissance of the authentic, during a week-end when the 'locals' permitted a convivial glimpse into their universe. Farmers do not harbour any illusions, however, since each one knows where his place is when the time comes. This 'role distance' (Goffman 2002) allows them to participate in the transhumance in two ways: one, of providing a warm and sincere welcome to the tourists and the other, the consciousness of the constraints of their practices.

From this perspective, therefore, we can appreciate how, in this 'construction' of a heritage pastoralism, farmers often remain in the representation of themselves as perceived by others, thus revealing the ambiguous colour of this festive promotion of pastoralism. One may note, next, that in 2005, under the influence of the farmers and of the Departmental Pastoral Association, the principal organizing body of the transhumance would oppose the bear reintroduction programme undertaken in this period.[10]

## Pastoralism, heritage and naturalist ecology

Support given to this pastoral celebration by the Departmental Pastoral Association permitted more generally an understanding of political (or at least institutional) orientations accorded to mountain pastoralism.

The Pastoral Association, created in 1988, began first to organize professionals (with the creation of collective real estate management structure) and to propose technical advices for managing flocks. However, the activities of the Association quickly outgrew its initial role as it turned out that 'the management of the pastoral activity could not be separated

from a reflection as to its modalities'[11] since 'the pastoral movement must integrate other aims, social and cultural, deemed fundamental at this stage.'[12]

Since 1989, this pastoral service sought to obtain the application of one of the first European agro-environmental programme known as Article 19. The orientations then focused on maintaining a living rural and mountain environment, as the farmers were leaving in great numbers with considerable consequences for the mountain environment (forest growth and abandonment of some high mountain pastures). This approach also brought greater consideration of pastoralism relating to the general rural space transformation process. As a consequence, land management and maintenance led to 'a new development model', this being environmental management and tourist logistics.[13]

This orientation did not meet with general agreement in a profession where some 'classical' farmers from the Ariège agricultural world remained reluctant as to this redefinition of their role and place. However, the Pastoral Association had the legitimacy of beneficial actions favouring pastoralism (such as estate and equipment management) as well as the general support of 'officials' (specially the Conseil Général de l'Ariège—the departmental council).

From 1993, beginning with a more holistic approach to the question of land management that then lead to more environmental concerns, the Pastoral Association insisted on the value of collective identity associated with the landscape, on the necessity for the locals to regain this identity, as well as the benefits that it could bring in terms of agricultural development and farming revenues.[14] In this way, questions of agro-pastoralism corresponded to 'an approach that the country, shaped by the farmers, corresponds to the expectations of travellers and tourists' (Barrué-Pastor and Fournié 1995: 111). The definition of a test zone (the Tabe horn massif) for the implementation of the LIFE European programme[15] was part of this process. Yet the pastoral services kept insisting that these orientations did not enter the guidelines of an 'appropriation' of the mountains by tourists. On the contrary, it was a development project permitting the local population to live and work in their territory.

Assured in its capacity to act in the domains of agro-environment, the Pastoral Association took responsibility in 1995 of applying 'local measures.'[16] A 'land management programme' ('Programme d'Aménagement et de Gestion de l'Espace') defined in 1994 was reinforced during 1995–96 under the title of 'Regions to hand down, a heritage to keep alive, an identity to protect.'[17] Such perspectives aimed at launching 'new ideas about the notion of heritage', and 'the reappropriation and valorization of a common heritage will permit new perspectives on regional development policies' leading to an 'edification of a

sustainable social organization focused on values that are still present in rural society and originating from rural society and the agricultural "civilization" (. . .) with, at the centre of this system of values, a precious collective heritage, Mother Earth, the only universal legacy.'[18]

Faced with the evolution of agricultural policies in the 1990s and their redefinition in terms of rural development in response to environmental concerns, the above-mentioned 'mission statements' were confirmed and refined. This fine tuning resulted in an increased interest in the notion of heritage. Beginning in the 1990s with perceptions of notions of landscape, of cultural identity and, more generally still, a revitalization of local life, the policies of the Pastoral Association then entered a phase of 'naturalist ecology' (according to its director's words), recruiting in 1999 a mission consultant for the development of the heritage programme.

In this way, the aim was to make heritage an 'entry' to the activities of the organization, with the idea of using heritage as a tool for 'development'. For example, a number of programmes were launched for the valorization of dry stone terracing in some area or for the restoration of barns. According to the consultants engaged in these projects:

> Therefore, whenever they concern our heritage, built, cultural, natural or landscape-oriented, actions carried out by the Pastoral Association in Ariège around those events will not only lead to a better recognition of pastoral activity as a management tool, but more generally, progress towards a new definition of the rural region with the aim of revitalizing the rural environment and the development of the department.

We see that redefinitions of the functions of pastoralism articulated by the Pastoral Association, in parallel with the reorientation of the European Common Agricultural Policy: in terms of land management and development processes, pastoralism provides the 'backdrop that permits other activities—tourism and other economic activities—to develop.'[19] As a consequence, we can appreciate more clearly the support given by the Pastoral Association to the transhumance festivals. This notwithstanding, these pastoral services opposed the bear reintroduction programme launched in 2005, even if some promoters of this programme noted the parallels between it and the Association's programmes pertaining to rural development.[20]

## Bears, sheep and heritage

Beginning with an objective privileging agricultural productivity, the Pastoral Association actions changed to ones that increasingly supported the development of a recreational and conservative pastoralism. Of course, such practices operated in conjunction with the implementation

of more general processes. However, during the course of the 2000s, this pastoral and heritage consensus was to be shattered following the attempted implementation of another course of action that, while centred around the same values, involved the desire for a bear repopulation programme in the Pyrenees.

The project is complex and provoked much passionate debate. It is not my intention to undertake too extensive an exploration of these conflicting debates, but rather to explore some key aspects of the controversy between two versions of heritage and identity pastoralism.

As the bear population was declining in the Pyrenees, a first safeguard plan was initiated in the 1980s aimed at maintaining the last local Pyrenean bear population. This was formalized in 1984. Faced with a structural plan failure (as the number of bears kept declining), the reinforcement of the population began during 1996–1997 with the reintroduction of three Slovenian-captured specimens. Such reintroductions were included in a LIFE Franco–Spanish programme supported by the European Community and signed in 1993. After considerable turmoil, we finally arrive in the mid-2000s when the French government decided to reintroduce with five other bears in 2006. The announcement of this second plan was to result in considerable public mobilization both for and against the programme in the Ariège, resulting in the formation of an opposition movement. The organization and mobilization of this opposition movement was much more powerful than 10 years before, not only because some farmers understood more clearly the problems that this reintroduction programme was to pose, but also because it led to a political takeover of the programme, especially amongst Ariège Departmental Council.[21]

According to supporters of the bear reintroduction, the animal plays a significant role in the cultural and natural heritage of the Pyrenees. It is an *espèce parapluie* (literally: an 'umbrella specie') as one geographer in favour of the reintroduction said: 'When we protect it, we are protecting all its environment as well'—meaning all the other species in it (*Pyrenees magazine* 2006). It must also be noted that we cannot reasonably ask African countries to protect their large mammals if we do not protect endangered species in our own 'back yard'. The bear has always been an element of the Pyrenean cultural identity, as demonstrated by the proliferation of tales, topographical names and legends about it. The argument is centred on the notion of a common heritage, reaching out towards universalism and the future—a heritage-oriented resource management for future generations.

As far as social acceptance is concerned, some partisan organizations involved with the reintroduction conducted various polls and surveys to legitimize their actions (in 2003 and 2005), which revealed a

majority of inhabitants of the relevant departments, and even more at the national French level, to be favourable to the introduction of the bears. The touchy question of bear damage to the farmers' flocks was quickly resolved: only 2% of total losses suffered by the farmers could be attributed to bears (since far greater losses were a consequence disease, wild dogs, thunderstorms, and so on). Moreover, the enforcement of definite protection measures backed up by the reintroduction programme was aimed at limiting losses (through the use of guard dogs, sentry shepherds, or enclosing the flocks). Far from preferring the bear to the sheep, the 'bear programme' wished to achieve a peaceful cohabitation between the two. In this way pastoralism and ecology—both sustainable—would reinforce one another with a rationale of rural development focused on tourism—the emblem of the bear being a positive symbol of reconciliation between human activities and environmental needs.

As in every controversy, argument provokes counter arguments thereby challenging the reasoning behind such ideas.[22] If the 'justification' (in the meaning understood by Boltanski and Thévenot in 1991) to the reintroduction was based on the legitimacy of popular contemporary notions of sustainable development, as well as public support of biodiversity, the opposition required individuals capable of marshalling a coherent and equally convincing counter argument using equivalent 'principles'. This process was to reveal the political dimension of the debate, so to speak, of the 'pros' and 'cons', as it involved the issue of justice (in other words whether we consider the reintroduction of the bear to be a positive and fair, or negative and an unjustified unfair measure).[23]

In order to avoid reducing the oppositions' claims to a simple categorical logic (namely one of farmers' particularity and past-oriented logic), one needs to take into account the 'bigger picture': the argument of the common good (that is, shepherds maintain the mountain and all who benefit from it, so what will happen to it if left abandoned?). Moreover, there is the issue of common heritage, for instance, who is going to protect the Pyrenean heritage, especially that of the pastoral environment, if the farmers are not going to do it? Besides, the opposition found some support, both political (representatives, general counsellors, mayors and the like) and institutional (agricultural unions, chambers of agriculture and so on). Most of all, it allowed for a joint operation with other related causes (the natural return of the wolf in the Alps, or the situation in Spain with bears and wolves) thereby consolidating a movement that went beyond a mere 'simple' Pyrenean case. In the same way, partisans for reintroduction, already called 'ecology talibans'[24] need to be 'diminished' by insisting on the influence of networks set up by various nature conservation associations that, far from establishing a convincing, even

winning, argument, are negotiating in power games in order to achieve a naturalized legitimacy for their cause.

So, by playing this 'game', bodies acting as pressure groups are formed on both sides with opposing arguments strategically placed on the same 'playing field' as those developed by those in favour of the measures: the common good, heritage and, above all, biodiversity.

Indeed, during the course of the year 2007, following the ideas of a small number of people within the opposition,[25] the conception of pastoralism as a central actor in the preservation of biodiversity preservation was promoted. The idea was not a new one and had already been adopted by organizations involved in nature protection (the International Union for Conservation of Nature [IUCN] for example).

However, such considerations apart, it should be noted that the bear reintroduction programme involves the protection of an animal-emblem that is not endangered in Europe (at least)—although the specific Pyrenean species of bear is now extinct—while numerous local domestic species, especially sheep and bovines, are under real threat. And these animals constitute a 'normal biodiversity' that is recognized by the French national authorities.[26] The goal here is to preserve 'biodiversity with a human face' where human actions are perceived as constructive and not mainly negative—a claim attributed to the reintroduction partisans that would deem human influence to be first and foremost a negative one. The question of the bear remains accounted for, but ends up integrated in a more general perspective, allowing for detachment of the pro/con debate while maintaining one's position: an opposition to the 'wildification of the massif' policies (*ensauvagement du massif*) provoked by bear reintroduction programmes.

We could keep going back and forwards between justifications, denunciation of the justifications, and denunciations of the denunciation for quite some time. Yet, no major 'fact' or argument has since been produced to modify the controversy. Of course, these arguments are considered here without in-depth analysis of the individuals and/or situations concerned, or of the precise chronological order in which these arguments and counter arguments came about. Despite this, the aim of this study was to identify some common elements used as foundations for the different approaches towards pastoralism, and to evoke the existence of conflict(s) for the defining and appropriation of 'nature'.

What we witness is the emergence of a strong ethic of 'heritage' (Montgolfier and Natalli 1987). Today the term 'heritage' is used as an all-purpose word exhibiting positive connotations and one might think that its widespread use in different actions and gatherings is rather rhetorical. However, the use of the category addresses the issue of 'nature' in the light of management practices[27] while at the same time defining

particular functions of pastoralism and its place in the natural order.[28] In that respect, uses of the notion of heritage appear to be profoundly political, as they define not only those perspectives but also those who are going to apply them.

Besides, each of the perspectives presented here reveal the complexities of establishing pastoralism as a positive symbol. Despite considerable consensus about its value as heritage, there remain, nevertheless, important distinctions as to the meanings accorded to this value. Even so, we should note that such consensus exists on the necessity to 'locate' pastoralism within the broader context of rural development, one which transcends agricultural perspectives pure and simple.

Finally, all these perspectives are to be found in the more general historical context of the 'transformation of social customs and rural areas' and the 'redefinition of symbolic appropriation of nature' as Chamboredon (1985) stated it.

The redefinition of production practices, going through a form of limitation of the productive vocation in mountain zones, began in the 1950s to 1980s (*les Trente Glorieuses*) with the creation of what we generally call 'productivity agriculture'—resulting in, by contrast, to the labelling of mountain zones as 'regions requiring assistance' (*zones à handicap naturel*). The relative abandonment of the mountain areas, the difficulties of pastoralism and the transformation of the social composition of rural areas (characterized first and foremost by the collapse of farmer numbers) gave rise to new uses of rural space, supported by socio-economic redevelopment policies (in particular the promotion of leisure activities). In a society, then, largely urban, open spaces were perceived to be somewhere to seek refuge in, thereby giving rise to the notion that the countryside no longer was for the use and benefit of agriculturalists, despite being in the minority: it had become a common good, both for rural and urban people.

As a consequence, mountains, as natural and manageable spaces, can only be defined with regards to perceptions and expectations about them, related to tourism, landscape management, environment or heritage. Despite this, as I have endeavoured to demonstrate, the different social groups benefiting from the mountains do not necessarily share the same pacified conception of their definition as heritage.

## Notes

1. I use the term *ecological politics* in the broadest meaning of the term, referring to the political dimension of ecological claims and not to the political structure behind those claims (such as 'political parties').

2. In accordance with ethnographic research convention, the names of all individuals and institutions are modified or kept anonymous.
3. The Ariège is a relatively poor department, with a weak urban infrastructure and a low-density and aged population. The department has undergone considerable depopulation. Its economy is characterized by its sizeable proportion of the agricultural sector (7% of the active population, compared with 3.5% nationally), specialized in livestock raising and herding (meat and milk production). Industry still occupies 18% of the active population (same as on national level) but the old mono-industrial activities (textile, paper, metallurgy) have undergone considerable restructuring (the secondary sector lost 18% of its workers between 1982 and 1991). Agriculture and tourism fail to compensate for these losses. A number of these economic problems are concentrated in the west part of the department (with lower income and population density, and greater importance placed on agriculture and less on industry, and so on).
4. '*Cette manifestation c'est pas du folklore (. . .) on a veillé à ce que ça serve le metier des bergers, dans la communication, la valorisation. C'est comme une entreprise qui fait une porte ouverte, mais on a eu l'idée de montrer ce métier au travers d'une manifestation*'.
5. Including, of course, the return to the stables, birthgiving, and '*escouage*' (cutting the tail of young sheep), shaving the wool, etc.
6. The markets that take place after the return from the mountain pastures perform this role even more evidently.
7. '*Il faut faire quelque de chose de beau, pas montrer des brebis boiteuses. C'est comme un examen entre nous, on passe devant les gens et ceux qui connaissent, ils regardent les bêtes, si elles sont belles ou toutes maigres*.'
8. Referring to the distinction between criteriality (to define the membership from a case to a whole according to certain criteria) and typicality (to define the membership from a case to a whole by referring to a typical case)—see Thévenot 1983.
9. '*Un produit d'appel "Nature' fabuleux."* '*On a un Euro-Disney naturel ici, il faut savoir l'exploiter.*'
10. Members of the association were both 'pro' and 'anti' bear, the majority being 'anti'.
11. *Journal de l'Association*, special tenth anniversary issue: 6.
12. *Idem*, 22: 2.
13. *Idem*, 11: 3.
14. See especially the *Programme d'Aménagement et de Gestion Paysagère des Sites: Projet d'Application du Programme LIFE au Département de l'Ariège*, 1993.
15. LIFE programmes are European financial tools for environment preservation.
16. These 'local measures' were the departmental application of environmental regional programmes, which have been reinforced by CAP (Common Agricultural Policy) reforms in 1992.
17. '*Des territoires à transmettre, un patrimoine à garder vivant, une identité à sauvegarder.*'
18. *Journal de l'Association*, no. 20, p. 3.
19. According to the Association Director's words (2003).
20. See the '*Note de Synthèse sur le Projet de Renforcement de la Population d'Ours Bruns dans les Pyrénées*.' Ministère de l'Écologie et du Développement Durable, May 2005.

21. This takeover has happened much earlier in the West Pyrenees. See notably Mermet and Benhamou (2005), the authors being in favour of the bear reintroduction and safeguarding programmes.
22. As for the 'pro-bear' approach, the bear would only damage the unguarded flocks, breeders 'letting their beasts go' to the mountain freely despite the proposed protection measures—and even so damages remain low. The 'anti-bear' approach state for its part that the shepherd is a constant vigil over the flock, the livestock is not 'abandoned' on the mountain by European subvention-obsessed breeders; the protection methods are not adapted; damages remain important in absolute value but not in relative value, as they are focused on limited zones, forcing some breeders to give their mountain pasture up. The 'opposing shepherd's' response to the 'partisan shepherd' then either brings a tuning of the arguments or a stiffening of opposing positions that could easily slide in teasing and stigmatization of the adversary on ideological or moral basis.
23. Several authors wrote on the application of the Boltanski and Thévenot models on ecology. See Godard (1990), Lafaye and Thévenot (1993) and Latour (1995). Focusing on the controversy itself, I will not enter the debate, even if Latour's conclusions insist on the question that ecology reveals the limits of this model.
24. The opposing parties were, for their part, deemed 'ultra pastoral', with violent and anti-democratic practices aimed towards the bears (trapping, hunting. . .).
25. He does not belong to any laboratory or university, which will eventually limit his quality as scientist and specialist in the eyes of pro-bear supporters.
26. In France, see the *Stratégie nationale pour la biodiversité*, 2004.
27. On the background of the passage from nature protection to environment or biodiversity management, see notably, for the first Mathieu and Jollivet (1989) and for the second Raffin (2005). About the mutation of sensitivities regarding nature on the 'long term', see Thomas (1985) for the English situation.
28. Therefore, if we compare the logics brought by the Pastoral Association to those of the bear reintroduction partisans, we can hesitate to define and analyze the diverging principles: on each side there are sustainable management (reasonable use of nature to allow for its future use) and preservation (specific treatment of certain spaces, most of the time 'remarkable ones' and placed in 'reserve') objectives as the ultimate reference to 'Mother Earth', the divisions being between 'humanized nature' and 'naturalized nature' factors.

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*Chapter 8*

# Shepherds, Hydroelectric Stations, and Ski Resorts: The Pallars Sobirà Landscape

*Oriol Beltran and Ismael Vaccaro*

At the end of the 1980s, the district of Pallars Sobirà, located on the southern slope of the central Pyrenees, was displaying numerous symptoms that signaled a profound crisis. After more than a century of demographic decline, the district's population was showing notable signs of aging and the majority of its older towns and villages seemed close to becoming completely abandoned. Moreover, the ranching and agricultural activities that were still in practice at the time were threatened with a lack of generational continuity. With a lack of economic alternatives, all indicators pointed to an imminent social collapse.

Today, only two decades later, this district is well known for its growing dynamism and great potential. The central position currently occupied by tourism serves as proof of the important role that outsourcing has come to play in the area. In recent years, there has been a steady growth of mass tourism in Pallars Sobirà, manifesting itself in the opening of ski resorts and promotions in real estate, particularly in secondary residences. At the same time, numerous initiatives aimed at bringing the most relevant natural and cultural aspects of the district under national heritage have emerged, and the district is displaying a significant concentration of protected areas and museums centered on different forms of traditional life (Vaccaro and Beltran 2007).

These two historical moments are part of a far-reaching process in which the physical space of the district has played a protagonistic role. Until little more than half a century ago, the territory of Pallars Sobirà offered the necessary natural resources for the local population to sustain itself, a population which, at the time, primarily lived off ranching and agricultural activities guided by a logic of household and community consumption. However, in the framework of the new economy, the territory itself has become a highly valued commodity destined to satisfy the demands originating in the tourist market. The lines of this transformation have remained inscribed on the landscape of the mountain, which

far from constituting mere scenery and passively aiding the mentioned events, reflect the factors that have brought about their transformation.

In this chapter, we examine the characteristics of the Pallars Sobirà landscape, and reflect upon the dynamic interactions between nature, politics, and society it demonstrates. The analysis of the landscape, understood as 'the material manifestation of the relations between humans and the environment' (Crumley 1994: 6), cannot limit itself to the mere consideration of its physical and natural traits, but must also focus on the diverse social variables involved, as well as the existing connections between them. These variables include (apparently uneven) elements such as demographic evolution, forms of access to resources, institutions responsible for resource management, and/or the economic activities present in places at different times. Each of these variables can only be fully understood as part of a complex historical process underlying them. The landscape of the Pallars Sobirà stands in a privileged setting for considering the changes experienced by the Pyrenees in recent decades.

## The landscape of hypermodernity

The creation, in a span of a few years, of natural protected areas and the establishment of various ski resorts as well as the proliferation of apartments and other one-family residences destined to function as secondary homes, are without a doubt some of the most relevant features of the contemporary landscape of Pallars Sobirà. These phenomena serve as evidence of the process of outsourcing that has occurred in the district, and permit us to locate its position within a post-industrial economic framework.

The rise of initiatives intended to place a value on natural spaces and cultural features by converting them into national heritage is part of a process that is closely linked to the contemporary redefinition of rural territories. In the framework of the industrial economy, these territories provided the raw materials, the labor force, and eventually, the energy necessary for the development of urban areas. Economic globalization, however, has favored the transfer of these functions to regions farther away from the urban centers of the first world. In this context, rural zones have tended to redefine their role within the growing market in urban leisure, prolonging their former position of dependence.

Mountain regions represent spaces with a high potential for participating in the service economy, especially when linked to the concepts of free time and leisure. As a result of their marginality in industrialization processes, their territory tends to present low levels of occupation and utilization. In this way, these areas become especially apt for meeting two types of demands that intersect with the tourist economy. On

the one hand, these regions are attractive for those activities that require specialized professionals and skills, such as the building of sport complexes (for skiing or golf), conservationist policies, and real estate promotions. Simultaneously, they grant a certain legitimacy to those products for consumption that attain their market value by making reference to the past and the idea of authenticity, such as food that has origins in the area or local crafts, as well as ethnological museums and historical monuments.

The creation of Alt Pirineu Natural Park in August 2003 represented a milestone in the unfolding of conservationist policies in Pallars Sobirà. The park, covering a total surface of 69,000 hectares, affects 13 of the 15 municipalities of the district, and covers 55.22% of its territorial extension. While natural conservation policies took off at the end of the 19th century, in Catalonia, it was not until quite recently, with the approval of the Natural Spaces Law (*Llei d'Espais Naturals*, 1985) when a plan for the territory as a whole and for specific sectorial regulation was developed (Font and Majoral 1984). The creation by decree of the Aigüestortes i Estany de Sant Maurici National Park in 1955, the only Catalan park subject to maximum protection under the legislation was the first conservationist measure that directly affected Pallars Sobirà. With an extension of 13,901 hectares, this park has 5,247 hectares within the Pallars Sobirà territory, belonging to the municipality of Espot, and to which are added another 8,446 hectares that are considered a peripheral zone.

The approval of the Natural Interest Spaces Plan (*Pla d'Espais d'Interès Natural*, 1992) led to the declaration of eight natural interest spaces in Pallars Sobirà, with a total extension of 64,145 hectares, making up 46.55% of the district's surface. These spaces became subject to certain basic protection norms aimed at making natural conservation compatible with the utilization of natural resources and the development of traditional activities. The Alt Pirineu Natural Park was created based on the main protected spaces that had been previously established in the district, in addition to incorporating other areas of natural interest (the proposed zones for the Natura 2000 network and various hunting reserves). This form of protection has meant the creation of management bodies and specific budgets. For instance, the park's main objective is, 'the establishment of a state of order and management aimed at promoting sustainable development, that makes the protection of [biological, geological, ecological, and landscape] values compatible with the ordered and efficient use of resources and the activities of its inhabitants' (Decret 194/2003).

In total, environmental protection areas represent 61.78% of the district's surface (more than 80% in certain municipalities), the largest percentage in Catalonia. The protected natural areas of Pallars Sobirà (Table 8.1) extend themselves over valley watersheds and include primarily wooded zones, river courses, unproductive slopes, herbaceous plains,

**Table 8.1 Natural protected spaces in Pallars Sobirà (in hectares).**

| Municipality | Surface | PEIN | PNAESM | PNAP | N2000 |
|---|---|---|---|---|---|
| Alins | 18,319.00 | 13,931.37 | - | 17,283.30 | 15,265.00 |
| Alt Aneu | 21,776.00 | 16,160.30 | 4,960.00 | 10,556.75 | 16,995.00 |
| Baix Pallars | 12,941.00 | 2,214.09 | - | - | 6,680.00 |
| Espot | 9,730.00 | 7,305.33 | 7,305.55 | - | 7,468.00 |
| Esterri d'Aneu | 850.00 | 181.56 | 175.36 | 15.76 | 195.00 |
| Esterri de Cardòs | 1,655.00 | 665.44 | - | 1,299.83 | 670.00 |
| Farrera | 6,185.00 | 2,928.62 | - | 2,976.29 | 658.00 |
| la Guingueta d'Aneu | 10,842.00 | 2,491.69 | - | 3,558.80 | 4,185.00 |
| Lladorre | 14,698.00 | 12,557.84 | - | 11,765.84 | 10,635.00 |
| Llavorsí | 6,851.00 | | - | 4,384.59 | 2,794.00 |
| Rialp | 6,331.00 | 78.12 | - | 420.92 | 3,104.00 |
| Soriguera | 10,639.00 | 1,472.31 | - | 5,389.57 | 8,421.00 |
| Sort | 10,505.00 | 1,310.52 | 1,252.10 | 956.69 | 5,679.00 |
| Tírvia | 850.00 | 12.46 | - | 53.37 | 16.00 |
| Vall de Cardòs | 5,620.00 | 2,835.14 | - | 2,878.71 | 2,371.00 |
| **Total** | **137,792.00** | **64,144.79** | **13,693.01** | **61,540.42** | **85,136.00** |

*Source*: Department of the Envirnonment and Housing. Compilation by authors.
PEIN: Natural Interest Spaces Plan; PNAESM: Aigüestortes i Estany de Sant Maurici National Park; PNAP: Alt Pirineu Natural Park; N2000: Natura 2000 network.

and rocky summits. The absence of human settlements and the underutilization of natural resources in large zones of the mountain have facilitated the rapid, and less conflictive, implementation of conservationist measures, and have favored its identification as a supposedly 'natural' and 'original' landscape that is highly valued in the market. The promotion of tourism to the area highlights these characteristics, referring to the district's landscape as nature 'intact', in its 'pure form', and where it is possible to observe 'the last virginal areas of the Pyrenees'.

These same traits, however, have facilitated the creation of tourist complexes. In addition to favorable climatic conditions, alpine ski resorts require vast open territorial extensions in high altitude zones. Thus, it is not surprising that Pallars Sobirà has a high concentration of winter resorts. The first resorts were constructed in Llessui and Espot in the mid-1960s, coinciding with the development of skiing as recreation for the masses in Catalonia (Jiménez 1999). Later, five more facilities

were opened: Port Ainé, Tavascan, and Baqueira Bonaigua, for downhill skiing, and Virós and Bonabé specializing in cross-country skiing.

The proliferation of protected areas, resulting from actions promoted by the state, and ski resorts linked to private initiatives, not only share similar spatial requirements, but also share similar objectives. Parks and ski trails constitute products for consumer tourism, distinct strategies through which the territory itself is converted into merchandise. The result of this process is the intense urban growth that populations of Pallars Sobirà are experiencing. In 2001, prior to the growth of a tourist market in the area, secondary homes doubled the number that existed two decades earlier and represented 42% of homes for family use (Campillo and Font 2004).

The full development of conservation policies and of the tourist industry started taking place in the 1990s, when the spaces that would become utilized by these sectors were demonstrating a low level of use in relation to their potential. Depopulation and the abandonment of traditional activities, nevertheless, were the result of certain processes that began various decades earlier. An analysis of these processes requires a retrospective reading of the district's history and the dynamics that have unfolded on its mountains.

## The depopulated mountain

The contrast that exists between the population concentration at the bottom of the valleys and the social vacuum in higher altitude zones represents another notable characteristic of the contemporary landscape of Pallars Sobirà. However, a closer look permits us to identify multiple material remains that point to a population pattern that had been, until the not too distant past, more disperse and homogeneous. The ruins of numerous productive facilities found on the mountain (stables and haylofts, as well as cabins and dwellings for seasonal use), the remainders of certain abandoned population centers and, in particular, a great number of dwellings that remain idle almost year-round, reveal the changes that have taken place in the human utilization of the mountain.

The demographic evolution of Pallars Sobirà in the last century and a half is characterized by significant and continual decline. In absolute terms, and notwithstanding certain eventual fluctuations, the population of Pallars Sobirà experienced a reduction of close to 75% between 1860 and 1991, declining, in this time, from 19,712 to 5,046 inhabitants.

Historically, the settlement pattern in Pallars Sobirà was characterized by the existence of a great number of small villages and hamlets distributed throughout the district's territory, in addition to a few larger cores

**Table 8.2 Population distribution in Pallars Sobirà (1900–1991).**

| | | | Permanent residences per population group (nuclei) | | | | | |
|---|---|---|---|---|---|---|---|---|
| **altitude** | **total pop.** | **total nuclei** | **dis.** | **<5** | **6–20** | **21–50** | **51–100** | **>100** |
| **1990** | | | | | | | | |
| <800m | 1,900 | 10 | - | - | 6 | 1 | 1 | 2 |
| 801 < 1,000m | 2,722 | 21 | - | 3 | 8 | 7 | 2 | 1 |
| 1,001 < 1,200m | 3,562 | 39 | - | 5 | 19 | 12 | 3 | 0 |
| 1,201 < 1,400m | 3,481 | 38 | - | 1 | 20 | 13 | 4 | 0 |
| >1,401m | 864 | 8 | - | 1 | 5 | 1 | 1 | 0 |
| disseminated | 443 | - | 88 | - | - | - | - | - |
| total nuclei | - | 116 | - | 10 | 58 | 34 | 11 | 3 |
| total pop. | 12,972 | - | 443 | 200 | 3,111 | 4,273 | 2,983 | 1,962 |
| pop./nuclei | 111.8 | - | - | 20.0 | 53.6 | 125.7 | 271.2 | 654.0 |
| **1991** | | | | | | | | |
| <800m | 1,716 | 10 | - | 5 | 2 | 1 | 0 | 2 |
| 801 < 1,000m | 1,315 | 23 | - | 10 | 9 | 2 | 1 | 1 |
| 1,001 < 1,200m | 977 | 39 | - | 15 | 20 | 4 | 0 | 0 |
| 1,201 < 1,400m | 828 | 34 | - | 13 | 19 | 1 | 1 | 0 |
| >1,401m | 167 | 5 | | 3 | 1 | 1 | 0 | 0 |
| disseminated | 46 | - | 16 | - | - | - | - | - |
| total nuclei | - | 109 | - | 46 | 51 | 9 | 2 | 3 |
| total pop. | 5,049 | - | 46 | 367 | 1,445 | 889 | 384 | 1,915 |
| pop./nuclei | 46.3 | - | - | 8.0 | 28.3 | 98.8 | 192.0 | 638.3 |

*Source*: Nomenclátor. Compilation by authors.

located at the end of the Noguera Pallaresa Valley and along principal road links (Table 8.2). At the beginning of the last century the median of persons per population unit was 111 individuals. The censuses identified up to 116 populated villages and hamlets that, in their majority, did not even reach 20 permanent residences, among which only three (Sort, Esterri d'Àneu, and Gerri de la Sal) that acted as administrative and service centers, surpassed 100 homes. A similar distribution pattern occurred as well from an altitudinal point of view: two out of three persons resided in areas with an altitude of more than 1,000 meters (close to 200 in some of the four population nuclei situated above 1,500 meters).

The dispersed population also presented significant figures (443 people), and was especially noticeable in the southern municipalities. Isolated permanent residences, nevertheless, were scarce in the central Pyrenees (Solé Sabarís 2004). The utilization of pastoral resources favored the mid-mountain construction of cabins for the keeping of livestock and for

housing shepherds in the spring and autumn, as well as for storing forage for the winter. These constructions, which were numerous in higher altitude zones, came to constitute the nuclei of temporary residence and became associated with certain cultivation practices.

In addition to a more regular and homogeneous population distribution pattern, the registries indicate that there had been noticeable demographic mobility. Until the first third of the 20th century, one out of ten inhabitants of Pallars Sobirà was absent from their home when the census count was conducted. This situation could be seen as a precursor to permanent emigration; however, it tended to reflect the process of seasonal migration. For instance, the settlements situated in higher altitude areas displayed a greater difference between present and absent residents than those located in areas with a more benign climate, and those less dependent on ranching and agricultural activities.

Demographic indicators seem to point to a perceivable continuity of these patterns until the census of 1960. Population movements and shifts generated by the construction of various hydroelectric stations worked to hide the migratory process that had begun with the end of the Spanish Civil War.

The population patterns Pallars Sobirà is currently displaying are radically different from those that have historically characterized the area. Furthermore, the strong population decline occurring between 1960 and 1980 brought about substantial changes in the human landscape. At the same time that its demographic numbers were reduced by half, the population massively abandoned the watersheds and slopes located in high altitude areas, and concentrated in a few nuclei situated at the bottom of the valleys. The accelerated growth of the administrative capital, Sort, that today houses one out of every four permanent residents of the district, is a good example since it highlights this process. Half of the current population of Pallars Sobirà is found in only five population nuclei, four of which are located beside their principal transportation artery. Although the permanent abandonment of former settlements has been exceptional during the last century, rather than constituting the norm, the great majority of these settlements are displaying great fragility.

The most significant changes have occurred at both ends of the scale: today, only five population groupings register more than 50 permanent residences (compared to 14 at the beginning of the past century), while those with five or fewer stable residences have increased almost five times, and make up close to half of the current population nuclei. The consequences of this process vary depending on altitude and distance to the transportation network. In this way, during the last century, the total population living above 1,200 meters decreased from 33.5% to 19.7%, while those residing at the margins of the principal transportation route

declined from 77% to 50.6%. Depopulation also altered the structure and composition of the population (Sabartés 1993, 1998). Aging of the population (23.9% of persons over 65 years of age in 1991), the decline in birthrates (at a rate of 7.23% in the period 1985–1986), and elevated rates of males versus females (a relation of 108.06 in 1991) and single persons (14.52% among those over 50 years of age in 1991) constituted the main symptoms of crisis that the Pyrenean districts, least benefited by tourism, were undergoing at the end of the 1980s, and which affected the mechanisms of social reproduction (Comas d'Argemir 1987).

In the contemporary period, the human landscapes of Pallars Sobirà have undoubtedly undergone significant changes. Alongside a progressive demographic concentration in a few population nuclei, the accelerated process of depopulation in the district in the second half of the 20th century, especially in the 1960s and 1970s, affected the populations located in areas of higher altitude and in lateral valleys, and favored the marginalization of great extensions of the territory. Thus, in this period, the mountain has been depopulated.

## The colonized mountain

In the Pyrenees, the utilization of natural resources for satisfying external demands for raw materials, products, and energy has been more common than an idealized reading of its history reveals. Activities oriented around this end that developed in the modern and contemporary periods, have produced significant changes in the mountain of Pallars Sobirà.

The industrialization impulse present at the beginning of the past century required energy with a lower cost of production and transportation than that associated with the use of carbon. The volume and seasonality of river courses, the unevenness between slopes, and the great number of lakes and basins from glaciers in the river watersheds meant that the districts of the central Pyrenees offered an enormous potential for large-scale hydroelectric production. The constructions promoted—beginning in 1911 by the Barcelona Traction group in the basins of Pallars Jussà and Vall Fosca—marked the beginnings of this new industry (Boneta 2003; Tarraubella 1990). The 10 hydroelectric stations currently present in the district were constructed in a second phase of this process, particularly between the 1950s and 1960s.

The magnitude of the work to be done (perforations, channeling, dams, and roads) and of the technology required, created a high demand for workers who were recruited in large numbers from outside Catalonia (Mateu 1983). These projects had a considerable social

impact on the affected localities, where immigrants could supersede the local population in numbers. Nevertheless, the later functioning of the hydroelectric stations required fewer workers, which meant that many left once their work was over. Hydroelectric stations were not aimed at satisfying local consumption, nor did they favor industrial development in the district, and have thus been described as colonial practices (Arqué et al. 1982). These processes contributed to accelerating the end of household and community consumption and the generalization of market relations.

Hydroelectric projects in the Pallars Sobirà landscape had localized, yet quite intensive effects. Although these constructions did not involve a proliferation of large reservoirs that have a notable effect on mountain physiognomy, the majority of the natural lakes integrated into the electrical production system were repressed to increase their capacity. At the same time, channeling of water, creation of access trails, head offices, auxiliary buildings, as well as high-tension cables and their firebreaks have great environmental and visual effects. The alteration of the water cycle by the hydroelectric industry, and its effects on the ecosystem as a whole, has prevented international endorsement of the National Park, in spite of the actions that have been taken to minimize their effects (Catalán 1997). In this sense, for example, the regulation of lake waters had effects on both its sedimentary and biochemical dynamics as on its physiognomy. Restoration is difficult as the elimination of present practices and utilization of resources would give rise to a new situation and not return the landscape to some anterior state (Catalán 1994).

Hydroelectric stations are not the only way in which natural resources have been used for exportation in contemporary Pallars Sobirà. The iron and steel industry that developed in the central area of the district and Vall Ferrera from the 11$^{th}$ century to the second half of the 20$^{th}$ century, by way of the 'Catalan forge', stands out in this regard. This activity introduced important changes to the forests of the zone due to its elevated reliance on combustibles. In this way, despite the preference for oak and beech wood, and for building facilities close to places where it was possible to burn them, deforestation led to the use of species of lower calorific potential (such as pine and fir) and to the transportation of combustibles from places farther away. Deforestation came to be so intense that it led to the disappearance of certain species that had until then been commonplace in particular areas, as was the case with fir and beech (Mendizábal 2003). The last documented foundry was closed in 1874.

In the contemporary era, the forests of the Pallars Sobirà have also been intensively exploited for wood. From the end of the 19$^{th}$ century onwards, the development of urban construction, the railway network,

and other industries contributed to an increased demand in forest products. The end of the iron industry led to a revaluing of wood, by which local communities with a greater forest patrimony could obtain significant gains. Due to the mechanization of forest jobs and the generalization of transportation by truck during the mid-1950s, the commercial exploitation of wood underwent a significant boom in the Pyrenees until it declined at the end of the 1970s (Iriarte 2002b).

In all the cases discussed, utilization of natural resources emerged from external demands, and did not favor industrial development within the district. Despite often being excluded from urban perceptions of the landscape, the imprints of such utilization of the territory are still evident.

## The expropriated and ordered mountain

Far from being spontaneous and mechanical, the processes that have contributed to shaping the contemporary landscape of Pallars Sobirà must also be seen as the result of the struggle between different social groups that have been fighting for control of natural resources. In this context, the state has played an important role in molding the aforementioned processes through its initiatives and regulation. The district of Pallars Sobirà (and generally the Pyrenean territories as a whole) has been especially affected by state territorialization policies (Vaccaro 2005). This interpretation does not assume that local actors have been at the margins of local processes; on the contrary, they have often been key protagonists (Gil 2000).

The establishment in the 1820s of a single local administration model through the creation of municipalities was one of the earlier actions aimed at creating the modern Spanish state. The administrative diversity existent at the beginning of the 19th century, with hidden jurisdictions and diverse governing bodies and institutions, was perceived as outdated compared to the model established and consolidated in post-revolutionary France that operated with a rationalist framework based on standardized criteria, allowing for the attainment of modern efficiency. The new organization restricted the rank of municipality to local communities that met certain conditions (such as minimum demographic size, connections to the markets, and economic viability), to which essential public services (school, police, communications, and medical attention) would be offered. In Pallars Sobirà, only 33 population nuclei were recognized as district capitals, leaving 100 entities incorporated at a second level, without legal recognition in the new municipal demarcations.

The need to modernize the local administration and adapt it to the changes resulting from rural depopulation was the argument used by the

state to reform the municipal map during the 1960s (Arqué et al. 1979). This initiative significantly affected the entire Pyrenean region, particularly the provinces of Huesca and Lleida (Liesa 1972). At the time, the objective was to simplify the municipal map through the aggregation of municipalities. Moreover, in response to local resistance, the government even utilized coercive measures to implement its reforms. In Pallars Sobirà, these aggregations were carried out between 1969 and 1972, and reduced the number of municipalities to 15.

The process of re-ordering the district according to municipalities not only affected the local administration, but also the management of its territory and resources. The state promoted, in two different phases, a campaign aimed at establishing its legal ownership and rights over vast mountainous areas and their natural resources, at the cost of the rights that local communities had historically benefited from. These measures resulted in disentailment laws implemented during 19th century with the objective of achieving a system of property consistent with the liberal system, resulting in the alienation and auctioning of property goods belonging to civil and religious authorities. The change in land titles was aimed at putting an end to forms of non-individual appropriation in place since the medieval era, and to increase the productivity of a large portion of lands unavailable to the market and benefiting a public agenda. The general disentailment law of 1855 was the most direct legislative measure impacting communal property goods (Iriarte 2002a).

In the middle of the 20th century, a second regulatory campaign, led by state forest engineers, was developed. This territorial public policy completely redefined property regimes and managerial practices of the contemporary Pyrenean mountains. At first, the intervention of technical personnel centered on identifying the mountains that should be exempt from sale to guarantee the production of trees, and in this way, avoid a lack of combustibles and wood for construction, limiting intensive exploitation of the forest (Calvo 2003; Mangas 1990). Later, concerns about deforestation and erosion were justified with the development of hydraulic infrastructures for urban provision, the expansion of irrigation, and the production of electricity, especially in the watersheds of the main hydrographic basins (Gómez Mendoza 1992). From the perspective of forest engineers, traditional pastoral resource and forest utilization practices were at the center of the threats to trees and hydrologic cycles.

Property constitutes a principal factor in the analysis of the social formation of the landscape, in defining forms of access to resources and regulating the uses of the territory. Nevertheless, the processes described, such as the general abandonment of the mountain for ranching, agricultural, and forest activities in recent decades, explain the lack of clarity

**Table 8.3 Property forms on the mountains and forests of Pallars Sobirà (in hectares).**

| Municipality | Total | Municipal | | Communal* | | State | |
|---|---|---|---|---|---|---|---|
| | | | % | | % | | % |
| Alins | 18,319.00 | 14,756.70 | 80.6 | 4,200.00 | 22.9 | - | - |
| Alt Aneu | 21,776.00 | 3,686.30 | 16.9 | 10,800.00 | 49.6 | 6,655.70 | 30.6 |
| Baix Pallars | 12,941.00 | 1,774.40 | 13.7 | 2,850.00 | 22.0 | 3,842.40 | 29.7 |
| Espot | 9,730.00 | 7,480.40 | 76.9 | - | - | 740.80 | 7.6 |
| Esterri d'Aneu | 850.00 | 454.10 | 53.4 | - | - | - | - |
| Esterri de Cardòs | 1,655.00 | 940.90 | 56.9 | 50.00 | 3.0 | - | - |
| Farrera | 6,185.00 | 6,028.00 | 97.5 | - | - | - | - |
| la Guingueta d'Aneu | 10,842.00 | 7,244.40 | 66.8 | - | - | 1,372.70 | 12.7 |
| Lladorre | 14,698.00 | 8,866.60 | 60.3 | 4,878.56 | 33.2 | - | - |
| Llavorsí | 6,851.00 | 3,883.20 | 56.7 | 250.00 | 3.6 | 160.50 | 2.3 |
| Rialp | 6,331.00 | 4,100.10 | 64.8 | 70.00 | 1.1 | 771.10 | 12.2 |
| Soriguera | 10,639.00 | 1,862.50 | 17.5 | 300.00 | 2.8 | 2,980.20 | 28.0 |
| Sort | 10,505.00 | 902.70 | 8.6 | 3,690.00 | 35.1 | 1,970.70 | 18.8 |
| Tírvia | 850.00 | 308.00 | 36.2 | - | - | - | - |
| Vall de Cardòs | 5,620.00 | 4,570.00 | 81.3 | 117.00 | 2.1 | - | - |
| **Total** | **137,792.00** | **66,858.30** | **48.5** | **27,205.56** | **19.7** | **18,494.10** | **13.4** |

*Source*: Department of the Envirnonment and Housing. Compiled by authors.
*Property of residents' societies or associations (approximate figures).

existent today with respect to whom and on what terms it is possible to benefit from public and collective patrimonies.

One of the central characteristics of Pallars Sobirà in relation to territorial property is the high percentage of land occupied by public patrimony (Table 8.3). In this sense, mountains belonging to the municipalities that in their time were categorized as being of public utilization and excluded from privatization (totaling a surface area of 66,858 hectares, 48% of the district's territory) stand out. Those territories acquired through auctions, were, in their majority, bought by residents' associations. Through this juridical maneuver, therefore, the local populations were able to halt state efforts to privatize the mountains, and to continue utilizing the mountains for the common good of local communities. Both situations have

their origins in the old communal property system, which was formed during the medieval period and was associated, until the 19th century, with the different local communities.

The remaining public property, administered by the Generalitat de Catalunya, extended itself over farms acquired by the state during the 1940s, with the intent of carrying out large-scale repopulations promoting the production of wood and to protect the watersheds of hydrographic basins. Legal ownership rights allowed the state to introduce its own criteria for administering resources, often in detriment to local community uses of the land, for instance, with respect to processes such as the channeling of ravines, the regulation of hunting species, or forest repopulation. The repopulations carried out on the Pyrenean mountains, in this sense, have favored the creation of large extensions of conifers instead of promoting local species and securing forest diversification, thus diminishing biodiversity and increasing vulnerability (Iriarte 2002b).

The geographic distribution of the different property forms is consistent with forms of utilization of resources (Beltran 2003). Private farms demonstrate the historical limits that agriculture would have reached, and extend from the bottom of the valleys to cultivation zones in higher altitude areas. Old communal lands, on the other hand, essentially included spaces destined for forest and pastoral use, and those less apt for agriculture.

Through different measures, state territorialization policies in the last two centuries, undoubtedly, resulted in directly curtailing the autonomy of local communities. The changes to the municipal map not only led to an administrative simplification and greater centralization of services (indirectly favoring depopulation), but also led to a loss in political capacity and marked confusion surrounding ownership of local public goods.

## The mountain as a vital space

Contemporary transformations that have contributed to shaping the current landscape of Pallars Sobirà are part of a long social and historical process. Furthermore, the discourses that accompany touristic uses of the territory and contribute to its valorization as a commodity tend to ignore two key aspects. First, the Pyrenean mountains offer landscapes historically molded by human action. Their form is the result of particular forms of life and specific uses of natural resources. Second, populations inhabiting these spaces have long histories in the area (Farràs 2005).

The construction of the first hydroelectric stations 50 years ago promoted economic change in Pallars Sobirà. Although the process was

initiated previously, the move toward monetary economic relations and a productive orientation to the market expanded at this time, bringing about radical transformations in the landscape. Until this point, the productive uses of the mountain by families inhabiting it were informed by the logic of household consumption and diversification. In the mid-19th century, the simultaneous maintenance of agricultural and ranching activities created a situation of productive complimentarity. The physical characteristics of the district placed a limit on the diversification of crops for human consumption and productivity itself, which relied on rudimentary techniques (annual fallow, simple crop rotation, scarce manuring). Under these circumstances, agriculture could only improve its results through augmenting the cultivation area. A great number of small population groups, characteristic of the older population patterns of the district, responded to these circumstances by situating their places of residence close to spaces available for cultivation.

Historically, demographic pressure promoted the expansion of agriculture to the detriment of the forest. Cultivation terraces constructed to correct the inclination of slopes and the facilities associated with temporary cultivation at mid-altitude represent only the most visible features of a mountain that had been more densely populated and where any portion of fertile land was utilized for cultivation. The traces of this heavy population load are also inscribed in the configuration of the forests. For instance, during the 18th century, agricultural and ranching activities underwent significant expansion to the detriment of the forest, in a process of privatization of parcels at the expense of communal patrimony.

Set against agriculture for family consumption that lacked surpluses, the development of modern and contemporary ranching activities in Pallars Sobirà is explained by the orientation of the district to the market. Until the middle of the last century, the most common ranching activities combined different animal species in extensive exploitations of small and medium dimensions. The foreign market had an impact on the fluctuations of this activity, favoring different species at different times: work animals, production of wool, meat, or milk. The former predominance of sheep, with a few head of cattle for family milk consumption and for work, was substituted by a new model, strengthened in the second third of the last century, in which large livestock for sale predominated and sheep decreased.

As in other mountainous regions, ranching activities favored a more complete utilization of the territory as well as increased connections between its distinct spaces. For example, herbivorous herds permit benefits to be derived from herbal vegetation that cannot be used directly for feeding humans, and to make a more efficient use of resources available

on the mountain, both spontaneously (for example, alpine pastures formed by thawing) and those artificially produced (scything meadows in deforested areas). Altitudinal transhumance had a particular effect on the landscape configuration of Pallars Sobirà, especially on the subalpine floor, affecting the dimensions of the pastoral surface as well as its composition and quality, which depend on the maintenance of a certain livestock load. In addition, the development of migratory herding during the modern age favored forest thinning, particularly in less inclined areas, as well as the decrease in its superior elevation by fire and over grazing, accentuating deforestation caused by agriculture.

Livestock in Pallars Sobirà, particularly sheep and cattle, has been typically submitted to a process of vertical transhumance. Beginning in the spring, the slow improvement of environmental conditions according to the altitude permitted the progressive ascendance of animals up the mountain (at the same time that it limited their interference with cultivations). The ascent to the supra-forestal meadows tended to be communally organized, bringing together in one sole herd the head of cattle of the different family exploitations. Collective pastoralism based on communal ownership of pastures limited the costs in time and labor of ranching activities, with livestock left at the hands of a few shepherds. After summer, livestock undertook the inverse route toward the valleys, grazing in autumn, again at mid-mountain level. With the arrival of winter, livestock was kept inside stables in the interior of towns, fed with harvested herbs and forages. Complete transhumance, which involved winter pastoralism outside the district (toward Urgell, Garrigues, or Llitera), began to decline in the mid-19th century and became limited to a decreasing number of large land owners, until it practically disappeared a century later (Roigé 1995).

In addition to its important function in delimiting the composition of alpine pastures and sub-forestal meadows, winter shepherding played a role in the configuration of the forests. Sheep and goats not only grazed the boundary between wooded and pastoral areas, but also entered the forest interiors (especially with the proliferation of forest trails), affecting the undergrowth as well as the generation of wooded areas themselves (Mendizábal 2003).

Due to progressive productive specialization, ranching activities ended up constituting the principal agrarian activities, which despite a general increase in cabins, rested in the hands of an increasingly reduced sector. The increasing migration from the mid-19th century on, and the consequent abandonment of agriculture, favored the enlargement of farms and a concentration, greater each time, in the management of animals for obtaining meat or milk. The conserved fields were increasingly used for the production of herbs, leading to the abandonment of former crops

for human consumption (cereals, legumes, as well as vegetables and fruit trees), and thus also reducing the previous diversity.

Together with agricultural and ranching activities, traditional practices linked to family and community consumption also included certain extractive uses of communal fields. Wood from the forest had common uses, such as for domestic fuel and construction materials, and for the making of utensils. However, the mountain itself also offered rock for construction, water for irrigation and the operation of mechanical devices, plants for consumption or medicinal purposes, as well as animals for hunting and fishing, among many other resources. As these resources were obtained through extractive and predatory practices, their abundance and composition depended on their intensification in times of greater demand, generally linked to demographic pressure or their abandonment due to depopulation and a greater connection to the market.

The decline in agricultural and ranching activities was a major contributing factor to the transformation of the current landscape of Pallars Sobirà. Former cultivation fields, beginning with the most unproductive and inaccessible, tended to be abandoned and quickly became taken over by trees and thickets (Lasanta et al. 2000). In reality, this reforestation, which contributed to the visual predominance of natural elements that are appreciated by tourists, hides a plant composition dominated by opportunistic species and by rapid growth.

A similar effect is being produced among the animal species of the district's mountains and forests. The historical records provide evidence of significant changes in the composition of the fauna in the modern and contemporary era, where the disappearance of the brown bear and wolf are notable. The decline in agrarian activity and depopulation, together with actions favorable to conservation and the introduction of foreign species, are promoting an unprecedented fauna inventory, with a proliferation of certain species that formerly had marginal or no presence in the zone (for example wild boar, roe deer, and fallow deer).

The absence of pressure from primary activities in the physical environment has brought about significant changes not only in the formal dimensions of the landscape, with a clear tendency toward the disappearance of the previous diverse composition and a growing uniformity, but also in its own biological composition that is experiencing a loss in diversity (Esteban and Pèlachs 2003; Molina 2002). Human utilization of the district's space has followed a similar evolution. Diversified production oriented toward household and community consumption has decreased through the evolution undergone by Pallars Sobirà and its growing linkages to the market, which has implied a progressive

tendency toward mono-crops, first through ranching and later with tourism.

## Conclusion

In the last two decades, Pallars Sobirà has undergone a significant process of outsourcing. In the context of the new economy, the district offers numerous attractions for touristic uses of its territory. On the one hand, the many material imprints of forms of life developed in the past remain, and favor associations with ideas of tradition and authenticity. At the same time, the physical space of the district reflects a use of resources that has been less intensive across time, a reason why the dynamics in the natural environment have played protagonistic roles across time.

The rapid establishment of the tourist economy, however, not only links itself to cultural and natural values of the district, but also to its social conditions. Historical processes deriving from depopulation and a low level of use of the mountain created the bases for the establishment of sectors that require the large open areas. The state has been a key player in this process by way of its administrative ordering policies, expropriation of communal patrimonies, and forest management. Actions aimed at natural conservation, through the creation of protected spaces, which in Catalonia are found with a greatest concentration precisely in the mountains of Pallars Sobirà, are the latest version of territorialization campaigns carried out by the state.

The analysis of the Pallars Sobirà landscape, in addition to illustrating its socially constructed character, emphasizes certain relevant contradictions that seriously compromise the future of the district. Traditional agricultural, ranching, and forest activities historically molded the natural space, and through a complete and diversified use of the mountain, favored high levels of biological diversity. Together with the decline of these activities, the current tourist model has created intensive local-level pressures, set against a void and abandonment that presently characterizes the greater part of the territory. The effects of the industry's development are being evidenced by a growing uniformity and simplification of the landscape, as well as its increased fragility and vulnerability, and a general loss in biodiversity. From both a social and biological viewpoint, and definitely from an environmental stance, the mountain has been impoverished.

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*Chapter 9*

# Rusticity, Wild Flora and Fauna Patterns, and Identity in a Valley of Cadí (Alt Urgell)[1]

*Joan Frigolé*

The objective of rusticity production strategies is to recreate a rural environment, from houses and villages to traditions, while at the same time wild flora and fauna reintroduction tries to recreate the 'natural' element in the landscape and the native element in nature. These strategies are inspired and legitimized by a global conservation ideology whose main goal is to recreate an earlier socio-ecological stage, conceived as primitive or primordial associated with the beginning of time. From this perspective, the conservation of culture and nature is regarded as a process that repairs the historical human impacts on the environment. In so doing, conservation initiatives eliminate the changes caused by time in order to recover a manner or style thought to be original and sometimes described as being natural or native. This chapter ethnographically documents the patterns and strategies of rusticity, wild flora and fauna production; their role in reshaping a pre-Pyrenees territory in response to the agricultural and farming economic crisis; and their contribution to developing a tertiary sector of economy (Frigolé and Roigé 2006).

Since the 1980s, the restoration and conservation of culture and nature in the region of Alt Urgell has intensified. Why did restoration start in this period and not at some other time? The economic crisis in agriculture and dairy cattle required that the territory provide itself with a new value and significance. As a response, the territory stopped producing goods in order to become the main consumer good in itself, within a context of new relationships between rural and urban areas. Specialization in tourism and, as a complement, in construction has reshaped the position of existent population categories and has allowed for others such as second residences and workers of the new economy to appear. Strategies for rusticity, wild flora and fauna production provide the territory with different tastes and values that attract tourism.

The ideology of restoration, shared by the administration, politicians and experts, and the local population does not guarantee an overall

consensus concerning the reintroduction of rusticity and wild flora and fauna. There are different degrees of consensus and discrepancies. Generally speaking, the actions affecting cultural elements are more susceptible to consensus, while those related to recovering and protecting wild animals create more discrepancies. However, the nature of these disagreements can change depending on the type of animal.

## Rusticity production strategies

Rusticity production strategies can be defined as a collection of actions, the goal of which is to produce an image of the rural environment adapted to the new position and needs of the territory. In other words, the goal is to make the territory attractive for urban consumers who experience nostalgia of a real or imaginary world suffering from recession or disappearance. The new image of this rural environment is built through selected elements, according to an ideology of returning to or recovering an earlier stage, one that is envisioned as timeless. It also implies an opposition against those elements that have been added by the historical process, and which are thought to be contrary to the pattern. This ideology associates the conservation or restoration movement to ideas such as simplicity, regional character, purity, and authenticity. Some ethnographic examples include the restoration of houses and churches, and the creation of traditions, also seen as a kind of restoration.

Traces of the successive economic and social crisis are still visible on houses in different villages of the valley, in spite of an accelerated process of restoration and reconstruction. For example, in 2005, in one of the valley villages, six houses were inhabited by permanent residents, 29 by temporary residents who used them as a second residence, and 12 houses were uninhabited due to the precarious or ruinous state of the building. All the second residences had been reconstructed, as well as half of the houses that were permanently inhabited.

Every house has a name, which is a substantial part of its identity within a farming society. Even if houses are in complete ruin or just a plot, the name maintains its identity. One of the rusticity production strategies in relation to houses has been to display the name in their façade, as an individual or a collective initiative. The logic behind this initiative is to maintain an identity linked to a farming society that has already disappeared or is in the process of extinction. Houses are given old names associated to country families that had been forgotten while other names are eliminated, those corresponding to current inhabitants thought to be foreign. An old name adds value to urban buyers; to some, the buying of an old house implies the identification with a history and a compromise of restoration according to this history. Imposing a name

to new houses, meaning a new house that has not been built over an old one, and fixing it to its façade imitates the same logic. Putting up plaques with the houses' names is an innovation partly neutralized by the materials used, which connote tradition and rusticity. For example, in one of the villages wrought iron was used for the plaques.

Stone has become a key symbol for the new conception of rusticity, and therefore of the rural in this new context. Basic operations in house reconstruction and building work include wall roughening, in order for the stone to reappear, and stone coating. In the past, the exterior walls of houses could be covered with materials such as adobe, lime, cement, or paint. In the present, stone is the predominant exterior element in houses, and this is partly the reason why they are considered to be authentic and typical. The authentic and typical are associated with the original, in this case with what is found underneath, which is also by definition the simplest and most rustic element. The recreation of an earlier stage means to recover essential qualities darkened or distorted by time. In the past, the lack of covering over the stone, or the use of a simple covering, were usual signs of humbleness, while a good covering was a sign of wealth. The current symbolic movement to the origins has switched these class values. This movement does not involve a total recovery, only a selective one. The selection of certain elements from the past creates a new model of rusticity that is different from the past pattern and meaning.

The return to a rustic architecture doesn't involve the restoration of a condition of poverty; on the contrary, it creates an added value to houses. Stone constructions in its different variants demand a lot more work than when using standard building materials. The rustic and thus authentic appearance of houses has become an exhibition of wealth, of good taste, which blends in with the creation of a style typical of the place, of the country. The return to the origins implies the eradication of the exterior covering, while stone, paradoxically, becomes the exterior covering of brick houses. Used wood assumes a similar decorative function—wood is cut and placed in door and window lintels and under the roof's eaves to become the ends of the beams that support the roof. Having undergone this process, houses become an imitation, a mock house considered to be original, authentic.

Rusticity production strategies in the interior of the houses include the decoration of houses with obsolete objects from an agricultural culture and the introduction of furniture that has become old-fashioned, which has either been taken from the city, or created by the owners themselves. Some people look for and buy traditional objects. This tendency is not so much inspired by a love for antiquities as it is a way to give back to the house what it used to have or was supposed to have had, or in order to maintain a continuity with what existed before. Creating a house with

a rustic appearance is the result of both recycling and the owner's own work. A furniture restoration course was organized in the valley and had a huge success. The ethics of saving money and work, features that characterize certain generations and social classes, are some of the factors that explain this tendency. Another factor is the integration inspired by an ideology of returning to the past. Therefore, we are facing a modernization project disguised by a rustic, rough, and old appearance.

Rusticity production strategies in the reconstruction and restoration of monuments, in this case of churches, inspired by an ideology of returning to earlier times basically consist of the emerging and strengthening of the original Romanesque. Monuments become simple by eliminating later stylistic elements, some of them belonging to the Baroque. Clara Arbués states:

> Valley churches are more Baroque than Romanesque. In spite of the Romanesque origins of some of the buildings, during the 19th century there was a great transformation: churches were enlarged, new ones were built, etc. A clearly Baroque decorative program was provided, even if Gothic altarpieces from those times were preserved.[2]

Romanesque strengthening strategies consist of eliminating structural or decorative elements. In the valley, the first strategy was to not reconstruct a later annex building that, together with a Romanesque church, formed an architectural totality. The second strategy initially consisted of chipping off the church's interior stone covering because the nakedness of stone was considered to be the original level. This practice also allowed for better appreciation of the structural elements of a very popular architecture.

If these strategies are placed within their own context, that is, in a field of power and competence, relationships between different social actors, one would be better equipped to understand the degrees of consensus and discrepancy around this ideology; the solutions adopted in the name of such ideology and the reasons why these solutions were finally imposed.

In the first case, the decision of not reconstructing the annex building of a Romanesque hermitage can be explained by the pressure of neighbors who wanted a Romanesque monument—the sole example in the territory or region, which was addressed by the mayor for electoral reasons. This decision contrasted the local administration technician's proposal of restoration which was oriented by a historical criterion to respect the appearance the church had acquired through the centuries. In the second case, faithfulness to the origins was resolved in an unpredictable way. The chipping off of a Romanesque interior church as an initiative of the mayor and the local architect was later corrected by applying

a new covering of lime and paint to the stone. This change was due to the knowledge and later persuasion that such was the Romanesque cannon as far as the interior of churches was concerned. This brief outlook becomes far more complicated when we introduce people's point of view.

Just before the solemn inauguration act of a group of restored churches and altarpieces, different points of view appeared between specialists and the local population. While the specialists thought of them as mainly works of art, for the local population they were places of worship or elements that had been preserved and protected by their ancestors. The specialists' historical criteria used in the restoration of the buildings and altarpieces was also applied to the arrangement and decoration of the interior spaces, which implied that some sacred objects were taken away or placed on the periphery. On the contrary, devotion and identification with images and objects of worship was an important issue for the local population. The return to a primitive state implied the elimination of some collective, familiar and biographical significations and references that had been accumulated. In the following cases, one may clearly see the attempt to introduce changes a posteriori by the local population. Women from a certain village apparently agreed to the criterion of nakedness and sobriety that had been applied to the group of churches. They only placed few candelabra and pots with artificial flowers in the two side altars, the only space they had some power over. The women said that only when the village people would be present, would they put all the candelabra and flowers they had, as well as all the candles, which in the meanwhile they kept in a bag. The highest concentration of light would correspond to the altar where the image of the patron had been moved to from the central part, due to the exclusive prominence of the restored altarpiece. As we can see, a lack of consensus can affect any element. For example, these aforementioned women agreed to maintain the old paving stone of the church, which had been made in the same village. However, they thought that if some of the broken paving stones were replaced by others coming from a local old quarry, those from the central corridor, the most visible area, should also be replaced. They accepted the rustic criterion as faithfulness to the original, not because of its beauty. Sometime later they tried to arrange or conceal those defects by putting some red liquid wax on the floor, but it was not effective because the paving stone had been varnished.

Global restoration ideology and its translation into the production of the rustic element has its repercussion on different levels of culture. One must now briefly state the creation of certain traditions, such as the *trementinaires* (turpentine women), women who in the past used to sell medicine plants and traveled through different parts of the Catalan land

(Frigolé 2005). The creation of a museum based on these women can be understood as a creation of a 'selective tradition', though this expression does not explain the selection criterion. One can see the parallelism between the past and present function of these women of connecting the valley and the rest of the Catalan land, as well as the extent to which this was vital for the valley's economic development. However, all this is hardly enough while explaining its recovering. In my opinion, the factor needed to explain this process is the same one that lies behind the fixing of old names in houses, the naked stone in the churches' interior, the recovering of past plates or obsolete objects regarding the farming culture, and so on. The *trementinaires* condensed the typical and the exotic associated to rusticity, better than any other figure of society and of past local culture.

To sum up, this recreation strategy lies behind the creation of a rustic element that is valued in a new context that is local and global at the same time.

## Wild fauna reintroduction strategies

Wild fauna reintroduction strategies can be defined as a group of actions inspired by an ideology of returning to an earlier stage of nature through the recovery and reintroduction of native species. Restraining or repairing the extinction of native species is complemented by the eradication and expelling of those species considered to be out of place, that is, considered foreign or invaders.

Authorities control wildlife reintroduction. For this reason, the National Hunting Reserve of Cadí was created in 1966 and the Cadí-Moixeró Natural Park, in 1983. The extension of land they control is of about 87,000 hectares where 8,000 people live spread over 17 municipalities. The authorities reserve the right to kill wild animals; however, the local population is always ready to take justice in their own hands, especially against those animals they regard as harmful.

Generally speaking, we can say that local populations accept the recovery of elements belonging to culture but are reticent or against the reintroduction of wild animals. In the restoration of monuments or objects of art the emphasis is to return them to an original state, as if they had just been built or painted, just as the ancestors contemplated them. Moreover, the presentation acts of these restored works become homage to those ancestors who made an effort to preserve them. However, quite the opposite occurs when trying to reintroduce certain wild animals, such as, for example, the wolf. Even if the ideology behind is the same, wild fauna reintroduction is surrounded by opposing family traditions, one of conservation and another of extermination. The fact that this opposition of

returning to a past stage of nature is made in the name of ancestors makes the return symbolically unfeasible, because one cannot appeal to a state that one negates or whose existence one is not aware of. In the former case, assuming the grandparents' heritage is to assume a heritage of extermination. In the latter, reintroducing species that have been extinct for various centuries exceeds the time of familial memory.

In a popular harmfulness hierarchy, the first place would be for those wild animals considered useless and those that compete in hunting. Therefore, they create the maximum levels of rejection. The wolf and the viper are at the top of this hierarchy. Tales about their reintroduction share a common element: authorities treat this treacherously.

In 2005, two brothers who were farmers assured that the authorities had introduced four pairs of wolves of both sexes in the Natural Park. They based themselves on a rumor, which they considered to be true, about a vet from the regional capital who would have been called in order to anesthetize the wolves before setting them free. Taking this original figure of four, they calculated the increase in births and cubs per year, concluding that in 10 years there would be thousands of wolves. A young man thought that one or more wolves had been set free from a helicopter in the Cadí mountain range, using the shock caused by the news that the wolf had reappeared as a good opportunity to do it. Another farmer explained: 'Once a year we have a meeting in the park's headquarters. We were told by the leaders that there was a wolf that had come all the way from France. One of the attendants said that it had not come from France but was brought in by a car. None of the leaders said a thing.' To him, this silence was the evidence. Another farmer said ironically about this wolf, native of the alpine area: 'Poor animal, he must have crossed so many highways! He's intelligent! So intelligent to say: "I'm going to go to [Cadí's] Natural Park where I will find sheep and chamois!"'.

In the case of vipers, an old farmer told another farmer that he had found a fastened paper bag with two dead vipers in it. According to him, the bag had been thrown from a plane so that when it hit the ground, it would open and free the vipers. The closed bag was the 'evidence' of his declaration. This farmer said that he killed vipers so they wouldn't kill his sheep that spent the whole day with their nose on the ground. Many valley inhabitants act in the same way. Another farmer who had heard about these stories of bags being thrown out of planes assured that he had seen vipers on the highest parts of mountains where the livestock grazed. He assured that it did not happen before, since vipers are usually found near villages, because 'we feed them.' The logic behind the argument is: we kill vipers and spiders because of its mortal effect, 'viper, extreme unction; scorpion kills; glass snake brings mourning.'[3] If they

have not been wiped out and they appear in areas where they were not found before, it is because the authorities are secretly introducing them.

In other tales, the sky is sometimes represented as a place where new dangers for the territory come from. A woman explained that once her dog hunted a vixen that was infected by ringworm. The disease spread to the dog and later to her hand. The woman stated that this was not the only case, that all vixens were infected by ringworm. Her explanation was that the animals were infected by a fumigating pesticide that was released from planes to kill pine caterpillar. Scorpions have always been present in the valley, but one year there was a massive outbreak that caused an increase of bites to pets. According to this woman, this unusual spread could be explained because scorpions had been thrown from planes to feed small birds of prey. These people's explanations and tales correspond to a loss of control over their own environment and the transfer of this control on to external organisms with their own interests, usually contrary to those of the local population. However, these tales and explanations do not mention the wild fauna reintroduction processes that model the environment.

The use of legends, exaggerations, and irony by the local population tries to show the artificial character in the actions carried out by the authorities to the extent that the authorities, in order to carry out those actions, have to use secrecy and extraordinary measures.

The opposition to the reintroduction of the wolf has caused some different comments. In one of the villages, there was a car that had a sticker with the wolf silhouette and the motto: 'Wolf, we don't want you, neither dead nor alive.' An old man who as a youngster had been a farmer said: 'People were very happy here when the last wolf was shot down, but those fools from Lleida and Madrid, savage as they are [the wolves], want to reintroduce them once again.' Another man, a livestock farmer who lives outside the valley, but around the park, stated: 'The wolf is the cruelest animal, the most carnivorous. In our grandparents' times, in the winter, wolves would come close to the villages and women used to leave the house with a partly burned stick, since fire is the only thing wolves are scared of.' He said that his ancestors killed wolves by poisoning their prey and that he does not disapprove of this action. He considers the wolf as a great enemy to the Pyrenees farmers, 'since it kills a sheep but 10 more abort and the authorities only compensate for the dead animal.' As a hunter, he considers the reintroduction of the wolf as an offense, because the authorities had prohibited hunters to kill chamois so that their number would increase. After making such a sacrifice, the authorities pretended to control the number of chamois by introducing an animal that is a competitor of hunters. In his own words: 'People in this country cannot accept the reintroduction of the wolf, it

goes against their dignity.' An old farmer said that if his father, who had been a shepherd, would rise from the dead and, having heard about the reintroduction of the wolf, he would immediately return to the dead.

The local population's discussion against the reintroduction of wild animals expresses the rejection of a dependency position and the progressive loss of control over their land, as well as the real or imaginary offenses that this process has caused. It also reflects their defense of a domestic economic order. They reject the wild animal reintroduction and protection policy by emphasizing the animals' nature. This is conceptualized in terms of harming, not in an abstract way; they defend their own interests in terms of an agricultural and farming productive system, even if in recession, and of a rural identity. A countryman said: 'They are beasts and they have behaved as such.' Another countryman said about wild pigs:

> . . . because they are beasts, they cause destruction on all the lands. If we didn't use electric fences, no plants or potatoes would grow. They haven't stopped 'farming' meadows, especially those that are closer to the river, because they are sandy. They sink their noses in the land, and then they move it up and down; they cause great disasters. And let's not talk about eagles and birds of prey. If there are any chickens or other animals around, they clear them out. People are very angry; they would have killed them all. And as we say, we cannot kill every living animal, but we need to have some tolerance, with humans in the first place, and then all the other living creatures, because people will respect that. As for myself, I have never killed a living thing.

A woman remembers that one year eagles and other birds of prey killed around 30 to 40 barnyard animals. Another countryman said:

> . . . in the past, wild animals didn't cause so much damage as they do today. Everything was cultivated. There were few wild pigs. And in some years they wouldn't even appear. One night a wild pig caused some damage in a corn field and my father chased after it with a shotgun, he shot but didn't hit it. Wild pigs were much wilder before, nowadays it is possible to see them near a village in daylight.

Paradoxically, when agriculture is reduced to kitchen gardens for individual consumption, damage perception seems higher than in the past. The number of wild pigs does not stop growing. The estimated wild pig density is 3.1 per 100 hectares in a protected area of around 87,000 hectares. All these wild pigs not only cause serious damage but are also a resource and incentive for many local and foreign hunters, as shown in some pictures and trophies exhibited in local restaurants. In one of these framed pictures, there are 38 local and foreign hunters who pose in front

of 12 adult wild pigs that were killed in a shooting in October 2005. Wild pig hunting forms part of the rituals of male socializing and eating. Other animal hunting is more individualistic, individualism that comes partly imposed by the authorities, as for example, in chamois hunting when the hunter must be accompanied by a ranger.

Chamois 'were almost extinct by the mid-20th century due to an excessive hunting. The recovering of the species and the fixing of a solid number of almost 2,000 specimens was helped by the protection and regulation policy initially of the Hunting Reserve and later of the Natural Park' (Vaccaro 2005: 198). The number of chamois kept increasing. Recently, they have been decimated by a plague and the authorities have temporarily prohibited hunting them.

I am giving the local population's point of view on the protection measures taken by the authorities. A young man said: 'What they do in favor of animals goes against humans.' An old man expressed his opinion in these words: 'Since reserves are for animals, people are the least protected. Protection is only for animals.'

Another young man commented on the park's policy in relation to chamois: 'We feed them, but it is them who do business.' 'We' refers to the people from his and other villages whose land is integrated within the park's range and over which they have lost the power of decision, and 'they,' to the park management. Chamois hunting provides huge economical benefits that come from a hunting classification system external to the territory and which transforms hunting into an elitist competition. Chamois hunting licenses are restrictive and this is a first factor in making their prices go up at auction. The second factor is the establishment of two categories: one is known as 'selective hunting.' With this category, the park wants to get rid of those animals that have some kind of physical or aesthetic defect. These licenses are given to the villages that form the park and it is the villages themselves that administer the licenses. The other category is known as 'trophy.' The animals chosen by the park are the most perfect and beautiful specimen, at least from the point of view of their heads and horns, which are the only parts the hunter will be able to take away in the case that he kills the animal. The amounts said to have been paid to hunt a 'trophy' range from half a million to one million pesetas (USD 4,450–USD 8,890). Chamois hunting is one of the elements that provide the place of a distinctive image capable of attracting 'adequate people,' that is, rich or powerful people. This image gives the local population a feeling of superiority over other state territories: these gentlemen are also part of their territory, even if it is in a transitory way.

We need to consider the new population categories whose interests are related to tourism. It is usually young people, coming from the

city, whose expectations on the park are conditioned by the nature of their interests. The owner of a campsite talked about the news of the reappearing of the wolf: 'If there is one and this makes the interest [from visitors] grow, fine.' Criticisms are not usually addressed to the protection policy as such, but to the lack of benefits or of these being lower than expected, for the development of tourism in the area. A young man, when talking about a protected area for the reproduction of capercaillie that determines the skiing slopes extension, said: 'One day, the director of the park will be left alone with the female capercaillie.' This irony highlights that the protection of some animals prevents from seeing another dimension of reality, such as the precarious state of some sectors of the local population. This is again reflected in another sentence from this same man: 'here all things are trifles,' when referring to work and incomes, which can sometimes force them to leave. This man also criticized the restrictive policy for visitors by putting up barriers in paths and slopes to access the park. A mayor from another valley's municipality that belongs to the park, declared: 'A dangerous cohabitation with wild animals has been generated, though this has little impact because animals cannot be seen during the day. What we need is higher investment on effective tourist attractions' (Vaccaro 2005: 199). A local man regretted: 'Unfortunately, this is not Aigüestortes! [National Park].' Criticisms are not so much addressed to the park itself, but to them not providing the same opportunities of making a living from them as other parks do; or simply because this park has little influence in people's ways of making a living out of it in the context of the new economy.

The return to an earlier state of nature also implies eradication or expelling strategies of species considered to be foreign. In this case, the initiative is also carried out by the authorities. A man told me that not long ago an agent of the park came by his village and asked for permission to uproot a plant that had grown in the village entrance. He explained that it was 'an invading African plant' and informed of the dangers of its spreading. Once he had uprooted it, he put it in a plastic bag, closed it and threw it into the trashcan. A woman told me that in the surroundings of a forest house where she was participating on an occupational–educational course on aromatic plants grew a 'very cheerful and beautiful plant.' Her teacher told them that it was an 'invading plant.' In relation to animal eradication, Vaccaro (2005: 186) explains that a mouflon was eliminated from the park, that 'had been introduced in the mid-20$^{th}$ century, for hunting purposes.' This policy can also have exceptions: 'Marmots, even if they are not native, have been allowed to stay on the mountains because they do not compete with any other local species' (Vaccaro 2005: 186).

Wild fauna reintroduction strategies, therefore, try to give back to wide areas of territory their 'natural', native, and old form.

## Wild flora reintroduction strategies

In the past, the shortage of land and the demographic pressure stimulated the plowing of lands and contributed to the recession of wild flora. The image of 'bare' slopes from the past is contrasted in the local's memory with the current vision of slopes full of pines. Wild flora reintroduction strategies are related to the crisis and the fall of the agriculture order, based on the setting up of a clear barrier between cultivated land and wild flora land, and to the advancing of the forest. A local businessman who worked with wood gave his opinion about the future of forests in an official meeting: 'The value of wood has decreased by 40%. We are in a global market. Producing wood in the Pyrenees is different from producing it in the Landes (France). If in order to cut wood we still have to put in money from our pockets, forests are abandoned.' A local mayor who had heard these rumors said: 'It's better to have a nice view.' So, forests are kept and appreciated for their landscape value, an increasing value in the context of tourism. Wild flora acquires a higher value with tourism in that it strengthens the contemplation of nature. Therefore, in opposition to the past, houses that are placed higher are better valued, because they have a better view. Wild flora reintroduction strategies include things that are done to create and others that have been stopped being done.

Points of view are radically different depending on whether the person is a tourist or visitor, or a local. A temporary resident contemplating the landscape from the end of the valley could say: 'It's rough, but charming.' According to Vaccaro, tourists come in search of a mountainous landscape with 'an image of order' associated to 'a jungle-like appearance' (2005: 186). To locals, the aesthetic order is not associated to a proliferation of the wild flora. A farmer said to me when looking at the landscape in front of his house: 'It used to be beautiful, but not anymore; now it's [all full of] hawthorns and junk.' When saying 'junk' he was not referring to actual trash, but to wild plants. In order to explain his aesthetic concept of landscape, he listed a long list of crops: varieties of cereal, potatoes, turnips, beetroot, lentils, chickpeas, peas, beans, cabbages, varieties of forage, and so forth. He insisted that the landscape used to be beautiful when cultivated lands would almost reach the summit and continue in the back. Cultivated lands are beautiful, uncultivated lands, are not. It's not only the colors of the different crops that make the view beautiful, but also the complete order where a perfect correspondence exists between form and content, where beauty

is not dissociated from well-being. Nowadays, almost no lands in the valley are cultivated and this farmer still finds some beauty in his lands and his domestic animals, and occasionally on some cereal field sowed by a farmer that, once grown, would be used for the grazing of cattle. A retired farmer replied to praise about the beauty of the landscape that could be seen from his house, that he could not see any beauty in it, because vegetation had invaded all that once used to be fields. A woman from the city but who had been a resident for more than 25 years was talking to another woman from the valley about the changes on the landscape and concluded: 'Now it has become neglected, it has grown wild, more homogeneous.' The almost absolute predomination of green is a sign of its homogeneity. The owner of a restaurant regretted the abandonment and destruction of fields and paths basically caused by the proliferation of wild rosebushes and other thorny bushes, and the meat cows that occupy such lands breaking the walls and destroying the soil. He was worried about what would happen in the future, since the current situation, he was explaining, had only happened in the last 20 years. He concluded: 'Farmers are the landscape gardeners.' Another man, talking about the abandonment of lands, said: 'There are some places that are just impenetrable, even cows have problems going through.'

If tourists see the landscape as the prism of abundance or overabundance of vegetation, local population sees it as one of the loss of fields and crops. If visitors can identify the progressive increase of vegetation with the recovering of nature and, therefore, as a return to a primitive state, to the local population it only represents a return to a state of chaos.

Since tourism has become the main economic option, an urban pattern has spread, which is opposite to that connected to the agricultural and farming tradition of these villages. People identify themselves with this new pattern, moreover those new population categories that reject the presence of sheep, horses and the like, in the villages. These animals are considered to be out of place because they get streets dirty, spread fleas, cause bad odors, and so on. Animals such as meat cows should be in wild places and wild animals, in parks. Rustic forms are interesting, but only when they come without their earlier contents and functions. The new economy is built over the destruction of the past economy.

## Final considerations

Rusticity, wild flora and fauna production strategies create a new identity of a place that will compete with the identity in other places and destinations to attract 'adequate people and money' (Harvey 2004: 326). As

Harvey further points out, the creation of a distinctive image of a place ends up paradoxically generating a 'serial monotony' of places.

There is a parallelism between the response of this territory to the crisis in their productive system and the response of other territories to good production crisis. Hewison, quoted by Harvey, states that in Great Britain:

> . . . since the seventies, the heritage industry has suddenly become big business. Museums, country houses, urban landscapes reconstructed and restored so that they become an echo of the past, producing copies of old urban infrastructure have created a great transformation in the British landscape. (2004: 106)

Appadurai, on the contrary, links the rise of the heritage industry and the creation of 'a hegemonic idea of Britishness' with the erosion of power by the British state (2005: 214–215).

Rusticity, wild flora and fauna patterns are a type of 'cultural production that uses the past' (Kirshenblatt-Gimblett 2001: 44). This metaphoric movement finds its correspondence with phenomena such as nationalism and the restoration of a primitive state, environmentalism, and a return to nature. Using the reference to the past, new values are created for landscapes, villages, buildings, objects, and traditions that are the basis of a tertiary economy and that contribute to its capitalization. The social imagery associated to the cultural production of places affects the social relationships of the production of this tertiary economy. In this way, desired characteristics attributed to the place can be given preference to other reasons when choosing a job, or can be considered as compensating work conditions.

Nature and culture restoration policies and the ideology of returning to the past that inspires them, strengthen the distinction between local and external.[4] What is classified as 'belonging to the country' is an appropriate tool to express ideas of authenticity and other associated ideas. In construction, we can distinguish between those materials from the country, which then have to be used, and those that are not from the country, and therefore should not be used. Those materials considered to be from the country are part of a pattern that has become the constructive norm—architectonic. The final result is to create a style belonging to the country. In relation to the physical environment, we could make the distinction between native–foreign. Local populations learn how to spot foreign 'invading' plants both by written means, such as the Natural Park leaflets, and the direct performance of agents who fight the spreading of such plants. Paradoxically, in the name of native restoration, an animal coming from Central Europe such as the wolf can be considered a native species and therefore protected, while an

African plant that has grown can be considered an invading species and therefore, eradicated.

While trying to recover or restore an original state or condition there is a risk for the result to become a mock, a recreation, a pastiche. However, it is this result that will provide a new meaning and value to the territory after a deep crisis, because it will be the quintessence of authenticity.

The more or less explicit conservation policies in the field of culture and nature create a territory as if it were a territory from the past. However, this past does not correspond to an actual historical time such as the small farming community that was once numerous in the valley, but is an abstract past, even a timeless past. We could maybe characterize it as a land of abstract nostalgia for visitors.

## Notes

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2. I thank Clara Arbués for her contribution in this sector, though any mistakes are only mine.
3. In the Catalan original, it rhymes: *Escursó, extremaunció; escorpí fa morir; vidriol porta dol.*
4. Distinction that when referred to the population is graded by local expressions such as: *del país* (native of the country), *nouvingut* (just arrived) and *foraster* (foreigner).

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*Chapter 10*

# Tobacco in the Pyrenees? The Ecological Politics of Tobacco in Andorra, a Micro-State in a Global Market[1]

*Dolors Comas d'Argemir*

## Tobacco, a fictitious agriculture

Andorra is a micro-state in the Pyrenees with an area of only 468 km$^2$ and 75,000 inhabitants, of which only a third are Andorran. The country has seven municipalities (*parròquies*) each with its own town halls (*comuns)*. It is the only Pyrenean valley not to have been incorporated into France or Spain, maintaining its independence up to the present day. It is a principality that has had two co-princes since the Middle Ages, a religious figure from Spain, the Archbishop of la Seu d'Urgell, and a political, civil figure from France, originally the count of Foix, then the king of France and now the president of the Republic. The old institutions remained practically unaltered until a modern constitution was passed in 1993, meaning that Andorra was the last vestige of feudalism in Europe. Andorra was a poor country in which people subsisted on mountain farming along with mining and forging. During the 20$^{th}$ century, especially during times of war, Andorra's potential as a duty-free zone for distributing goods was realized, and a dynamic international business developed in tourism, banking, and the cultivation and production of tobacco, leading, in turn, to important demographic and urban increases.

Cultivating tobacco in Andorra seems to be a contradiction in terms, and in economic terms it is, given that it is a mountainous zone, at an elevated altitude, with broken land and little useful surface area, none of which allows for either copious or high quality production. Despite this, tobacco cultivation has been a constant feature in the recent history of Andorra and, particularly surprisingly, there was a great increase in production during the last two decades of the 20$^{th}$ century. This increase was so great that in order to plant tobacco people not only converted old

fields and meadows, but also ploughed up forests and grazing land, used empty urban lots in towns, and climbed higher and higher up the mountains, taking advantage of any piece of land, however small and remote it may be. 'Tobacco is eating up everything,' was the graphic phrase used to describe this process. Furthermore, this happened when other activities were competing to use the land, because during this period there was strong urban and demographic growth, together with expansion in business, commerce, and banking. Tobacco displaced the old agrarian activities, becoming practically a monoculture, and the industry developed significantly. Today the activity is in decline, with production decreasing dramatically in the last five years and several factories closing.

Tobacco production in Andorra entails many paradoxes. The first is its ecological unsuitability. Tobacco is a tropical plant and despite the selection process that has allowed the plant to adapt to very diverse conditions, a high mountain ecosystem such as Andorra's is not exactly the most suitable for guaranteeing a quality tobacco. The second paradox is that most of what is produced cannot be used for making Virginia tobacco cigarettes, which are the cigarettes most in demand in the market and, therefore, Andorran manufacturers have to import foreign tobacco for their products. Only a small part of Andorran tobacco production is used, about 20%; the rest is destroyed, either burned or crushed. Tobacco in Andorra is, thus, a fictitious agriculture.

Despite this, in a third paradox, the farmers modernized their operations considerably, investing in machinery and new drying sheds. The attention they paid to their work, the pride they took in obtaining quality leaves, their anxiety at the threat from hail, the large investments and the running of the operations as real agricultural businesses, none of this seems to tally with the ultimate fate that lay in store for their efforts. In fact, not one farmer will admit that the tobacco destroyed is his own.

There is more. Manufacturers have been buying Andorran tobacco, including that which is burnt, at a very high price, at a political price. The understanding between manufacturers and farmers is formalized in agreements that show the tensions between the two sectors in relation to the production and manufacture of tobacco. In addition to the price agreed for each kilo, a certain percentage is added to the price of imported tobacco, so that on occasions the same crop ends up being bought two or three times. The farmers' profits have been very high during these golden years, as have those of the manufacturers, who used their political power to promote this system.

The tobacco question is not just an internal matter for Andorra. It reflects the flows that occur in a cross-border economy, since tobacco is one of the commonest and most widespread contraband products, and the tolerance or repression of such contraband by Spain or France

has consequences for the activity. In effect, Andorra is a micro-state that has its own economic, legal, and political institutions, but which is enormously dependent on its neighbours. Therefore, the expansion and decline in the cultivation and manufacture of tobacco must be explained by external factors, that is, whether or not the flow of goods across the border can be maintained. However, there are also internal factors that are not just economic or ecological, but also political and social. Obviously, tobacco cultivation should not have developed in Andorra for ecological reasons alone. Economic reasons also fail to justify it, since the tobacco produced in such adverse conditions is never going to be a profitable product. The high profits obtained can only be understood from a political perspective.

There are three aspects that may be considered important in understanding the logic behind tobacco cultivation in Andorra. The first is to challenge the *economic rationality* of this system, given that this rationality does not seem to exist. We have to relate the economics and the ecology of tobacco to social and political factors to establish how they are involved in using and appropriating resources and to analyze how these feature in society's mechanisms of production as a whole (Godelier 1974). I am thus choosing perspectives from political economics and political ecology (see Bedoya 1995; Collins 1992; Comas d'Argemir 1998; Godelier 1989; Murra 1975; Painter and Durham 1995; Roseberry 1988; Wolf 1972). The question of tobacco, on the other hand, is not limited to being a mere peculiarity, and neither is it purely incidental. It is one of those total social phenomena, to use Marcel Mauss' expression (1991), which makes us look at the reasons behind how the principality operates, how it relates with Spain and France, and how it has integrated into global economic flows. Andorra possesses political and economic institutions that have evolved very differently from other places in the Pyrenees.[2] The political border, which marks the boundaries between the states, is essential to the existence of the tobacco sector in Andorra, just as it is also essential that this border can be crossed and that it should not lose its properties as transitional space.

Andorra is a case where global processes become evident at a local level (Borja and Castells 1997; Featherstone 1990; Friedman 1994; Wolf 1987). I consider six elements to be critical to my analysis strategy, and these require progressive contextualization (Schmink and Wood 1987): 1) the production methods of different groups; 2) the structure of social classes and conflicts for access to resources; 3) the ways of integrating into mercantile circles and the mechanisms by which production is increased and value is added; 4) the role of the state and the structure of civil society; 5) the degree of global interdependence, and 6) the ideology

that orients the use of resources and legitimates the political choices that drive certain forms of intervention.

## The indispensable border

If Andorra had not been a micro-state, the cultivation and manufacture of tobacco would never have developed, at least not in quantities large enough for it to be commercialized. Cultivation started in the 17th century, but its expansion did not occur until the 18th century, when Spain made tobacco manufacturing a state monopoly. Furthermore, both France and Spain placed taxes on tobacco, and this allowed Andorra to place its production on the market at lower prices. In fact, right from the start, tobacco has been directly related to smuggling. Tobacco production would make no sense without the border, or without the border's permeability.

The first tobacco factories emerged at the end of the 19th century, and principally used women as its work force, a good many of whom worked in their own homes. This activity, together with the smuggling of tobacco goods by men, provided a complementary income for the poorest families. Until the appearance of highly mechanized modern factories, tobacco production was very sporadic because it increased during times of war and decreased during times of peace (Font i Bartomeu 1979). After the Second World War, the sector experienced significant changes and took advantage of the opportunities offered by the country, such as the customs privileges, the absence of direct taxes, and the affluence of numerous visitors/buyers who opened up a market that had new characteristics. As a result of this, the old cottage industry was substituted by modern machinery in the making of local products. In his study on the Andorran economy, Bricall (1974) states that at the beginning of the 1970s only one of the existing factories was given over to making tobacco for American brands, whilst the rest continued to make traditional products. He also states that tobacco cultivation was on the wane, attributing this to the significant urbanization that Andorra was undergoing and the decrease in cultivable land. We must take this situation into account in order to be able to evaluate the subsequent evolution of the sector. At the start of the 1970s, production was around 250 to 300 tonnes and it was difficult to imagine the spectacular increase that would occur in later years, during which these figures would triple (see Figure 10.1 and Table 10.1).

As can be seen, tobacco production starts to increase significantly in 1983, and peaks in 1996 and 1997 at over 1,000 tonnes. Immediately after, there was a drastic fall in production to just above 300 tonnes, a level it has remained at since 2000. The distribution according to

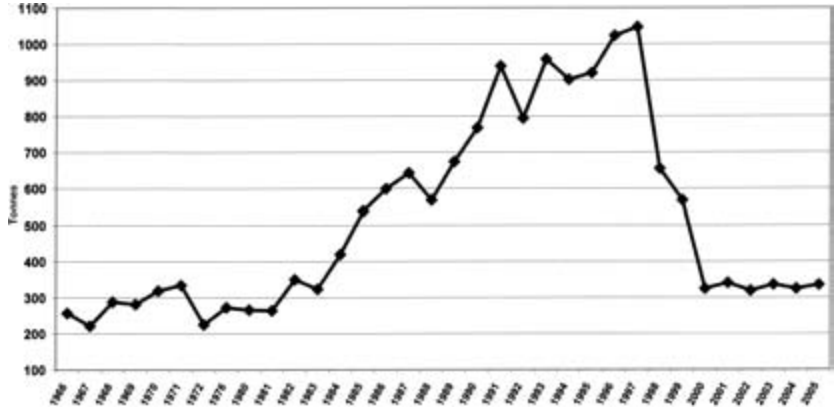


**Figure 10.1** Tobacco production in Andorra, 1966–2005.
*Sources*: 1966–1972: Bricall (1974); 1976: Font and Bartomeu (1979); 1980–1994: Sáez (2006); from 1995: Ministry of Agriculture of the Andorra Government.

municipalities appears in the following table and shows a significant concentration of the crop in Sant Julià de Lòria and in La Massana, which together have 52% of the cultivable area of the whole country. In contrast, in Canillo the presence of tobacco is smaller because it is one of the so-called high municipalities with high altitudes and poor conditions for tobacco growing, although the crop was still produced there during the peak years. The municipalities of Andorra and Escaldes-Engordany, which have better ecological conditions, also have large urban areas that have taken up cultivable land.

The large increase in the tobacco cultivation took place during years in which the border became very porous and manufacturers imported large quantities of tobacco to be processed in the country. This fact correlates with the increase in internal production and with the conditions of the *Contracte entre Colliters i Fabricants de Tabac* (Contract between Tobacco Farmers and Manufacturers), which was originally signed on 4 April 1974 and which provided great advantages for both farmers and manufacturers. Since then this agreement has been renewed and its contents have depended on negotiation between both sectors and on the prevailing circumstances of the time.

If one considers for a moment the conditions that gave rise to the signing of this agreement in 1974, Andorra had already become the country we know today, that is, a kind of commercial duty-free area. The affluence of numerous visitors/buyers and the new fashion for Virginia tobacco opened up a new market for the product. The old cottage industry of artisan manufacturers was being substituted by a new industry with modern machinery. However, tobacco manufacturers had

**Table 10.1 Evolution of tobacco cultivation per municipality, 1965–2003 (in tonnes).**

| | 1965 | 1970 | 1976 | 1980 | 1985 | 1990 | 1995 | 2000 | 2003 |
|---|---|---|---|---|---|---|---|---|---|
| Canillo | 2.9 | 2.3 | 5.1 | 4.6 | 24.4 | 44.3 | 50.2 | 19.5 | 19.7 |
| Encamp | 23.0 | 34.1 | 28.0 | 27.0 | 67.0 | 80.8 | 105.9 | 35.6 | 37.0 |
| Ordino | 27.3 | 49.2 | 33.1 | 31.3 | 59.5 | 92.8 | 113.7 | 42.9 | 44.5 |
| La Massana | 19.8 | 38.9 | 31.6 | 23.1 | 76.1 | 106.8 | 188.5 | 58.9 | 62.5 |
| Andorra la Vella | 78.6 | 102.0 | 80.7 | 78.3 | 107.2 | 119.0 | 103.8 | 39.8 | 39.5 |
| Sant Juliá de Lòria | 73.4 | 92.2 | 94.0 | 96.7 | 170.2 | 291.3 | 316.6 | 111.9 | 116.3 |
| Escaldes-Engordany | - | - | - | 5.0 | 33.8 | 32.6 | 40.9 | 15.6 | 16.2 |
| Total | 225.0 | 318.7 | 272.5 | 266.0 | 538.2 | 767.6 | 919.6 | 324.2 | 335.7 |

*Source*: Ministry of Agriculture of the Andorran Government.

difficulty in increasing production and adapting it to the new demand. The country's tobacco was in recession and imports were limited by quotas: there was a 100 metric tonnes limit to that which could be brought in through France and an 80 metric tonnes limit to that coming through Spain. The latter also imposed the condition that a quantity of Andorran tobacco equal to that which had been imported must be burnt.[3] At first it might seem that the tobacco produced in Andorra was not needed, but in fact this was not the case because the right to import and move tobacco through France or Spain could only be awarded as long as Andorra could prove that it was a tobacco producing country.

The 1974 agreement is the origin of the spectacular increase in tobacco cultivation. The terms of the agreement were as follows: the five manufacturers operating at the time promised to buy the whole Andorran tobacco crop every year for 10 years. In return, they could import Spanish and Virginia tobaccos in quantities equal to the total annual production of Andorra (0.95 kilogram for every 1 kilogram). This agreement was subsequently extended and its conditions remained practically the same until 1993, when significant modifications were introduced, resulting in high tensions between the two sectors involved.

It should be emphasized that it was a private agreement between the manufacturers and the farmers. The Consell General (General Council), the highest political institution in the principality, limited itself to giving public backing to the agreement, to regulating the import conditions and to controlling the obligatory burning of the Andorran tobacco. Furthermore, the Consell placed very low tariffs on gross tobacco imports, while it placed higher taxes on foreign tobacco that had already been processed and was now on sale in the country.

As the agreement benefited both sectors, it was observed for years without any conflict. After buying the entire harvest, the manufacturers had a monopoly on the produce, whereas for their part, the farmers knew they could sell their entire production. Furthermore, the price that was paid for each kilo was a political price, that is, it was above market price. The manufacturers bought all the tobacco, even the leaves that were in bad condition, because quantity was more important than quality; that is, they had to be able to prove that a high quantity had been produced so they could import the equivalent quantity of exotic tobacco. And since most of the Andorran tobacco was of no use, it was destroyed along with that which Spain obliged them to burn.

The growing demand for cigarettes made in Andorra meant that even these conditions did not allow the tobacco industry to expand sufficiently. This limitation was resolved by buying the same crop several times, which allowed more Virginia tobacco to be imported. Thus a system of premiums was established by which manufacturers paid an

additional 7% of the total value of the harvest for every extra 50,000 kg of tobacco that was imported. As a result of this arrangement, which was accompanied by ever increasing consumption, new plantations began to proliferate all over the country, production methods began to intensify, and consequently, the quantity of tobacco produced grew progressively.[4] These were, therefore, golden years for the farmers as well as for the manufacturers, who increased at the same time the amount of tobacco they produced and sold. However, as the years passed, the promise to buy all the tobacco produced in Andorra started to become a burden for the manufacturers, given the constant expansion of the crop by the farmers.

These conditions were modified in the 1993 agreement, which stated that: manufacturers no longer had to buy the whole harvest, but rather a maximum of 850 tonnes; 1.5 kilogram could be imported for every kilo produced (previously it had been 0.95 kilogram); the premium for the import surplus was to be lowered 6.5%; and (in a new clause) the contract could be rescinded immediately. All of these were agreed upon in the midst of high tension that persists to this day and has even got worse: *a)* between manufacturers and farmers regarding the conditions of the agreements; *b)* between the farmers themselves, because the establishment of a maximum quantity of the crop that must be bought means they must reduce their surplus and it is not clear which ones have to do this; *c)* between manufacturers and importers of pre-manufactured tobacco, because they are competing for the same market.

These tensions got worse when the Spanish authorities, at the request of the European Union (EU), began to crack down tobacco smuggling in 1997, because this prevented a good part of the tobacco manufactured in Andorra from gaining access to foreign markets. Consequently, the factories had to reduce production and this in turn had negative repercussions on the farmers. The last agreement, already in crisis, fixed maximum production at 335 tonnes, and this drastically reduced tobacco imports and, therefore, the premiums paid to the farmers for the tobacco that came in through customs. Four factories (out of the seven existing) closed during this period and another was due to do so in 2007 at the time.

In Andorra, the cultivation and manufacture of tobacco only makes sense if it is destined for foreign markets and not merely internal consumption. More than any other product, tobacco synthesizes the idiosyncrasy of Andorra as a micro-state and a duty-free zone where the role of the border is a determining factor. This allows it to sell tobacco at lower prices than Spain or France, and it is the price difference that in turn leads to smuggling. Put simply, without tobacco smuggling, the

complex relationship between the manufacturers and the farmers would not exist.

During the boom years, the tobacco manufactured in Andorra was sold outside the country. It is true that a part of what was produced was sold within the country, but this was mainly to tourist-buyers and, therefore, this tobacco also ended up being exported through them. In any case, the contraband destined for individual consumption was not a significant amount. What was significant, on the other hand, was industrial smuggling—the 500,000 packets which crossed the border daily in the false bottoms of cars, lorries, and off-road vehicles which evaded customs by going down forest trails. Tobacco was even carried on foot in bundles, as in the old days. This large-scale smuggling was controlled by organized networks of traffickers. It is of secondary importance if those who illegally transported the tobacco were Andorrans or of other nationalities, just as it is of secondary importance whether the factories were directly involved or not. The important thing is that the factories indirectly benefited from the smuggling and that without it, neither the tobacco industry nor the growers would have been so prosperous.

For this reason, smuggling has been central, not marginal, to the Andorran economy. Also, this is the reason why the degree of tolerance on the part of the French and Spanish governments directly influences the country's economy. Therefore, the current crackdown of smuggling has had strong repercussions on the tobacco sector. Since 1997, with the direct involvement of the European Union, the situation has totally reversed, to the point that, for the first time, the country passed a law penalizing smuggling. Spain set in motion the so-called Operación Montaña (Operation Mountain), and sent Rural Anti-terrorist Groups to control the frontier, achieving significant results within nine months. As a result, tobacco cultivation and manufacture began to decline.

As has been mentioned, some factories have ceased operating and farmers are trying to counteract the losses this has generated in recent years. Their concern could be clearly seen at the meeting of the Association of Farmers and Cattle Raisers (*Associació de Pagesos i Ramaders*) in December 2006, where it was stated that 'they had reached rock bottom' on confirming the inexorable fall in tobacco importing and manufacturing and, consequently, in the amount grown.

The fall in the value of the land used for cultivation has been compensated in recent years by the property market and the corresponding sale of old plots of land for development. This is favouring the expansion of the property sector, which was fighting for a greater presence in Andorra. Thus, where yesterday there were tobacco plantations, today

**Table 10.2 Area authorized for construction ($m^2$ per municipality).**

| Municipality | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|
| Canillo | 53,583 | 84,534 | 60,057 | 198,857 |
| Encamp | 32,410 | 15,283 | 37,592 | 56,856 |
| Ordino | 13,258 | 27,594 | 14,486 | 51,406 |
| La Massana | 56,738 | 25,751 | 75,707 | 96,240 |
| Andorra la Vella | 127,914 | 53,369 | 146,334 | 55,789 |
| Sant Julià de Lòria | 42,776 | 10,640 | 29,453 | 49,555 |
| Escaldes-Engordany | 48,892 | 92,747 | 92,551 | 97,048 |
| Total | 375,571 | 309,918 | 456,180 | 605,751 |

*Source*: Ministry of Development and Land Regulation of the Government of Andorra.

one can frequently find new buildings. The area that has been developed has increased spectacularly in the last five years, as Table 10.2 shows.

As can be seen, the area authorized for construction increased substantially in 2003 and especially in 2004. Sant Julià de Lòria is the municipality where growth has been most moderate, whereas Canillo is the one whose growth has increased the most, both in absolute and relative terms, almost quadrupling the area authorized for development. Construction fever is very noticeable today in Andorra, with new buildings and developments appearing all over the place, and this is clearly unsustainable in a country with severe transport and communication difficulties.

## The political economics of tobacco

The particular political and legal status of Andorra has made possible some economic and social changes that are very different from other places in the Pyrenees. Nowadays the country is an economic enclave, with characteristics similar to any duty-free area in the world. The duties privileges together with the almost complete absence of taxation has turned Andorra into an important commercial centre where products from the international market are sold at lower prices than in other places, attracting numerous tourist-buyers. The development of strong financial, property and tobacco sectors can also be explained by these conditions (Bricall 1974; Comas d'Argemir 2002; Lluelles 1991, 2004; Sáez 2006).

The peculiar history of Andorra meant that it reached the end of the 20th century maintaining social and political institutions inherited from feudal times and, what is even more singular, these same institutions have enabled changes to occur that have lead to Andorra's immersion in a mercantile economy, fully positioned internationally. This is essential to understanding the internal dynamics of the country, its class structures, the access to resources and, in particular, the tobacco question.

The survival of the old institutions can not be interpreted as a historical anachronism, because they made liberal economic development possible with hardly any intervention by the political institutions. This in turn gave power to the Andorrans themselves and for years allowed the commercial and financial elite to enjoy considerable freedom in their operations, with hardly any social or tax obligations. These conditions can be seen in the entire system related to the production and manufacture of tobacco.

One of the key elements to understanding the tobacco issue in Andorra is that, in contrast to other tobacco producing countries, there is practically no intervention from the state to regulate the activity, so that agreements and conflicts between the different sectors arise inevitably from private relationships. It has not always been thus, instead this inhibition on the part of the political institutions started just as the tobacco industry began to grow qualitatively and quantitatively. During the first half of the 20th century, the Consell General intervened to a high degree, regulating the production, manufacture, distribution, and taxation of tobacco, with the aim of protecting both producers and consumers. This changed with the creation of the Tobacco Board (*Junta del Tabac*) in 1964, which grouped together the representatives of the tobacco factories, who communicated directly with the growers. This *Junta* was created shortly after two new tobacco factories had been created (increasing the number from three to five) and as a result of the conflicts that had begun to emerge with the growers, who were complaining about the low prices they received for their crops.

As the market expanded substantially in the 1960s and 1970s, tobacco manufacturers realized that it was more beneficial to make patented foreign brands under licence. This meant that foreign tobacco had to be imported both to complement the amount produced in Andorra and, above all, to obtain the quality required for making Virginia cigarettes. During these years, tobacco cultivation in Andorra had started to decrease because of competition from developers who needed land, and because of the emerging commercial and tourist sectors, which were profitable than agriculture. If, at that point, all sectors had acted according to the principles of the free market, all the manufacturers would have stopped buying Andorran tobacco, or would have only bought the little quantity they needed, tobacco growing would have been more and more marginal and most of the fields under cultivation would have been abandoned, as has happened in other parts of the Pyrenees. However, various factors prevented this from happening in Andorra.

Tobacco cultivation could not disappear from Andorra because, as has been mentioned, import permits could only be obtained if the country could show that it was a tobacco producer. To keep tobacco farming

going, the manufacturers had to rely on an alliance of the big landowners, because through them they could influence the entire network of producers. It is in this context, that the 1974 agreement is signed, along with a legitimizing discourse that appeals to the need to protect farming.

The agreement was promoted by the manufacturers and was based, in fact, on a pact between the two oligarchic groups present on the Consell General. Furthermore, one of the most important manufacturers and enthusiastic promoters of the agreement, Julià Reig, was *síndic* (leader of the Andorran government) during this decisive period and, therefore the highest political authority in the country. It is significant, therefore, that the Consell General did not intervene in the establishment of the agreement and that this should a private pact between manufacturers and growers. As a political price had been agreed for the purchase of Andorran tobacco, it was understood that this meant that agriculture was being protected and, therefore, the Consell General agreed to set very low taxes on gross tobacco imports, so as not to tax the manufacturers too heavily. This concession, together with the absence of direct taxes, meant that the high prices paid to growers for Andorran tobacco would not significantly affect the industry's production costs.

From this it can be seen that the tobacco manufacturers were interested in holding political power and, effectively, this is what they have managed to do. Apart from a few years, the highest authorities in the country have almost always been people linked to the tobacco industry. And it is from these political institutions that control is exerted over the basic conditions that allow industries to be profitable, such as import duties and taxation. This also allows the client structure to be maintained, which supports the power and the alliances between the different sectors. Another apparent paradox can also be seen here: the state's reticence in regulating the tobacco has not meant that market forces operate freely, rather quite the opposite has occurred. It means that tobacco is not subject to competition and that for political reasons the price of Andorran tobacco is higher than the real market price.

The success of this system lies in the fact that it not only benefits the manufacturers but also the farmers, and not only the magnates, but also the entire group of small landowners, tenants, and sharecroppers, who obtain extra money for their own family economies. It is precisely because the system is founded on this confluence of interests, that its ideological legitimization is based firmly on the need to protect agriculture. Thus the country's highest political institution carries out its basic function, which is to maintain the structure that ensures the conditions for the continual private gain of certain groups.

However, apart from the seeing to the interests of economically powerful groups, the state, as far as it can, must also attend to the needs of

a much large sector of society by creating and maintaining the public services needed by the whole population. The facts that are being related here have occurred at a time when Andorra is experiencing strong economic and demographic growth, the number of foreign residents is increasing all the time and the Andorrans are becoming a minority in their own country. In 1974, when the original agreement was signed, there were 24,808 people living in Andorra, of which only 6,304 (29.4%) were Andorran and subsequently, as the population grew, this percentage continued to fall. When it comes to providing infrastructure and services (roads, water, electricity, civil works, traffic regulation, health and welfare services, education, cultural or sporting facilities, and so forth), the state should provide them to the entire resident population and not just to Andorrans. In Andorra, there is no direct taxation and the state basically gets its money from the duties levied on imported goods. This brings new meaning to the matter being analyzed here.

It should be noted that in holding back from regulating the tobacco sector, the Consell General also relinquishes an important source of income (both from import duties and from direct taxation) and this has repercussions on the public finances. It may be interpreted, therefore, that this mechanism leads to a peculiar distribution of income solely amongst those involved in the tobacco sector. Instead of paying the state so that it can redistribute the income among the entire population living in Andorra, the manufacturers directly redistribute this income among the farmers by means of the prices stipulated for tobacco. The benefits obtained through tobacco are thus shared out among a small group of people who happen to be Andorrans, and more specifically old Andorrans, since it is they who own the farm land. It is also a way of buying votes and making it possible for the manufacturers to hold on to political power.

Andorra, like any other class society, has developed an entire ideological system that morally justifies and helps preserve the existing social and economic conditions. When those involved in commerce, tourism, and finance began to ascend economically, an entire new system of representations was created that placed all its faith in the constant expansion of the new economic activities and in the freedom of the market. For their part, the farmers were the social sector that provided the link with the past and, in the face of the arrival of the new residents, were the group with the legitimacy to preserve its privileges. The boom in the tobacco sector meant that these farmers were not simply a reminder of the traditional past, but an important and relevant section of society. Because of the symbolic weight that farming carries, it was decided that it could not be left in the hands of the market, but that it should be protected. Protecting farming thus is frequently invoked in order to legitimize the

agreement between industrialists and the farmers and to call for the state to be involved in ensuring the conditions for it to continue, which also protects the tobacco industry. Protection, not intervention, is demanded from the state by both the manufacturers and farmers.

The power of various systems of representation resides in their capacity to make their arguments and proposals regarding intervention seem absolutely self-evident. The need to protect farming is one of these self-evident truths that nobody questions, because it is not considered to be the problem of just one sector, but rather the whole country. Thus, for example, during the boom years of tobacco, maintaining farming was presented as indispensable for avoiding ecological degradation that in addition could harm the future of Andorra as a tourist destination. However, this has nothing to do with the conservation policies of other parts of the Pyrenees (Vaccaro 2005), because in Andorra's case it was about protecting the old Andorrans, the tobacco plantation owners, rather than protecting the land. The proof lies in that during these last five years, with the decline of tobacco, there no longer seems to be such an interest protecting the land. On the contrary, it has become a new source of business for the landowners and for developers. It is also significant that the discourse regarding farming should have been modified and that new formulas have been found related to the farmers having a possible monopoly on rural tourism, or to public subsidies for new farming activities.

## Conclusions

The role that the border has played in defining the current activities in Andorra needs to be emphasized again. In effect, if Andorra had not developed a cross-border economy, tobacco cultivation would not exist because it would not make any sense. It is the fact that Andorra is a micro-state, with a special political and legal status, free from the regulation and taxation that is applied in neighbouring countries, which has favoured the cultivation and manufacture of tobacco, because it has benefited from the difference in prices with Spain and France. Andorra has taken strategic advantage of its old privileges to place itself within an international economy.

All this allows one to better understand the rationality behind the cultivation and manufacture of tobacco in Andorra. The paradoxes that showed at first an apparent absence of such rationality now make sense. Cultivating poor quality tobacco at high altitudes, paying a really high price for it and then destroying most of it is not at all irrational if it is understood within the economic, political, and social relations that make up the social system of Andorra as a whole. The conversion

of the country into a commercial duty-free zone provides the key to understanding the nature of its economy and its transformation experienced in recent decades.

Today, the tobacco sector is going through difficult times in Andorra, because the crackdown on smuggling is bringing about its death. The border has been indispensable and as long as it is permeable it will continue to be a key factor in the structure of the Andorran economy; without it, many economic activities would become episodes in the history of the country, as is happening with the tobacco sector. That is why the agreements with the EU are fundamental to the economic future of Andorra and its continuing existence as a country. Once again economics and politics are strongly interrelated.

## Notes

1. This chapter is based on research done in Andorra between 1993 and 1995 together with Joan J. Pujadas, with data that has been subsequently brought up to date. The Government of Andorra financed the ethnographic study. Subsidies were also received from the Interdepartmental Commission for Science and Technology (*Comisión Interdepartamental de Ciencia y Tecnología*, SEC93-0478 y SEC95-0310). I would also like to thank Isabel de la Parte for her collaboration.
2. The borders do not only mark the boundaries between states, but also shape economic activities and systems of life related to the flow of people and goods in adjacent areas (Douglass 1994; Pujadas 1997; Sahlins 1993).
3. Each year the bales of tobacco are burnt before several witnesses: representatives of the *Junta del Tabaco* (farmers and manufacturers), a notary, the representative of the archbishop, and a member delegated by the Spanish Government and linked to the state tobacco monopoly. Due to the increased volume of tobacco to be destroyed, other methods have been used apart from burning such as, for example, crushing, which allows the tobacco to be used afterwards as a fertilizer.
4. Many years ago tobacco production was limited to the municipalities of Sant Julià and Andorra la Vella. The constant expansion of crop meant that it spread throughout all the parishes, as is the case with even the highest, Canillo.

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*Chapter 11*

# Localism as Nationalism in the Eastern Pyrenees[1]

*Eric P. Perramond*

This chapter reports on a long-term project on the environmental history and current political ecology of French and Spanish region of the Mediterranean Pyrenees. The Mediterranean Pyrenees, defined here as the ranges east of Andorra, differ bio-physically from other sections of the massif because of significant differences in the sources of moisture, heat, and weather phenomena that create distinctive patches of both montane and scrubbier *maquis* landscapes along the mountain chain. The Atlantic Pyrenees to the west generally have milder, cooler, and moister weather year-round, not to mention a completely different cultural complex of landscape uses and traditions. This eastern region of the trans-border Pyrenees is also sometimes referred to as Catalonia, home to the culturally self-identified Catalan peoples that on are both sides of an increasingly less significant political border. More Mediterranean in nature, the area has attracted a new legion of inhabitants, and is experiencing wholesale conversions of land use. In a process well known and experienced elsewhere in highland Europe, tourists are now replacing agro-pastoralists in the Pyrenean landscape (Lichtenberger 1988). The result is that past landscape production is being reinterpreted by new non-local residents and future land-use changes will be driven by this new leisure landscape rather than the 'traditional' agro-pastoralist uses of the past. This is occurring throughout much of the Pyrenees (Vaccaro and Beltran 2007).

In the Mediterranean regions of Europe, long-term occupation of most habitable sites is the norm, and humans have left their mark. Geomorphologic research, however, has shown that much of this apparent degradation is of rather old age and that drainage and erosion networks have not changed significantly over the last 4,000 years (Grove and Rackham 2001). In fact, visible signs of current degradation in the form of soil erosion may be linked more to a reverse population scenario, the depopulation of rural countryside in the 19th and early 20th centuries as a result of human migration to urban areas of the Mediterranean

(Blaikie and Brookfield 1987: 125; Lefebvre 1933; McNeill 1992). Specifically, labor-intensive agricultural terraces have collapsed, leading to massive slope failures in some regions and chronic soil erosion in other nearby areas. For small mountain villages, out-migration played a crucial role in maintaining a sustainable livelihood in communities for generations (Netting 1981). Despite this, the consequences of escalating out-migration, modernization, and rural abandonment are also quite clear: abandoned ruins of Pyrenean towns litter the agro-pastoral landscapes of the region (Lovell 1996). A growing but still regionally disparate amount of information exists on the consequences of depopulation for landscape degradation and erosion processes (refer to Butzer 1990; Puigdefábregas and Fillat 1986), yet little of this new literature is focused on how new forms of cultural landscapes are being created by northern European in-migration to the Pyrenees.

While data do exist on the extent of depopulation in the region, most of these are in raw demographic form, with little apparent connection to any form of landscape change due to the new speculative market for northern European retirees and investors (Campillo et al. 1987; Douglas 1975; Etchelecou 1991; Villaró and Campillo 1988; see also IPPR 2006). The literature on depopulation and degradation is replete with supporting evidence, anecdotal and quantitative, that confirms the simple link between human occupation and landscape morphology and disturbance. Yet, alongside these clearly neo-functional ecological aspects, an understanding of how cultural, national, and local–regional identities are being refashioned or recycled is absolutely critical. While much human-ecological research is addressing the bio-physical and agro-ecological effects of depopulation in this region of the Pyrenees, very little exists in published form on the socio-economic dimensions of these changes. Here, one wishes to specifically address the re-population and colonization of small, depopulated towns in the Catalonian Pyrenees lying north of the international boundary. This subject has garnered much popular, but little academic, attention. The latest wave of reoccupation of villages is linked to both the rise in tourist-leisure activities, and to the increasing economic integration of the European Union (EU). This study confirmed this apparent connection between depopulation and landscape re-colonization by Europeans in the study area, a series of six villages on either side of the Franco–Spanish border in the Eastern Pyrenees, in the summers of 2001 and 2003.

Depopulated villages and those with a weak demographic backbone are subject to re-occupation and real estate speculation by non-local Europeans, principally British and Dutch nationals, and now face a new set of economic and ecological challenges in the near-term. There are strong parallels to these new conflicts and encounters, between local

and non-local, found in the past when locals confronted new national bureaucratic structures of natural resource control (Whited 2000). In fact, when analyzed carefully, the same strategies and tactics used by Pyrenean residents during the long struggle between French and Spanish boundary establishment are being used today. Even as the remaining 'national' structures of European countries deal with region-specific policies, such as the *politique de massif* in France, administrations from local to national are struggling to accommodate and react to the latest wave of European in-migration to the Pyrenees. There is no argument for a 'Pyrenean exceptionalism' being made here; the same set of processes are also underway in Eastern Europe where British investors especially have taken note of depressed rural and even urban housing markets for speculation (see Richardson 2006 for a case on Bulgaria). However, it is not always a case of wealthy Britons. For example, the town of Aguaviva in Spain has a significant population of resident Romanians from the small village of Peretu, and while some local residents may occasionally grumble about the cultural dissonance, this new resident population has revitalized a chronically depopulating town (Lungescu 2006). Ironically, as new migration and work permit restrictions are imposed on these new European Union member residents, the same does not apply to EU capital and residential investors. In addition, the varieties of conservation–agriculture conflicts discussed here are familiar to scholars working in developing nation settings, as well as areas considered peripheral to European conservation concerns (for instance, Heatherington 2010).

## Methodology

Research was conducted in the months of June of 2001, and June–July of 2003, with return visits in October of 2006 and summer of 2008. Reconnaissance travel to six sparsely populated or abandoned villages on each side of the French and Spanish border was completed in the first period of fieldwork (2001), while interviews and oral history were collected and conducted in 2003 and 2008 on the specifics of town experience and historical divergence (see Table 11.1 below). These were semi-structured, and while common questions were asked of everyone, there were open-ended opportunities as well. Why have villages of similar size and location met with such different fates? Why are young villagers drawn to a larger town, while neighbors head directly to the metropolis on either side of the border? What changes to the villages have been welcome or intrusive when non-locals arrive? These are genuinely long-term research questions that will require both careful archival analysis, and a geographic approach to demography and economic history. The villages range in population from effectively zero in the case of Cômes (France)

**Table 11.1 List of study villages and source of local informants.**

| | |
|---|---|
| France | |
| Cômes | completely depopulated by 1943 |
| Evol | down to 5 people by 1960, now 31 |
| Mantet | depopulated during WWII, now 20 |
| Spain | |
| Albet | 44 people (2005) |
| Castellbò | 140 est. (2000) |
| Seix (Sex) | 12 (2005) |

*Source*: Fieldwork 2001, 2003, 2006.

to larger villages such as Castellbò in Spain. Nevertheless, interviews were taken in each village, even the 'zero' population village of Cômes, as the shepherd who occupies a stone house in the summer for grazing resides in the nearby village of Eus (population estimated at 375 in 1999). Percentages for informant responses are given collectively, rather than by town or informant name, to ensure anonymity on a topic that can generate local friction. Towns not from the informant pool are used to provide further argumentation and supporting material where necessary.

One of the immediate ramifications to recent changes in European integration is the increasing leisure nature of formerly agro-pastoralist Pyrenean landscapes. This was perhaps the singlemost emphatic point made by all the informants consulted for this study. Based on both guided interviews and free-form commentaries, the points addressed by informants (n = 118) within these villages reflect this latest concern, that an invasion from the northern European nations is occurring and creating new forms of aesthetic landscape capital formerly out of place or simply uncommon. While the total percentages reported below are drawn from the full set of interviews, much of the insight, perspectives, and discussion reported herein are more accurately reflective of the French side of the Pyrenees.

## Nationalist localism in the Pyrenees

The main argument here is that a new form of localism has emerged in the Pyrenees, in areas that have long struggled with maintaining a productive agro-ecological environment. This localism as nationalism has surfaced under various guises, whether dubbed regional patrimony or cultural preservation, as small Pyrenean villages face a wholesale conversion of their local lifeways. However, localism differs from the past forms of non-state nationalism in that it uses the actual or historic 'state of landscape' to drive or derive its specific form. Much of the language,

folklore and cultural defense mechanisms are linked to Catalan identity, even if some dimensions of this cultural identity are increasingly threatened by a growing European pluralism and awareness. Some neo-Marxist critics see this new rise in minority nationalism as symptomatic of so-called invented traditions: even if Catalan as a language pre-existed European forms of nationalism, these pundits argue that there was no Catalan identity, homeland or even formalized language at least until the late 19th century (Hobsbawm 1990:106–107). Yet the historical records and contemporary landscape of sub-national cultures contradicts these past quasi-Jacobin and simplistic assumptions about identity (Gade 2003). The fall of Franco in Spain unleashed a more public expression of Catalan identity forms. Identity, then, was finally 'free' to be revealed after decades of suppression, rather than being 'invented' as a local tradition. This roll-out of newly expressed Catalan identity largely coincided with the beginning of second-home ownership patterns in the region, often by northern Europeans. Indeed, contra this latest wave of immigration into the Catalan Pyrenees, locals are attempting to re-assert not *just* cultural identity based on a shared history or geographic 'homeland,' but *place-based* access rights to natural resources in the region, or what in terms of political ecology might be called a form of 'ecological ethnicity' (Robbins 2004).

While the Catalan region has not seen recent violent conflicts on the scale seen in Basque territories of the same border (Medrano 1995), local concerns about cultural change and identity are no less valid in this case. What 'local' identity means, then, is increasingly problematic as small, deserted, or depopulating villages are the target of second-home development, usually by northern European peoples. Many of the same villages, some of them profiled here, have seen renewed interest by both locals and urban-return migrants hoping to 'rediscover' or in many ways 'reinvent' their village roots. This may be symptomatic of a new trend in the rural areas of the European Union, an appeal to the autochthonous community as a basis for continued national or regional-cultural identity, in the face of socio-economic integration. These communities, then, are no longer imagined but are certainly being re-cast in new rhetorical terms (Anderson 1991 [1983]). The scale and tone of rhetoric from interviews conducted during the summer of 2003 suggest that 'localism' or defending the *commune* or the *comarca* is now the only defensible form of retaining identity and the control over resources long held by a village. In contrast to the well-known macro dimensions of political nation-state sovereignty questions (Keating 2001), here one wishes to detail some of the micro-political dimensions of areas with self-identified national minorities, in this case Catalan residents.

These are far from antiquarian questions: depopulation has left these regions particularly subject to immigrant redefinition. In this case, elderly, alternative, or bourgeois Dutch and English migrants are coming to settle in the Pyrenees. This latest process in the EU's continuing transformation is forcing a redefinition in terms of what 'community' was, is, and will be especially in regards to access and control over territory and resources. While most of these recent EU immigrants (many of them South England 'fog-birds') seemingly make an attempt in respecting local rights to grazing, pathways, and hiking-transhumance routes, rising conflicts are steadily increasing over the confusion of land tenure in the Pyrenees. On both sides of the national border, small villages are once again asserting their rights to the *propriété communale*, even designating some as *réserve communale*, symbolically displaying both environmentalist and nativist-communal tendencies for resource control. It is this last aspect of local ecological perception that is distinguishing this new form of localist identity, contra the past use of nationalist arguments based on ethno-historical and ethno-geographic claims (for instance, Smith 1991).

The new aspect of environmental or resource perception is now adding a type of 'ecological ethnicity' argument to local rhetoric for preserving land-use types and traditional types of landscapes, ones thoroughly humanized. Countering the in-migrant demand and consumption for natural spaces, these localist residents assert use and access rights to a wide range of ecosystem types crucial for livelihoods, from dense, scrubby oak forest to grazed but abandoned farmland. Even if intensive, market-garden agriculture is no longer occurring on a vast scale, active pastoralism and its inherent need for large areas of summer and winter grazing is used as the main basis for these access rights.

## The great white caravans

Every summer, typically in the last week of June, the interstates of southern France begin to be colonized by the great white caravan fleets emanating from the Netherlands. For the Dutch, eager to escape the green, rainy, and too-temperate homeland, the region of Languedoc-Roussillon is increasingly attractive. Here, they arrive with most of their food already purchased, with little need to interact with local communities. They stay in their 'camper colonies' with their fellow Dutch brethren, and stay for weeks, months, and occasionally longer, purchasing land and buildings in the area. Increasingly, the real estate market of small villages has been sparked by Dutch outsider interest, a speculative but sometimes earnestly residential streak that has resulted in some noticeable demographic changes in small places of the Pyrenees. Although the

Dutch summer movement into Catalonia is 10 times smaller than the parallel German seasonal population, the Dutch do preferentially go to the mountains. This is a coarse, and one-sided, perspective on the increasing Dutch presence in the Catalonian Pyrenees but it summarizes local insider perception of the last 30 years.

To be sure, many Dutch summer residents and holiday-makers do bring a great deal of their food and equipment with them in the campers. However, to pin them all with the label of anti-social northern Europeans is of course unfair. Many do establish roots in the places they stay, and this is especially noticeable in the small Pyrenean towns where many Dutch have come to live permanently. In the town of Fillols (FR), one of the omnipresent horticulturalists at nearby farmers markets is Dutch, producing greens now for the last 15 years. In at least a half-dozen towns on the French side, resident Dutch families offer itinerant tours of the local Pyrenean foothills with donkeys and mules. Seemingly benign, these same cottage agro-pastoral enterprises can create local friction. If the residents have not signed on as members of the local livestock association, or simply assume access rights to winter pastures for these same 'leisure pack animals,' conflicts ensue with long-term, local residents from the area. These are not open commons, but rather, they are tightly controlled access rights and past field access rights and ownership are generally well-understood and accepted. Therefore, what the incoming Dutch and other residents have frequently misunderstood is that their purchase of a village house or hamlet does not guarantee or translate into access to communal rights in the agro-pastoral realm.

During June of 2003, for example, a fight erupted outside the town of Ceret. The land in question, now owned by a Dutchman, was suddenly closed off by the new owner. The principal dilemma was one of clear private title ownership versus communal access ('tradition') and the fact that one of the principal hiking trails (GR7) ran right through the property. The owner took the village of Ceret to court, but lost, based on precedent: the individual owner only 'bought' land but could not define the boundaries of access, so free passage was still a requirement. Some 44% of the informants identified 'tenure rights' as being problematic in their communities, illustrating the overall context for these challenges to local governance. Additionally, over 80% of informants believed that non-locals should not have access to communal grazing lands, and over 63% voiced that only fees and fines would be a possible solution for enforcing access to natural resources. Increasingly, Dutch residents or seasonal migrants make arrangements with private landowners from the village to gain access to valuable agro-pastoral lands, much of this in the form of grazing rights. Typically, these are handled on a per-animal cost basis, and only rarely on a 'grazing days' basis for a small herd.

## Fogbirds in the mist

Long before the Dutch were ever apparent to local villagers as an increasingly noticeable 'problem' with complex cultural connotations, the *villageois* of the region knew full well the impact and importance of British in-migrants to the area. Since the late 19th century, when such a town as Vernet-les-Bains gained prominence and notoriety in British Victorian circles for taking their curative hot spring waters, British residents and visitors have been common. What distinguishes the late 20th century from the early 21st, however, is the scale and the type of residential investment and permanency now seen in the region. No longer are the Brits coming for the summer, only to return north again across the English Channel; now, they are coming for good. Many of them reside year-round in the Pyrenees, and those who do not, are spending increasingly large amounts of time. The Institute for Public Policy Research (2006) estimates the figure of Britons living abroad at some 5.5 million, with an additional 500,000 owning secondary homes abroad. This is more than 9% of the UK population and provides a larger context for the scale of emigration occurring.

Even in towns and areas that have had a long-term British influence and presence, such as the aforementioned Vernet-les-Bains, this local versus non-local dimension is felt in decisions that have nothing to do with natural resources. A current group of British retirees is attempting to take control of the restoration of an old Anglican church in this southern French town, and local opposition has been occasionally escorted with rhetoric such as 'it's not their church, maybe their religion, but it's not theirs' and similar statements of 'they can't just move in and start building and restoring buildings they haven't used in decades' becoming increasingly common. Despite the earnest attempt to revitalize the building, with the underlying notion of Anglican meaning 'English property,' the group has met with only limited success in convincing local authorities that the building merits such attention.

Another example, this time from a small village (Nohèdes), was on prominent display during August of 2003. A British entrepreneur/retiree was renting out horses for use in long hiking expeditions and several teams from the agency ended up on the 'reserve communale' of Nohèdes right during the middle of the transhumance cycle of upland cattle grazing. The temporary horse-owners had encircled a small water pool for their animals and were actively excluding the migrating cattle from the water resource. A brawl involving locals from Nohèdes and the British entrepreneur ensued, much to the relish of the local and national press. In both the French and Spanish villages visited, and the ones included here as cases, the constancy of the 'productive' versus 'nostalgic/tourist'

debate was evident. Locals, frustrated with regional efforts to promote only tourist activities, are faced with new immigrants and tourists who expect *only* tourism, rather than places with their own traditions of land-use, resource access, and self-definition. A convincing 74% of all informants found that ignorance of local governance rules was at the root of these conflicts, while only 12% found them to be minor or not problematic in their specific village. In contrast, in one of the Spanish villages, the majority (57%) of informants claimed no such open conflict, and welcomed agro-pastoral participation by visiting or summer resident populations.

## Discussion

This conflict is perhaps more understandable in light of recent land-cover and land-use changes over the last 50 years. As Roura-Pascual et al. (2005) have convincingly documented, subsequent to the depopulation of the Nohèdes communal lands, forest cover doubled in size from 1953 to 2000. New European residents in the region have taken these forests not as a sign of agricultural decline, but as a mark of permanent nature, in sharp contrast to local resident perceptions. For this latter group, these changes signal and represent the local and regional decline in agro-pastoral activities and the invasion of certain woody scrub species they find undesirable or even 'weedy' on terraces colonized by certain trees like the green oak. New residents view the new plant recolonization or invasion of former pastoral lands as either desirable or at least benign ('natural', in the words of one wealthy Barcelonan living in a small village). Long-term local residents view them as detrimental, and worry that the respective (French/Spanish) forestry agencies will become inculcated in long-term land-use decision-making if they are considered 'forest lands' that are of interest to the larger nation-state.

So these recent conflicts emphasize the politics of ecology, that new dimensions of socio-economic troubles are highlighted by the very changes in the landscape. These localized versions of a 'communal nationalism' are seemingly more important today, especially in light of affirmations of Catalan identity, to distinguish them from 'simply European' French and Spanish citizens. This aspect of spinning an 'indigenous' identity in a region faced with a quite real Euro globalization (or universalist localization) is one that demands more attention. If, during the 19th century, the 'peasants' of France and Spain became 'Frenchmen and Spanish' (using Eugen Weber's [1979] definitions and historiography), are we now seeing a nostalgic reversal, as these national identities devolve to the more 'localist,' and in this case, Catalan-based tendencies? In other words, as

one old man from Mantet summarized, *tout le monde veut être paysan en ce moment*. (Everyone wants to be a peasant right now.) Many northern Europeans, especially, British and Dutch citizens, indeed arrive in the region hoping to become more provincialized. It should also be noted that there is never any local consensus on local identity, as one woman noted,

> . . . look at the world out there, we have to speak these other languages and not be so worried that every child knows Catalan . . . where will they use this language other than in Catalonia? It's ridiculous, this silly nationalism based on Catalonian patois, especially when most locals really have no ties to Catalan relatives or past identity.

She was careful to note that her comments were not meant to demean her own Catalan heritage, just that Catalonians must adjust their own conditions of ethnicity to a new, globalized world.

However, as one Catalan resident of the town of Albet responded: 'What a ridiculous sentiment, we are Catalan, and we were here far longer than anyone else before the Spanish or French came into the region.' There is both local, regional and nation-state ambivalence on identity issues and these previous statements reflect the continuum of opinions on the matter. Therefore, perhaps the use of a traditional non-statist form of nationalism, in this case Catalanism, is less feasible or defensible for local, long-term residents, whether Catalan or not. However, appropriation of Catalan identity, language, and dress by non-Catalan immigrants to the region has created some tension over the use of identity in asserting localist dimensions to resisting larger Europeanization. Defending the type of local cultural ecology, or agro-pastoral landscapes and livelihoods, has become increasingly the common parlance of those arguing for preserving regional (cultural) traditions in the Eastern Pyrenees.

This is not to say that environmental or resource politics drives village-level dynamics in the Catalonian Pyrenees. Instead, this chapter has argued that the changing ecology of the region itself has structured and engendered differential views and meanings of that 'ecology,' one viewed by tourists and seasonal residents as a landscape of leisure and visual consumption, the same viewed by long-term residents as a landscape that must be used to preserve the very qualities so admired by both parties.

Political ecologists struggle to explain and at least attempt to predict changes, from Third to First World contexts, from rural to urban, from peasantry to elite processes (Robbins 2002). Understanding and explaining changes in First World locations that were neglected or never emphasized in some endogenous form of economic development, like the Pyrenees, is no less challenging. The region shares much in common with other mountainous or 'marginal foothill' locations around the world.

A culturally distinct group, without its own state sovereignty, split by a national border for centuries and now thrown into a larger European melting pot of economic policies and ecological priorities. Nationalism, tout court, is less defensible when a nation has never been integrated or autonomous. To be sure, the short-term flirtation in Spanish Catalonia with near total independence and autonomy in the 1930s came close, and the Catalanist sentiment on the Spanish side continues to be stronger than on the French side. Even in Spanish Catalonia, however, informants admitted that trying to preserve local (cultural) livelihoods was a more defensible notion, rather than trying to appeal to some cultural extinction argument by the local Catalan population. In this case, the *political ecology of environmental perception* seems appropriate, if inelegant, as a way to frame the conflicts between local and non-local, between resident and migrant, between Mediterranean and northern European sensibilities and expectations from landscape. However, as Massey (2005) has questioned, is framing all this under a 'localist' banner the best way to engage in local politics?

## Conclusions

As is clear in this set of cases, the Catalan Pyrenees are under new forms of pressure, ones less based on productivist agricultural strategies, and more linked to international leisure economies. Three results of this new geography and political ecology of European speculation are: *a)* new limits to agro-pastoralist territories and grazing areas, *b)* inflated rural real estate, displacing or constraining returning Catalan/French/Spanish villagers, and *c)* land-use and land-cover conversions to a leisure landscape not predicated on tilling, grazing, or burning. The local perception and response to the last set of processes, of increased fallow and shrubby succession stages, is wildly variable depending on context. The seemingly 'tragic' secondary oak growing on abandoned terraces, in local eyes, seems like 'natural' vegetation reflecting a pure form of nature to newcomers and in-migrants to the region.

Certainly, the conflicts and misunderstandings over local communal rights and access to natural resources in montane areas is nothing new to the Pyrenees or the Alps, for that matter. This latest variant of local/non-local displays some new dimensions not seen previously in the Pyrenean communities that battled the early French modernist impulse to nationalize and protect forest resources 'from locals,' in that there is a pan-European sense of change in the region. Although only tenuously linked to what Robbins (2004) has identified as livelihood movements, or 'ecological ethnicity,' locals are increasingly using the argument that their form of (past) livelihoods are a form of identity, one that is crucial for

the preservation of 'cultural heritage.' Unlike marginalized communities in Third World settings, however, this use of livelihood as identity in the Pyrenees may reinforce the very attractiveness of the region to outside in-migrants. Instead of a livelihood as resistance effect, local Pyrenean villages may be producing a livelihood as attractor for continued European interest in real estate and second-home establishment.

Is it not deeply ironic that the same nations that created most aspects of colonialist models and 'modernization theory' never fully completed their task at home? The idea of 'development' for Third World countries was exported well before any agrarian to industrial transition was fully in place in rural regions of these core nation-states. Rural Pyrenean villages long to cling to agriculturally productive landscapes, ones filled with their children and an enduring human imprint and legacy. To do so, they have taken advantage of many of the old French and new European subsidy strategies to keep farmers and pastoralists on the land. Yet new arrivals increasingly apply economic land rent stress in the form of land-use conversions (for instance, agriculture to residential) with highly speculative land values, driving up housing prices, and driving out the very agricultural land-use activities that have given shape and form, if not meaning, to these very same landscapes. How are we to value these places that economic theory has overlooked?

A new form of nostalgic capital is now in place for modernizing rural landscapes, enframing landscapes as fixed 'national past' while not encouraging local opportunities for development considered so crucial in the Third World. There is irony in the process: it is non-local, non-Pyrenean outside residents wishing to preserve this authentic 'past' landscape on both sides of the Franco–Spanish border. And while the fixity of the past is desired by incoming non-locals, the process of maintaining agro-pastoral landscapes, especially in the form of grazing, is less desired by these incoming retirees and leisure seekers. The structure and the details of this new and ambivalent relationship, between locals, newcomers, and the state share parallels with Heatherington's (2010) analysis of park establishment on the island of Sardinia. Newcomers want the end product of the agro-pastoral landscape without the inconvenience of pastoral peoples and flocks crossing their property lines. While the regional, and local, poverty of the Pyrenees does not compare to Third World conditions, this is not a case in the light of political ecology since all sides understand that this is a profoundly political and economic dilemma. Locals pressure their representatives and the Conseil Général in the region to accommodate their livelihoods, and support it economically, if possible. Incoming European leisure seekers do wish to purchase local products in the small villages they inhabit, yet the speculative real estate pressure of their presence tends to exclude local residents from

acquiring property. There is a love for the local *appellation contrôlée* even when those appellations may no longer have the ability to be 'controlled' by locals (Gade 2004). Municipal and regional political authorities answer to both their constituents and the very real presence of tourist economies of scale.

That the French government adopted a *politique de massif* some 20 years ago to counter local under-development highlights the important policy dimensions to these economic changes in the far-flung corners of the Pyrenees. The roles of the state, history, and landscape in the Pyrenees can be parsed out and reduced, yet treating all three conceptual aspects clarifies more specifically how the politics of the Pyrenees is playing out for both local residents, and for incoming EU residents. Pyrenean municipalities and rural communal collectives must somehow continue their agro-pastoral productivity, in balance with the presence of a large tourist and leisure economy, with decreasing structural supports from the European nation-states as integration continues. Instead of a crudely state-based framework for nationalism (Hobsbawm 1990), these micro-political questions throw into relief the disparity of motives used for justifying some aspect of local versus non-local authenticity and derived rights based on cultural citizenship. In other words, should not local Catalan motives for natural resource use take priority over non-local European desires to cordon off or preserve some areas as 'natural reserves' or worse yet, 'private property?'

This localism, then, is less about *national* identity than it is about local rights, access to, and control over the natural resources undergirded by the language of cultural heritage or cultural-national patrimony. In this way, locals have avoided the trap Gellner (1983: 124) called the 'false consciousness' of nationalism, that small groups were appealing to populist culture for national identity but in the process creating 'high culture' in some place-based sense. As minority 'autonomous regions,' areas such as Catalonia in Spain have greater flexibility in designing such rules or restrictions, while on the French side, less comparable autonomy seems possible even if the French national government has loosened some of the centralized reigns for decision-making.

Further work is needed to explore the economic dimensions of this new residential complex within the Pyrenees. What are the local costs of this latest in-migration from northern Europe? What are the benefits to long-term local residents of Catalonia? In rural Catalonia, far from the metropole of Barcelona, European migration from other countries has become the life-blood for maintaining village viability and a local tax base. Pushing further, it is imperative that we engage in more transnational research designs to understand that the local is reshaped not only by local desires and national policies, but by larger world-system

influences. Such an approach would certainly draw political ecology and world-systems theory into closer interaction, as Engel-Di Mauro (2009) has argued. Despite the challenges these new migration fluxes pose to local communities, many small Pyrenean towns are aware of the economic promise of such new residents, even at the risk of re-casting local cultural norms and practices.

## Note

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*Chapter 12*

# Management of Environment and Landscapes in Mountain Areas: Social Representations, Actors, and Institutions in a Regional Natural Park

*Pierre Dérioz*[1]

The system of French regional natural parks (RNPs), initiated in 1967, includes a great diversity of environments—from mountainous littoral, deeply rural, to periurban. The system was created with three distinct and sometimes conflicting missions (Laurens 1997) that constituted an approach similar to 'sustainable development' even before that concept had been invented (Feuvrier 1997): the preservation of natural, historical and cultural heritages; economic development at the local scale; and promotion of tourist and leisure facilities. The relative priority assigned to these missions varied according to legislative or statutory developments until the passage of the 'landscape law' of 1993.[2] Even then, the combination of these three targets, which every charter of RNP expresses in a specific way, varies from park to park.

The state confers the 'RNP' label on a park for a maximum of 12 years (it is renewable) after validating a charter that is signed jointly with the relevant local and territorial authorities. The rules governing the implementation of the charter as a collective 'project for the territory' involve a true agreement with the local actors, especially the elected representatives. To successfully implement the RNP missions, the agreement has to be strong enough to force locals to accept a frame of principles that may contradict their own short-term economic interests, for example, in town planning. Considering that the legal and financial means of RNP institutions are rather weak, many observers have doubts that the parks will be able to carry out their ambitious missions. Several studies are critical of the utopian character of this project of environmental governance (see, for example, Juneau and Bryant 1997,[3] written from a North American point of view).

Nevertheless, since the enactment of the law of 1993—in fact, because of it—the 'RNP' label seems to be attractive again, according to the growing number of recognized RNPs—from 26 in 1993 to 46

today (see Figure 12.1). A new generation of parks has emerged; some are still being developed, like that of the 'Baronnies Provençales,' whose charter has been worked on since December 2004. In the Pyrenees, for instance, the RNP of the Pyrénées Catalanes was created in March 2004, at the end of an eight-year-long process; this was followed by the RNP of the Pyrénées Ariégeoises (May 2009), after about a 10-year process. These two Pyrenean RNPs were among the most recently created RNPs, so while they were in their early years, it is particularly interesting to consider the already long history of the RNP of the Haut-Languedoc, an 'ancient' park not far from them.

The RNP of the Haut-Languedoc covers about 260,000 hectares (ha) in a densely wooded region of high hills and medium-sized mountains, on the southern edge of the Massif Central (see Figure 12.2). Its position of bioclimatic crossing at the meeting of Mediterranean and oceanic influences, contrasts in the orientation of the ground toward the sun (climatic parameter), and the wide range of altitudes (from 150 to 1,200 metres high) provide the park with great ecological wealth and a

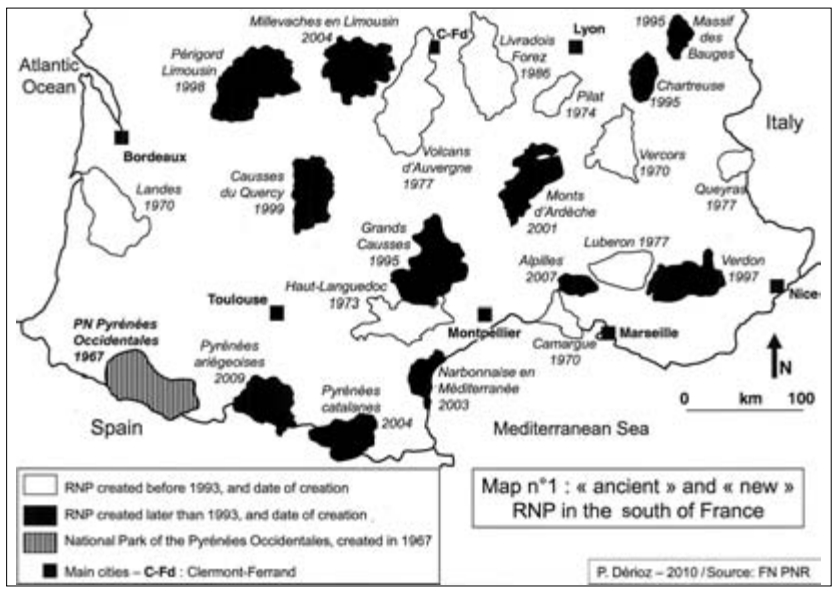


**Figure 12.1** Concerning southern France, this map shows that the creation of the RNP was not achieved in a continuous way: eight among them belong to the first current of the 1970s (1970–1977); then the process slows down (only one park created during the 1980s, the Livradois-Forez), before it starts again thanks to the 'landscape' law of 1993: six more parks appear between 1995 and 1999, then six others since 2000, among which the two first pyrenean RNP.


**Figure 12.2** This map shows the geographic situation of the four RNP mentioned in the chapter. Three among them clearly belong to the hinterland of the regional metropolitan areas (Toulouse, Montpellier, and the other cities of the Roussillon, of the plain of the Aude River, and of the languedocian plain). The RNP of the Narbonnaise en Méditerranée, mainly littoral, is also partly included within a metropolitan area, near Narbonne.

remarkable diversity of landscapes. The geologic constraints are also an important parameter. This diversity also results in many different forms

of land use; some were inherited from traditional agricultural, pastoral, or industrial activities; others arose because of contemporary changes in the local economy and housing conditions. The park's varied facets are generally regarded as an asset, but they also reflect this territory's lack of coherence: Mainly rural, thinly populated (84,500 inhabitants, distributed among 93 communes[4]), it stretches out across two distinct departments (Tarn and Hérault) and two distinct regions (Midi-Pyrénées and Languedoc-Roussillon), with deep differences of culture and traditions—including political ones (Dérioz 1997) (see Figure 12.2).

The research for this chapter is based on an analysis of the landscape's evolution, considered as a synthetic and perceptible expression of the territories as socioeconomic and environmental systems and as a prime indicator for their mutations (Dérioz and Laques 2004). The diachronic study of the ways to consider, preserve, and value the environmental qualities of this area in the last half century spotlights different actors; it also reveals how their strategies and practices are related to some trends that can be observed, more or less at the same time, in most of the neighbouring hinterlands such as Cévennes, Corbières, or the Pyrenees. The park of Haut-Languedoc does not possess any high mountains, but its evolution shows numerous common features with the *ariègeoises* valleys of Couserans and of Vicdessos for its oceanic part, and with Haut Conflent for its Mediterranean part. With similar constraints because of steep slopes, isolation, and agriculturally fragmented areas, there are the same effects of rural decline in the second half of the 20th century. The decline can be seen in the abandonment of many fields, orchards, vineyards, meadows, and pastures and in the concomitant afforestation, which stems from spontaneous ecological processes or from reafforestation (Bécat 1977; Carré 2010). Among these common mutations, the development—in many forms[5]—of tourism and recreational activities must be especially stressed, along with the varied political reorganizations of local territories, on different scales, in relation with several national laws of major importance.

Three distinct periods can be seen in the Haut-Languedoc evolution. In the first phase, at the beginning of the second half of the 20th century, in a context of crisis of traditional rural activities—depopulation and tourism-oriented development—the state, its administrators, and its agencies were the main protagonists in space management, equipment, and protection. Not until the creation of the RNP, at the beginning of 1970s, as the demographic decline was stabilising or reversing itself, did local communities start to take more interest in preserving their landscape quality and ecological heritage. This led to a general interest in local development combined with a respect of natural resources, which can be considered the second period. But 36 years after its creation, the effects of park results may appear rather slight. Compared with the original

objectives, the modesty of the financial, juridical, and political means that have been mobilized have not given local actors enough means to really influence the landscape's evolution. In what is now the third phase, the weight of the departmental council's[6] strategic level has clearly taken advantage of the relative political weakness of the newly created territorial units, which stem from the successive forms of intercommunal associations and from the state's disengagement. At the departmental level, the Haut-Languedoc appears now as a mountainous and woody hinterland, more and more integrated into the global functioning of the proximate metropolitan areas (such as Montpellier and Toulouse) as a kind of recreational and residential periphery.

The same developments also took place in most of the proximate mountain hinterlands, with some chronological nuances. In the central part of the French Pyrenees, for example, there has been a large national park since 1967. It covers about 46,000 ha, but it took some time before the population and the elected representatives of the Pyrenean local communities showed any interest in the concept of an RNP, which was created that year. As we have just seen, the creation of both Pyrenean RNPs dates to the 2000s. In this particular case, the delay was linked partly to the rivalries between local communities, sometimes long-held, and partly to the spatial fragmentation of the territories, which probably slowed down intermunicipal integration.[7] There was also strong local opposition against the National Park of the Occidental Pyrenees itself throughout its history (Duran 1993) and a negative view of park as institutions recognized by the state and dedicated to environmental protection. There was the same kind of distrust when the RNP of the Haut-Languedoc was created, 30 years before the first RNP of the Pyrenees and in a context very different from the current one.

## The Haut-Languedoc between crisis and state policies of land management and protection of natural resources (1950–1960)

Between 1945 and 1975, in a period of continuous economic growth for the country as a whole (the so-called *Trente Glorieuses*), the Haut-Languedoc was one of the regional spaces left behind, affected by agricultural desertion, economic and social decline, and global marginalization. The demographic maximum is far behind, often dating back to the second part of the 19th century, especially in the valleys where small mixed and stock farming was combined with industrial employment. At the beginning of the 1950s, the symptoms of crisis were rampant: large deficits, deteriorating natural environments, general aging of the population,

and sometimes unbalanced sex ratios (surplus of men) with increasing forced celibacy for men.

The effects of the rural depopulation that principally affected young people from farmers', worker-farmers', or miner-farmers' families can be observed early in the landscapes. Hamlets and isolated farms, in the most difficult areas of the Montagne Noire, the deep valleys of the massif of the Caroux, or the Espinouse plateau fell to ruins, surrounded by rings of abandoned fields and pastures that gradually become fallow lands. At the same time, the extensive grazing lands on the slopes were colonized by heath-type vegetation (calluna, heather, bracken, broom, gorse, and so on), and often burnt down from spectacular bush fires lasting several days, mainly on the Mediterranean side. Most of the chestnut plantations, less profitable than other kinds of orchards and vineyards, often difficult to access, and partly destroyed by diseases from the end of the 1960s (Dérioz 1994). As their average age slowly increased, the remaining farmers took advantage of the general reduction of the number of the farms to restructure and widen their own holdings, but only on lands showing the best agronomic qualities.

This rough sketch needs to be nuanced. Some islets of relative agricultural prosperity remain. For example, the Minervois and Saint-Chinian's vineyards began moving toward quality products; large or medium-sized farming concerns of the plain of Castres already belong to the agricultural model of the Lauragais plain; and the stock farms of the 'Mountain', around Lacaune and La-Salvetat-sur-Agout, within the radius of milk collection produce Roquefort cheese. These are not enough, however, to counterbalance the main trend of the area toward population depletion and the fragmentation of the spaces still maintained by agriculture and stock farming in favour of extension of fallow lands and heaths and, above all, of reforestation. New forestry programs aroused so much interest during the 1960s that land prices escalated and large tracts of land were confiscated in places such as Somail, Espinouse, and Mounts of Lacaune. The reforestation, which uses mainly coniferous trees, was initiated during the interwar years. It increased in the 1950s and 1960s because of several things such as the proceeds from the National Forest Fund and a 30-year exoneration of land taxes on new plantations. Parts of these new forests were planted by private owners (mostly aged farmers with no one to take over their farming concerns, who chose to partly or completely reforest their lands), by big industrial families from neighbouring cities (e.g., Mazamet, Castres) who decided to plant trees on lands that they had used until then to rent to sharecroppers or tenant farmers, and by some institutional investors (e.g., banks, insurance companies) who participated in forestry pools.[8]

The financial incentives and most of the forestry models, however, came first and foremost from the state, with several agencies in charge of distinct missions in the field. An important part of these reforestation operations was conducted by the Water and Forestry Commission and from 1964 on by the National Forestry Service on state-owned lands.[9] The reforested lands were extended piece by piece by the purchase of large abandoned homesteads and from former communal tracts sold to the state by many municipalities to be planted with trees (state forests of the Somail, of the Espinouse, of the Montagne Noire, of the Avant-Monts, and so forth). Most municipalities also delegated the task of managing their own plantations to the National Forestry Service, considered by the municipal councils as the only possible way to take advantage of their former communal tracts deserted by the herds. However, all these new 'communal forests' of variable extension are not of the same economic value. Often organized in *syndicats intercommunaux*[10] for electrification or water supply, the communes needed the financial and the technical support of the state agencies, especially DDAF and DDE[11], to develop and modernize their areas, extend electric and water supplies and then phone networks, improve the roads or the collective sanitation of the villages and main hamlets, and so on.

More or less at the same time, in the late 1950s and the early 1960s, EDF.[12] built several hydroelectrical dams in the Haut-Languedoc to rationalise and expand the use of natural resources.[13] This was a national enterprize and it was aimed at making the best possible use of each part of the potential of the territory, the hydraulic flows, and the altitude differentials as well as the ligneous productivities. In a series of interviews conducted in the late 1980s, several mayors and town councillors of the Jaur Valley said how shocked they had been when the state representative, during a land management meeting organized by the DDAF, circled in red a large part of the *hauts-cantons*[14] of western Hérault, saying—somewhat provocatively—that the whole area would, in the medium term, be entirely devoted to forestry, with very few of its inhabitants left.

It is not surprising, then, that the state took charge of protecting natural resources, especially in zones of exceptional interest, where scientific literature along with well-established tourist traditions (often dating back to the end of 19th century) seemed to warrant it. In the Tarn Department, the project of a natural park of the Sidobre (1963) (Massol 1991) came from the subprefect Cecil Mullens. His objective was to preserve the numerous outcroppings of granite rocks (tors) amongst which the most remarkable were already registered or classified at the departmental inventory since the first half of the 20th century. This project echoes another one, formulated as far back as 1950, for the massif

of the Caroux (Hérault) by Jean Prioton, the departmental keeper of the Water and Forestry Commission. Even if his project to create a national park of the Caroux was just a personal idea, the forestry concepts he developed clearly show the dualistic approach of environmental management by public authority (Prioton 1959). Along with the main objectives of productivity and profitability that must generally prevail in most areas, he suggested implementing locally—where the quality of natural heritage and tourism justify it—'forestry aesthetics that border on the art of landscape gardening', and 'determines some special rhythms for the forestry': to keep open spaces covered by heathlands; to ensure interesting viewpoints; or to plant ornamental conifers and deciduous varieties of trees in order to 'break the monotony of beech groves'. The introduction of some mouflons from Corsica in the Caroux, between 1956 and 1960, were the last part of this process, which tended to create a diverse, attractive, and spectacular 'wilderness' in a deeply deserted massif where the state, considering the extension of its own land, played the leading role (Dérioz and Grillo 2006). Both the existing natural game and wildlife national reserve,[15] which evolved from the government reserve created in 1956, and the strict biological reserve of the Gorges d'Héric, whose limits were established in 1933 by Max Nègre, another departmental keeper of the Water and Forestry Commission, were created on state domains.

Even if the national park that had been planned was never created, this project is the only one in the hinterland discussed in the reports of the Mission Racine, which was in charge of the general planning for the seashore tourist management at the same period. This shows the original intimate link between public initiative in terms of nature conservation and tourist development. Tourists first came to the Haut-Languedoc at the end of the 19th century for day trips. Visitors from neighbouring cities—or from the little towns of the area—were attracted by the natural sights and scenic places. As far back as 1905, the *Guide of the Sidobre*, written by De Nauzières, indexes spots that are beautiful, describes the scenic routes, and establishes the cultural codes for visiting the granite tors of the Sidobre and their spectacular rock chaos for day trippers from Castres or Mazamet (Bertrand 1978). The same year, the author of the *Dictionnaire géographique et itinéraire general de la France*,[16] Alphonse Joanne, depicts the waterfalls of the Saut de Vesoles in his *Guide of the Hérault Department*, integrating them in the regional tourist geography:

> The most remarkable waterfalls of the Hérault department is the Saut de Vesoles, generated by the Bureau stream that falls down by a succession of six cascades from the heights of the Saumail to the surroundings of

> the hamlet of Langlade, where it is lost of sight among the trees. These waterfalls offer a delightful spectacle during the big autumn rains, and in the winter, when the big frosts turn the waters into huge ice blocks. (Joanne 1905: 34)

Stimulated and structured by guides, tourism is organized and made easier by various public facilities, which are sometimes set up by the tourist organizations themselves, such as the panoramic table of the Caroux, built by the Touring Club of France in 1933, or the many hiking trails and climbing ways, opened, described, and marked by the French Alpine Club (section of Béziers). Here again, the state's role is still prominent: It protects by restricting activities in and uses of places of interest—the rocks of the Sidobre from 1912 and 1922, then later the Gorges d'Héric (1934)—or by management, as around the Saut de Vesoles, where a 'scenic trail' and a scenic view, constructed during the interwar years by the Water and Forestry Commission, allowed a wider outlook (Béringuier et al. 2005).

In the 1950s–1960s, tourism continued to increase, mixing a taste for picturesqueness and scientific interest for the 'natural' character of the environment with a growing amount of outdoor sports in the wilderness (Bourdeau 2008)—hiking, climbing, or speleology. In the massif of the Caroux, along with walkers on the tourist track at the bottom of the Gorges d'Héric, were hikers, climbers, and scientists attracted by the ecological and geological value of a mountainous area that also offers real challenges in terms of sport (great variations in height, steep slopes, long treks, and so on).[17] A group of scientists and nature lovers founded the 'Friends of the Caroux' in 1952, which took an active part in the 'Association for the National Park of the Caroux' beginning in 1958 (Massol 1991); it was presided over by Paul Marres, a well-known geographer from Montpellier.

But along with an interest in the territory exhibited in these various activities—speleology (spelunking) in the Avant-Monts, climbing in the Caroux, mushroom picking in the Espinouse—was a marked indifference toward the rural population of the Haut-Languedoc and its activities. This lack of consideration for the local people can be seen, for instance, in the common practice of tourists picking, according to the season, cherries or chestnuts on the way back to their locales. The coveted wild landscapes are, in fact, those that result from rural decline: They are liberated by desertion and by the regression of agropastoral activities for new kinds of use. Rural landscapes still structured by these activities do not capture the same attention, however. In the Sidobre, tourists' indifference toward the local inhabitants—not to say contempt—tends to turn to hostility when the exploitation of the

granite quarries by local entrepreneurs seems to threaten some famous spots (Bertrand 1978).

## Local development and nature protection: Two missions of uncertain compatibility for the regional natural park of the Haut-Languedoc (1970–1980)

With the superimposition of the new lakes created by the dams built at the end of the 1950s and the general improvement in the standard of living and democratization of access to summer holidays (Corbin 1995; Rauch 1996)—described as a 'kind of summer revolution' by historian A. Prost (1987)—residential tourism developed side by side with the original tourism of excursion and nature discovery. The first owners of secondary residences, the campers from camping sites, and the children in summer camps found themselves together, sharing the few beaches of the lake of La Raviège, next to La-Salvetat-sur-Agout, or the banks of the wilder lake of Vesoles (even though the majesty of the waterfalls downstream was spoilt by the reduction of the flow since the building of the dam in 1956). The exchanges between residing visitors and local people also made many think that tourism might offer an economic solution to the rural crisis. This was not too difficult to deal with because some of the vacationers were natives coming back to visit their families during the holidays.

Moreover, the decree of 1 March 1967, which instituted the RNPs in France, considers recreational activities as the first objective for the future charters of these new territorial entities: The RNPs are conceived first of all as 'territori(es) (. . .) of a particular interest (. . .) for people's relaxing and resting as well as tourism'; even if this interest is based on 'the quality of (their) natural and cultural heritage', which must be preserved, their 'aptitude to receive people from large cities' is, as well as the 'quality of the sights', among the criteria for the evaluation of parks' creation demands by the interministerial commission (Article 4). As we just saw, nature and landscape protection are not the priority objectives in the first years of existence of these new kinds of territories, whose first legal basis was later established by the 7 January 1983 act. One has to wait until April 1988, when the third decree about RNP was signed, to find environmental issues given first priority. (The second decree [October 1975], stressed instead the role of the RNP for revitalization, management, and animation of the rural areas in crisis [Merlin 2002].)

Created in June 1972 by a departmental order,[18] the RNP of the Haut-Languedoc belongs to the first generation of the RNPs, and the first article of its charter clearly reflects this primacy of the economic and social objectives constituted of:

> landscapes fabricated by centuries of labour, then abandoned little by little, these lands of the Haut-Languedoc, by mutual agreement, are going to permit the relaxing of the inhabitants of the languedocian metropolis and of the visitors of the Languedoc-Roussillon coast, for a relaxing leisure, a salutary contact with nature and an enrichment of the mind. They represent in that way an active element of the regional planning of Languedoc-Roussillon and Midi-Pyrénées, while developing their own craft activities, farming and forestry. (Parc Naturel Régional du Haut-Languedoc 1973)

The purpose is to realize 'at the same time' 'the valorization of a natural and historical heritage that (the municipalities) engage themselves to protect', 'the renewal of the traditional economy and the development of the craft and receptive activities.'

For many communes of the territory, the park's creation in the early 1970s coincided with the lowest point of the demographic curve and a deep crisis. Nevertheless, it aroused some suspicion in the local people and elected representatives. The project was essentially carried out by a few departmental councillors and the sub-prefectures of the two departments (Tarn and Hérault); many inhabitants interpreted it in reference to the national parks of the previous decade, as a 'top-down' project, possibly presenting some risks of territorial dispossession or at least some threats to their freedom of action. Those in the Hérault Department, for its part, were more concerned about possible restrictions that the park's creation could cause in real-estate regulations—spatial restrictions and architectural constraints—but above all, they were also concerned about restrictions on hunting. Considering that the charter of the future park cannot be legally opposed and therefore does not exactly have a force of law, these fears do not seem fully justified. Nevertheless, they show the depth of the social withdrawal generated by economic and demographic decline, which makes the spreading of rumours easier. One rumour, for instance, recorded in the Haut-Languedoc and in some other areas experiencing the same deterioration, was that vipers would be released by helicopters to protect the young plantations of conifers against the devastation caused by rodents. The same story was also heard in the Tarn Department, where the main suspicion appeared to be, for the communes of the Sidobre, the fear of not being able to exploit the granite quarries because of the provisions of the charter devoted to protecting sites. Along with a few communes of the Hérault Department, some of which partly belonged to the massif of the Caroux, most of the municipalities of the Sidobre refused to sign the first charter and join the park.

So, far from being supported by a strong local dynamic, as is the case today with the new RNPs of the Pyrénées Ariégeoises or of the

Pyrénées Catalanes, the RNP of the Haut-Languedoc from the onset had to face the cautiousness—sometimes even hostility—of the local communities, despite a charter that insisted much more on the necessity of a local development based on tourism, farming, and forestry than on nature conservation. This lack of confidence and local acceptance of the RNP, present from the beginning and still noticeable today, is obviously the first cause of its institutional weakness. However, it was often overshadowed by later political imbroglios: The two regional authorities of Languedoc-Roussillon and of Midi-Pyrénées were not included in the 1973 statutes or in the initial composition of the mixed syndicate that manages the park.[19] Later, they participated for a while in its functioning, including financial aspects, before withdrawing from managing and financing of the park at the end of the 1980s, essentially for political reasons (the conflict between the regional councils under a right-wing presidency and the departmental councils under a left-wing presidency, especially acrimonious in Languedoc-Roussillon). The park's existence was threatened by this serious political dysfunctioning, when, in the early 1990s, the revision process of the charter was frozen, along with the state's financial support, thus reinforcing the already paramount role of the departmental councils (Dérioz 1997).

Faced with extensive territory that lacked inner cohesion, insufficiently supported and defended by local actors, paralysed for a long time by the political conflict between regions and departments, the RNP of the Haut-Languedoc never marshalled the juridical, financial, and political clout necessary to fulfill the ambitions of its charter. However, the balance sheet of the actions initiated by the park is far from insignificant. It can be seen in a list of its achievements in terms of floral and faunal scientific inventories (inventory of peat bogs and wet lands [1991] and of avifauna [2001]), or in terms of aid to local development processes, including its participation in the agroenvironmental local actions; its management of a collective program of creation of labelized tourist accommodations; its intervention in the marking of several hiking trails and discovery paths; or in the organization of the 'fairs of the park'. However, the fact that most of these actions were undertaken in association with other partners often makes the part effectively taken by the park less obvious and tends to obfuscate some of its results. Indeed, in terms of preservation of environment and landscapes, the concrete effects of its action remain limited. During this period, the different state services mostly maintained their dominance. In the case of the emblematic massif of the Caroux, for instance, the management of the natural hunting and wildlife national reserve, created in 1973 at the same time as the park, is jointly committed to the National Forestry Service and to the National Hunting Board,[20] under the control of a Director Committee

that also includes the General Direction of Nature and Environment Protection, the Departmental Direction for Agriculture and Forestry, and the Departmental Hunting Federation (Massol 1991).

Except for these few protected areas, management strategies still aim at profitability and economic development: The National Forestry Service still plants trees—mainly conifers—in the heathlands whenever feasible; the DDAF follows the same technical patterns in support brought to farmers or communes wanting to reforest some fallow lands or some 'unproductive heathlands', sometimes encouraging joint forestry pools that create more rational management units. Farmers of the plateau of the Somail or the basin of Anglès, who planned to drain boggy tracts of land, also receive subsidies and technical backing, at the same time that the park is urging conservation of wetlands and their biological wealth. Even the special interest in protecting karstic areas, specifically registered in the charter of 1973 (Article 19), is completely powerless against the growing rubbish dump directly in contact with the primary lime stones table from which springs the Jaur, right in the center of Saint-Pons-de-Thomières, the very town chosen for park administration headquarters.[21]

Throughout the 1970s and the 1980s, the process of agricultural decline continued unabated (Dérioz 1994) or even accelerated by the aging of the farmers and, on the Mediterranean side, by the European Community grants for the uprooting of vineyards—except for the guaranteed vintage zones. The intensity of this decline, however, varied or even took paradoxical forms: Some practices were continued; tracts were temporarily or partly taken over; unproductive plots were still maintained; or land was rented between private individuals by simple oral agreement, tending to make the process last much longer. In the vineyards of *appellation d'origine contrôlée*[22] (Saint-Chinian, Minervois), abandonment of lands unsuitable for vine-growing or of lands owned by retired vine growers or their heirs and not yet put on sale, coincided with the clearing of patches of garrigue to plant new vineyards, a choice dictated by the market orientation toward quality wines. Where abandonment occurred early with particular intensity, such as the central part of the Avant-Monts, for instance, the extent of land liberated by the rural depopulation maked the settling in of new farmers easier: Even if the settlement of these new inhabitants is often precarious and not always long-lasting, the phenomenon is real. Their lack of financial means, as well as the cultural or mental representations shared by these peoples about nature and their rural way of life, led them to elaborate new agropastoral models and turned them more widely toward extensive grazing and restricted use of chemicals, then later experimenting in organic farming (Dérioz 1994).

Despite the complex network of interpersonal relationships between the newcomers and the native population, the cultural rift between them often remained wide. It was not wide enough, however, to hide the major change for local society at the end of the 1970s: The reversal of the demographic trends after decades of decline, sometimes even where the fallow lands are still gaining ground. If the weight of the high mortality rates generated by the general aging of the population during the previous decades still resulted in negative natural balances, the migratory balances gradually turned positive, thanks to the in-migration of relatively young retired people and households of active people working in the small towns of the Haut-Languedoc (in the medical and paramedical sectors around Lamalou-les-Bains, for example) or neighbouring towns (Béziers, Castres, and the like). This renewed attraction of the hinterland, part of the 'rural renaissance' described by Bernard Kayser (1990), is also attested by the explosive number of second homes, which are now more than 50% of the total housing around the Caroux, in the Avant-Monts, or on the 'Plateau des lacs' (65% of the total housing for the 'Community of Communes of the Mountain of the High-Languedoc', which includes eight communes around La-Salvetat-sur-Agout).

This demographic change is closely linked to spectacular urban growth at the same time in the Languedocian plain (Montpellier) as well as in the Toulouse region. The gradual improvement of the road network between these growing metropolitan areas and the territory of the regional natural park played a major role in facilitating the park's integration as a full-nature leisure area that could be reached conveniently by car for a weekend or an occasional half-day for picking mushrooms in forests, as well as being a place of residence in a preserved environment not too far from main urban centres.

## From a marginalized rural hinterland to an integrated leisure periphery: Current representations of nature and levels of the territorial intervention in Haut-Languedoc (1990–2000)

Approved by decree in July 1999, after months of political dealings between the two departmental councils and the two regional councils, the renewed charter of the RNP of the Haut-Languedoc integrated new prerogatives instituted by the 'landscape law' of 1993. Specifically among these were that the master plans and other town-planning documents had to be in accordance with the charter of the park and the notion of 'sustainable development' formulated by the Rio Conference (1992). More ambitious and more detailed than the 1973 document, the 1999 charter resolutely placed the preservation and the 'sustainable

management' of the natural, landscape, and cultural heritage at the head of its 'project for the territory' (Chapter One) and considered 'the environmental excellence (as) the mainspring of the economic project', especially regarding agriculture, forestry, and tourism (Chapter Two). A new approach was chosen to prepare and implement the charter, based on broader participation of local actors. It was especially visible in the efforts made to convince the communes of the Sidobre to adopt the charter and to reintegrate the collective functioning of the park as well as to establish relations with the entrepreneurs of the granite quarries. Whereas the attempt to register the whole Sidobre to the departmental inventory of places of interest caused strong opposition in 1970 between the protectors of nature and the quarry owners (Bertrand 1978), the 1999 charter recognized without any ambiguity 'the place of the granite economic sector' and its importance in the park's heritage; at the same time, it involved the park by the side of the entrepreneurs to seek environmental 'good practices'. This concerted action was supposed to lead to a 'Sidobre quality charter', with positive economic and commercial side-effects (the eco-certification was also supposed to be a selling point). The elaboration by the park of a Territorial Reference Scheme for Aeolian Energy (2004) was in keeping with this general pattern of concerted actions to support and supervise development of different economic activities, and, simultaneously, encouraged to preserve and respect the natural and architectural heritage.

But good intentions, to be implemented, require a common political will and some budgetary leverage. Soon after the adoption of the new charter and the regional elections of 2000, the RNP of the Haut-Languedoc weathered another period of four years of open political conflict between the Languedoc-Roussillon region and the three other partners—the Midi-Pyrénées region having shifted to the left. The energy and momentum gained while preparing the new charter thanks to a participative approach disintegrated in this conflict. After the very politically significant election of a new president (January 2005) who was also, among other things, a deputy at the Assemblée Nationale and the first vice-chairman of the Departmental Council of the Hérault Department, many people living in the park are once again full of doubts as to the park's real position, usefulness, and legitimacy. The municipal councils of the communes that are members of the park are still looking for the same kind of remedies they sought since the park began. The park appears to them as a source of problems more than as an effective partner, for instance, when they are confronted each year with the budgetary efforts required to implement the expensive policy of waste water treatment prescribed by the *loi sur l'eau*[23] of 1992 (although the beneficial effects for the rivers of the new wastewater treatment plants

are quite apparent). They are aware of the meaning of the RNP label for the image of the territory, but they question the park's role, as if it were an independent entity, without considering that each commune is part of its political functioning and of the decision-making process within it. The process of renewal of the label and revision of the 1999 charter has been going on since 2007. Two years of extra time (until 2011) were granted because of the rather critical evaluation concerning the draft of the new charter project by the competent regional and national authorities. The current project lacks the active dynamics of dialogue with the social actors and lofty environmental ambitions of 1999, which were due to the resoluteness and convictions shared by the park's director and the park's president at that time. The new charter seems rather timid compared to the objectives of the previous one, and the renewal of the label is today far from certain.

The current loss of interest in the park among many municipalities is all the more noticeable now that new territorial entities have arisen in the meantime. The association of several communes inside the 'communities of communes' instituted by the law 'ATR'[24] (1992) has given birth to new intercommunal territories, whose size are now stable and often correspond to the scale of a *canton*. As they tend to become the main level for public action, with a real capacity for spatial management and development, they integrate into their master plans the value of the natural and landscape heritage in diagnosing and protecting or evaluating a program of action. This is the case, for example, of the Director Scheme (2001) of the Community of Communes of the Mountain of the Haut-Languedoc, quoted above: The document lists interventions to clear landscapes overgrown by bushes or trees or to preserve the wetlands' ecosystems. That these communities of communes are often presided over by departmental councillors makes the implementation of the projects easier, because the progressive transfers of public missions and of financial means, implied by the decentralization laws of 1982 and 1983, have reinforced the political and budgetary clout of the departments, concurrently with the weakening presence of the state agencies in the field.

In fact, although these agencies are still the guarantors of the law of the Republic, they tend to become more advisors whose local communities pay for services when they need them. However, the implementation of town-planning projects is no longer carried out by the Departmental Direction for Agriculture and Forestry, nor is the management of the departmental roads—even an increasing number of national roads—the direct prerogative of the Departmental Direction of Equipment. Since January 2010 in both departments, these two groups have been merged within a Departmental Direction of Territories (DDT).[25] This

disengagement is also obvious in environmental management and the public's reception in these settings. The natural game and wildlife national reserve of the Caroux, in which the National Hunting Board does not even have enough financial means to keep a permanent employee, represents a revealing example of this evolution. The National Forestry Service itself, now bound by strict obligations of profitability, has difficulties in managing the reserve alone. Local implementation of 'Natura 2000,' which concerns several places in the park (Caroux, Minervois, Arn Valley, and so on), has also experienced delays and is sometimes applied to unsuitable territories because of the successive restrictions of their surfaces. In the Massif of the Caroux, the proceedings have been concentrated only on state lands to avoid conflict, especially with the hunting societies, and without much attention paid to the ecological unity of the massif by using this way of demarcating the administrative perimeter.

The state's disengagement, as well as the park's weakness, leaves an important gap, which the policies of the departments and of the regions are not able to fill even if environmental matters are within their jurisdictions. The environment does not constitute a major portion in their budgets for 2007. It is about 4% in the Languedoc-Roussillon region and more or less the same in the Hérault Department—but in the latter, a large part of the environment budget is devoted to the research of new water supply resources. In the departments, these questions are, in fact, partly linked to the use of the funds coming from the TDENS (Taxe Départementale des Espaces Naturels Sensibles[26]) and to the reception of the public in areas that are both protected and dedicated to recreational functions. Today, thanks to this tax, most of the places acquired by the Hérault Department are open to the public and connected together by a network of hiking trails. In 2005, an advertising campaign of the Departmental Council proclaimed 'Hérault is a big stadium', with a picture showing a red plastic stadium seat in the foreground facing a background of hills covered with green oaks. The message could not be clearer: Natural areas of the hinterland have to be the peripheral 'green' belt and leisure zone for urbanites coming from the metropolized plain (IFEN 2003) to a department that has gone from 648,000 inhabitants in the last 30 years (beginning in 1975) to one million (in 2006), where more than 1,000 new inhabitants settle each month—mainly in urban areas—and which ranks third on the national scale for tourist visits.

In such a perspective, protection of the environment and tourist (or leisure) activities in the protected areas tend to become indivisible. This is clearly highlighted, for instance, by the second strategic orientation of the charter of the 'Pays Haut-Languedoc et Vignobles,'[27] entitled 'A will to improve and to preserve the natural environment and the cultural heritage,'[28] yet linking the protection of nature to ecotourism, and

recommending to 'work' on the architectural heritage as if it were 'a means of attraction in the new tourist markets.'[29] How precisely the economic feedback of the tourist development, mainly analysed in terms of job creation and income for local firms and territories, may contribute to preserving the environment and of the landscape is never clearly specified but remains implied. In any case, for any kind of social actors and on whatever territorial scale—communes, communities of communes, park, *pays*, department, region—the political, technical, and financial means do not seem equal to the stakes, which are primarily all connected in Haut-Languedoc with the inexorable progression of the forest and the consequences of residential growth.

The private and public afforestations are now marking time. But with a forest rate of over 70% for the whole territory of the park, spontaneous afforestations continue colonising the ancient farmlands and pasture lands at various speeds: On the slopes of the valleys of the Jaur and the Orb, the heathlands generated by decades of sheep grazing are slowly disappearing under coppices of green oaks, a little thicker every year, like a good number of peat bogs and wetlands of the Somail and the Espinouse, overgrown and progressively dried by the willows. Black and sylvester pines are similarly covering mountainous moors, especially in the Caroux, where, in a short while, landscapes may lose much of their diversity and open spaces: The mouflons are already running short of grass resources in this massif where the rate of the ligneous vegetation (shrubs and woods) has increased from 30% to 60% of the whole area in the last half century. The investments for the management of the environment and the landscapes that have taken place in the Caroux were particularly important: They were devoted to eliminating the willows in the communal peat-bog of the commune of Rosis, to the ground clearance in several areas by the Ecological and Cynegetic Group of Interests (GIEC),[30] which manages the 'tourist' mouflon hunting, or to a few pastoral experiments supported by the state and the European Union (Dérioz and Grillo 2006). But these interventions concern at most 160 hectares, about 1% of the whole area frequented by the mouflons at present. The spontaneous extension of the woodlands ironically combines with the creation of a lot of new tracks—to fight forest fires, to convey timber—opening up the space, especially for motor-engines (4X4, motorbikes, quads, and the like), whilst the wide vistas and panoramas tend to disappear.

Combined with the tourist attractiveness of which the label 'regional natural park' is one of the components, the continual integration of the Haut-Languedoc in the regional process of metropolization leads to increased real estate pressure near the villages and to a rocketing of the prices of buildings and land—until the slowdown because of the financial crisis of 2008. This generated speculative fever among landowners,

most marked in the Hérault Department, and the acceleration of two processes: first, the transfer of property to newly arrived inhabitants, generally rather well heeled and often from northern Europe and then, the requirement for municipalities to find enough new land on which to build individual houses desired by new residents or local young households. This last phenomenon often involved using good farmland in the valleys or on the lower part of their slopes, when there was no town-planning document or where it was too lax—or too flexibly interpreted (Dérioz et al. 2009). Very much like standard suburban houses, the new buildings frequently tend to spoil the general look of the village surroundings, whilst the old village centres often decline, with tumble-down or closed houses.

However slowly the inherited landscapes may change, spontaneous afforestation, new buildings, and other developments (broadening of roads, commercial areas, aeolian setting up) all contribute to the gradual fading of the ancient characteristics of traditional agro-pastoral activities. These processes, which lead to a standardization of the landscape, are not the same everywhere in the park: The deep decay of the rural landscape of the Jaur Valley, for instance, is very different than the stronger resistance of the vineyards around the historical village of Minerve. The latter is due to the profitability of the vine-growing and perhaps also because of a growing consciousness of the economic connections between the quality of the products and the quality of the landscape.

Another paradox of the current evolutions of the Haut-Languedoc is the trend toward private appropriation of the land, which is somewhat against development of tourist activities. Ancient practices such as irrigation or grazing coincided with collective land-use traditions, and, later on, the main period of agricultural decline offered here and there large areas of apparently 'available' lands to the neo-rural farmers. But the settlement of the new purchasers, as well as the defensive reactions of the natives against the increasing number of visitors, frequently generate fences, enclosures, and 'no trespassing' signs that show without ambiguity the assertion of private holdings. This phenomenon (quite widespread in the *garrigues* of the northern area of the Montpellier agglomeration) is associated with the different kinds of competition between social actors brought by a wider multi-use of nature and is now reaching the hinterland as more evidence of its integration in the metropolitan regional area. In addition to the environmental and landscape subjects, the capacity of the Haut-Languedoc to exist as a territory for itself, and not only as a kind of distant 'green belt' for the growing urban centres of the region, will be a major issue in the difficult process of renewal of the park's charter (2010–2011).

To conclude, there is a wide gap between the widespread speech about environment and landscape protection as a basis for economic development, the reality of the management policies, and the main trends observed all over the territory concerning both architectural and ecologic changes. This gap is not specific to the ancient problematic park of the Haut-Languedoc, and one may find paradoxes of the same kind in both new Pyrenean RNPs. The cirque de Cagateille, for example, is one of the most famous natural sites of the RNP of the Pyrénées Ariègeoises, which was classified in 1993 to prevent a planned extension of the skiing area of the ski resort of Guzet-Neige. Its current evolution, however, shows the weight of the so-called economic stakes compared with those of the conservation of ecosystems and landscapes and, at the same time, the mobility of these ecosystems and landscapes under the influence of the ecological dynamics. Because of the reduction of the average number of avalanches on the walls of the cirque, and because of a lower grazing pressure in its bottom, the landscape is gradually affected by the return and growth of the forest (Milian 2007). At the same time, tourist pressure remains strong close to the cirque. There has been resumption of the ski resort by a private operator (a subsidiary of the Lyonnaise des Eaux, Altiservice), extension of its skiing area, new snow blowers, and an increase in accommodation capacity in two years (2007–2009) from 2,800 to 3,350 beds due to the building of new holiday residences. There are similar tensions around French Cerdagne (Bachimon et al. 2009). On the one hand, there is a will to protect the natural heritage (high mountains and rural landscapes), which the creation of the RNP of Pyrénées Catalanes is supposed to illustrate. On the other hand, ski resorts such as Font-Romeu have made heavy investments in equipment and development associated with the residential explosion on the plateau of Cerdagne that marks the integration of this territory into a large regional system, organized by the urban poles of Barcelona, Toulouse, and Montpellier. Considering these two processes, agricultural and pastoral activities are uncertain in the near future. Although they have already abandoned the strongest slopes to bushes and forests and given fields or pastures near the villages as building lands for second homes, cattle breeders still manage a large part of the landscape. However, they have to face, among other problems, the general increase of water needs in summer, which makes their traditional practice of flooding meadows look like a waste of water resources.

These examples illustrate the complexity of the arbitrations between conservation and exploitation of the natural areas in the mountain territories, especially in the uncertain and shifting contexts of climate change and socioeconomic crises that show up in successive jolts. Of

course, parks are not without assets in the search for a good balance between projects of development, visits by the public, and, for instance, the setting up of the *trame verte et bleue*[31] included in the environmental Act 'Grenelle 2,' adopted 11 May 2010 by the French parliament, or the realization of the documents of objectives (DOCOB) for the sites registered in the European network 'Natura 2000.' In their analysis of the action of the RNP of the Narbonnaise en Méditerranée, a mainly littoral territory next to the three parks studied in this chapter, V. Andreu-Boussut and C. Choblet (2006) remind us that a park needs a collectively recognized legitimacy to be in position to play its part as a 'territorial mediator.' They consider that this legitimacy is indispensable to the collective construction of 'an original culture of the action facilitating partnerships in a climate of relative mutual confidence'. The Haut-Languedoc shows how much lack of inner cohesion of a park's territory is prejudicial to the efficiency of its action. It also emphasizes the decisive part played by the mayors (Milian 2010) and the main elected representatives of the park.[32] They may deprive the park of the political authority necessary to lead any kind of negotiations with the social actors if their agreement with the principles of the charter is only superficial and if they do not support—or trust—the institution enough.

## Notes

1. Géographe, Unité ESPACE S140—IRD, MDT Montpellier—UFR Lettres et des Sciences Humaines, Université d'Avignon et des Pays de Vaucluse. All my thanks to Clare Burnford and Jean Dérioz for their attentive second reading of the text in English.
2. Adopted on 8 January 1993, this law marks the explicit entrance of the landscape as a specific theme in the French law. One of its main dispositions establishes that the documents about town planning of the local communities have to be in keeping with the orientations described in the charters of the RNPs. The law not only underlines the role of parks in the town and country planning, but its decree of application (1 September 1994) also adds the principle of a convention with the State, specifying its commitments—in particular financial ones—with regard to the implementation of the charter (Fromageau 1993).
3. 'The French regional nature parks and the rural planning as seen by North America: innovative concept or abstract utopia?'
4. The commune is the smallest territorial division in France (district).
5. Especially the development of secondary residences (Bachimon, Dérioz, and Marc 2009).
6. *Conseil Général*, institution composed of elected departmental councillors (*conseillers généraux*) leading the French Departments. The councillors are elected on the territorial scale of the 'cantons', which often includes about 10 communes.
7. The building of the communities of communes, promoted by the law ATR (Orientation Law concerning the Administration of the Territory of the Republic

[*Loi d'Orientation relative à l'Administration du Territoire de la République*], 2 February 1992), has been rather late in the pyrenean range, excepted for the Ariège Department, where these communities are involved today in the process of creation of the new RNP.

8. The owners entrust the forestry pool with their parcels, and receive a profit sharing—but also a cost-sharing—of the wood production, proportionally to their surfaces.
9. L'*Office National des Forêts* (O.N.F.), managing the direct properties of the State (*forêts domaniales*).
10. Inter-communal syndicates.
11. Departmental Direction for Agriculture and Forestry, and Departmental Direction of Equipment (public facilities).
12. Electricity of France (Electricity Board).
13. This strategy also left its mark in the Pyrenees: the dams of the *Haut-Languedoc*—St-Peyres (1934), Vesoles (1956), Raviège (1957) and Laouzas (1965)—are more or less contemporary of the dam of the Lanoux (1960) in Cerdagne, or those of the Vicdessos, such as Izourt (1940) or Gnioure (1950).
14. High districts.
15. Réserve Nationale de Chasse et de Faune Sauvage.
16. Geographic Dictionary and general itinerary for France.
17. 'The whole massif is vast and complex and the interesting areas are covering 80 km$^2$. If we add to this that most of the climbing ways are exceeding 100 metres of height, that some of them are reaching 4 to 500 metres, we can see that the Caroux is much more and much better than a simple climbing school; in fact, it is a wonderful training school for high mountains.' (translation) (in Guy Pistre 1977: Escalades au Caroux, section du Caroux du Club Alpin Français, Béziers, p. 36).
18. This order has been taken by the Ministry of Agriculture, and not by the Ministry of Environment, which was not yet existing (it was created in 1973, for the first time in France).
19. The park was created in 1973, nine years before the Decentralization Act of 1982, which promoted the 22 french Regions as real political and administrative institutions.
20. Office National de la Chasse, depending on the Ministry of Ecology and Sustainable Development.
21. The dump was closed definitively only in 2006, under the pressure of the State administration.
22. Guaranteed vintage vineyards.
23. Law concerning water, 03/01/1992.
24. Orientation Law concerning the Administration of the Territory of the Republic, 2/02/1992 (*Loi d'Orientation relative à l'Administration du Territoire de la République*).
25. DDTM in the department of Hérault, with the integration of the ex Departmental Direction of Maritime Affairs in the new DDT.
26. Departmental tax of the sensitive natural areas.
27. Vineyards.
28. *une volonté d'améliorer et de préserver l'environnement naturel et patrimonial.*
29. *un outil d'attraction dans les nouveaux marchés touristiques.*
30. Groupement d'Intérêt Ecologique et Cynégétique.

31. Green and blue network.
32. Especially the departmental councillors.

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*Chapter 13*

# Landscape Management and Evolution: The Montseny Natural Park[1]

*Xavier Roigé and Ferran Estrada*[2]

Changes in mountain regions have prompted discussion on the interrelations between society and nature to explain the social, political, and economic context behind the management and use of natural resources. Human impact on the environment consists of an adaptive process resulting from economic and population growth. In addition, it involves an interrelation in which landscapes and their evolution are the consequence of constant cultural creation. As indicated by Luginbuhl (1989), 'the landscape is a social product that has not been created in a search for aesthetics. Instead, it is the result of economics and social conflicts.'

The Montseny Mountains (in Catalonia, northeast Spain)—declared a UNESCO Biosphere Reserve in 1978—is an excellent example of the interrelation between socioeconomic and landscape changes. This example shows that landscape analysis should be approached from the perspective of the cultural aspects that influence landscape shape and evolution. Today, Montseny is known, above all, as a protected natural park in which land use, urban development, and landscape preservation are all regulated. This park is inhabited by 1,000 people and visited by almost a million tourists a year. It is a natural park in which agriculture is declining whilst, in contrast, the forest area is increasing. Montseny is not only a frequently visited massif; it is also a particularly popular area of Catalonia, due to its proximity to the main Catalan cities and its diverse landscapes. It has been the setting for many legends, traditions, and literary works. In addition, it has been the subject of many research studies and has significant symbolic importance for Catalonia. It is a landscape that is both 'natural' and 'cultural'.

This chapter reflects on the evolution of the landscape in Montseny in the context of an area that is protected as a natural park. We consider the changes undergone in recent decades and the interaction among the protection of nature, the evolution of society and tourism. Since

the 1970s, agriculture, livestock, and forest uses that characterized the management of this environment for many centuries have gradually been replaced by tertiary sector activities. This change of uses is due to the crisis in mountain agricultural production, high demographic and urban development pressure, and the expansion of tourism. It has meant that the landscape is no longer the result of its inhabitants' production strategies. This production model has been replaced by a consumer model of the landscape.

To what extent have the protection measures implemented in this natural park affected this change in uses? How have the natural park's environmental policies influenced the evolution of the landscape, after 30 years of protection measures? The activities undertaken by the natural park have managed to slow down urban development in the massif and preserve nature. However, they have not managed to stop (and may even have boosted) the progressive transformation of the mountain from an environment that was mainly agricultural to an economy focused on the service sector and tourism. This transformation has not only had socioeconomic consequences, but has also affected the shape of the landscape and its ecological diversity (Peñuelas and Boada 2003: 132; Peñuelas et al. 2007).

The processes of change which have taken place in Montseny are similar to those experienced in other mountain landscapes. In particular, there are similarities with the socioeconomic transformations which have taken place in the Pyrenees, situated relatively close to Montseny (some 50 kilometres at its closest point). In both cases, the evolution of the mountain landscape has been determined by socioeconomic change, by the effects of tourism, and by environmental policies. As Duncan and Duncan point out (1988: 123), conservation policies and systems of ideas and values about the environment condition and permit us to explain the evolution of landscapes so that it is interesting to analyze how nature management policies have affected the processes of change. For this reason, it is interesting to compare the similarities and differences between the Pyrenees and Montseny, defining how both the physical and social landscapes of these mountain worlds have been constructed and how they have influenced each other (McNeill 1992: 405).

## The 'natural' landscape and the 'cultural' landscape: The *mas*'s role in managing the environment

The Montseny Mountains are around 40 kilometres northeast of Barcelona. It extend for approximately 400 km$^2$ and mainly lie (300 km$^2$) within the limits of the Montseny Natural Park. It does not reach a great altitude (1,706 metres, at the peak of the Turó de l'Home). However,

there is an altitude difference of over 1,500 metres between the peaks and the lower part of the range. This, together with its proximity to the sea and its relief, means that these mountains have a wide variety of climatic conditions. This has a major influence on the range of landscapes (Boada and Ullastres 1998; Bolòs 1983).

As in all mountain environments, climatic conditions vary according to altitude. In addition, different, complementary systems of farming and using the environment can be found at different altitudes (Viazzo 1989: 16–20). As shown in Table 13.1, the Montseny Mountains are characterized by great climatic and ecological biodiversity. Although the massif covers a small area, the landscapes that make up the three major biogeographical regions in Europe can be found (Mediterranean, Euro-Siberian and Boreal-Alpine), with a wide range of different species of flora and fauna. Thus, in the lowest zones (up to 900/1,000 metres), the landscape has Mediterranean characteristics. Evergreen trees predominate, such as holm oaks and pines. The understory is made up of shrub-like plants. In contrast, above 1,000 meters the landscape becomes Euro-Siberian, with deciduous trees such as oak, and occasionally beech—typical Euro-Siberian vegetation. The understory is totally herbaceous. Finally, in the highest zones (above 1,600 meters) there are sub-Alpine meadows and scrubland, including species that are resistant to a sub-Alpine climate. This variety of landscapes can be found in very few kilometres.

In some zones, the forest is so rich that it appears to be a virgin space. However, the landscape of the Montseny Mountains is, above all, the result of continuous human activity and practices related to the management of the environment.[3] The socioenvironmental reality of the massif has been characterized by intensive productive use of its resources, particularly crop and livestock farming. This has led to great heterogeneity and plant diversity. The massif has cultural biodiversity, which is the result of traditional agricultural uses and ways of managing the environment. To a great extent, the different land uses have marked the evolution of the landscape at different altitudes, as shown in Table 13.1. The variety of uses of the mountain zones represents a cultural heritage that involves different opportunities for economic use (Körner and Spehn 2002: 17).

For centuries, the most characteristic element and that which has most influenced the shape of the landscape has been the predominance of scattered settlements made up of isolated farms (*mas*; plural *masos*). The *mas* can be considered a unit of adaptation to the environment whose aim is to organize production and consumption in a specific ecological environment, with forms of social and political organization that make the exploitation of this environment viable (Viazzo 1989). *Masos* were a common productive and social unit in Catalonia. They were characterized

**Table 13.1 Potential vegetation, human exploitation, and types of habitat in Montseny.**

| Zone | Altitude (m) | Potential vegetation | Most common plant species | Human exploitation (anthropization of the environment) | Type of habitat |
|---|---|---|---|---|---|
| Plain | 100–400/500 | Mediterra-nean | - Aleppo pine and shrubs<br>- Holm oak groves | - Dry and irrigated mixed crops<br>- Fruit trees<br>- Industrial activities<br>- Limited forest exploitation | - Concentrated (large urban communities)<br>- Plain *masos* |
| Mid-mountain | 400/500–900/1000 | Mediterra-nean | - holm oak groves and shrub-like plants<br>- Mountain Holm oak and oak groves<br>- Scots pine<br>- Riverine forests | - Mixed crops<br>- Fruit trees<br>- Forest exploitation<br>- Livestock farming<br>- Pasture areas, due to deforestation | - Concentrated (small urban communities)<br>- Mid-mountain *masos* |
| High mountain | 900/1000–1600 | Euro-siberian | - Beech<br>- Oak<br>- Chestnut<br>- Fir | - Crops for personal consumption (-1200 m)<br>- Forest exploitation<br>- Livestock farming<br>- Pasture areas, due to deforestation | - Small service centres, but mainly scattered settlements<br>- High mountain *masos* |
| | + 1600 | Boreal-Alpine | - Sub-Alpine meadows<br>- Scrubland | - Pastures | - None |

*Source*: compiled by the authors.

by mixed farming, different generations of one family living together, and the property being inherited as an undivided unit. In 1940, 37% of the population of the municipalities of Montseny (8,666 people out of a total of 23,092) lived in *masos*. In nine municipalities located in the mountain zone (within the boundaries of the current Natural Park), this percentage reached 100% (Llobet 1990[1947]: 456). In the words of Breton (1991: 30), the *mas* has been a visible structure in the landscape, and one of the main elements that has shaped Montseny both economically and culturally. The proximity of cultivable land and pastures, the possibility of finding water nearby, and the relief contributed to this specific form of adaptation to the environment spreading throughout the massif (Font et al. 2002).

The *mas* is not just a building. It comprises and combines tangible assets (buildings, land, livestock, and rights of access to the resources) and intangible assets (a name, symbolic heritage, and a history).[4] Two factors explain the logic of the *mas*. Firstly, there needed to be continuity in the distribution of the resources that had been established in the past. These resources could not vary from generation to generation, as each *mas* relied on access to different production elements. Secondly, production needs had to be balanced with demographic resources. Thus, the *mas* was made up of a main residence and an undivided inheritance. This meant that it could be farmed by successive generations and also ensured that there was demographic control of the family group, as adult siblings who were not heirs were expelled from the *mas*. Consequently, establishing the legal concept of undivided inheritance helped control the farms, regulate the use of the environment, and create a balance with respect to the existing resources. The number of members of a *mas* could vary (in times of prosperity the number of residents could increase, whilst numbers could drop in times of crisis). However, the number of institutions or *masos* normally did not vary.[5] The aim of the residential and inheritance strategies was thus to maintain a balance between the needs of the domestic group and the opportunities to exploit the environment. This correlation between family norms and the management of the environment was one of the main characteristics of social organization in mountain regions (Funnel and Parish 2001: 102–103). Therefore, family practices reflect ways of managing the environment.

The massif has over 700 *masos* (443 within the boundaries of the Natural Park). These were the basic unit for managing the environment, both in terms of production and the forms of vegetation. The *masos*' enduring presence shaped the landscape of Montseny until the 1970s. Ideally, the assets of a *mas* needed to include all of the resources required for a diverse economy—forest, arable land, and pastures—and, if possible, bring all these elements together in the same complex. In a

mountainous area such as Montseny, the differences in the environment at different altitudes and the orientation of the valleys facilitated this ideal, as these factors meant that there was great ecological diversity in relatively close proximity. Therefore, a *mas*' land would have been at different altitudes. This vertical distribution enabled each *mas* to have access to different production resources.

Although there were different types of *masos*, according to their size and location (in the plain, mid-mountain, or high mountain), their production activities were similar. Three elements played a role in managing the environment:[6]

- *Agriculture*. The fields dedicated to mixed crops were situated around the *mas*, especially in lower altitude zones. The *mas*' agricultural activity required complementarities. Some crops were for the family's consumption whilst others were for the market. Crops included those from market gardens, cereals, fruit trees, olive trees, and vines. The production logic of mixed farming led to a high biodiversity of vegetation cover, which is currently declining. To gain productive spaces, inhabitants cut down large areas of the forests, thus shaping a landscape that was characterized by open spaces between the forests. *Masos* could be found in these open spaces, scattered throughout most of the massif region.
- *Forest exploitation*. The forest zones have had different uses throughout history (charcoal, firewood, wood, cork, acorns, chestnuts, wild mushrooms, and hunting). In addition, they represented reserve lands for cultivation. The intensive exploitation of the forest (particularly for energy-related uses) led to forest covers that are closely linked to what they have been used for (Boada 2002: 61). Thus, in mid-mountain zones with Mediterranean vegetation, frequent felling of holm oak groves for energy (firewood and charcoal) and industry (cartwheels, bodywork, pitch, and tars) produced forests with relatively low trees (no more than 50 years old). The process of abandoning agriculture has led to the growth of such forests, with species that are different from the original ones. This process had already begun at the beginning of the 20th century, when vineyards were abandoned and repopulated by aleppo pines, which were better for firewood and charcoal than the holm oak. Above 1,000 metres, in the high mountain with Euro-Siberian vegetation, the forests are also the result of the *masos*' environmental management. The exploitation of chestnut, for example, was very important for obtaining wood for packing cases. Many workers (called 'roders') were employed in this sector at the beginning of the 20th century. Beech was used to obtain firewood

and charcoal. Therefore, the *mas* did not only maintain the quality of the forest, but also stopped it from spreading.

- *Meadows and pastures for livestock*. The Boreal-Alpine pastures situated in the highest zones of the massif and used for livestock are either naturally occurring or the product of deforestation. In both cases, the presence of livestock led to the maintenance and control of the environment, generating ecological habitats that disappear without the animals.

In short, the *mas* was a fundamental element in shaping the landscape of Montseny until the 1960s. The socioenvironmental reality of the zone is the result of the productive strategies of the *masos*. The landscape was constantly recreated by the work carried out to obtain new resources.

## Changes in economic focus and their effect on the shape of the landscape

The productive system described above has greatly changed since the 1970s. This has led to changes in the landscape, including a reduction in biodiversity, a decline in agricultural area and a notable increase in forest area (Boada 2002: 229–234). Although the *mas* buildings have not disappeared, their uses have changed. They are no longer the key element in managing the landscape. Thus, the landscape is no longer the result of the production strategies of the *masos*. Instead, it now reflects the interests of a population that consumes 'nature' and the 'landscape'. In other words, there has been a change from a productive model to a consumer model of the landscape.

The causes of these changes are similar to those in other mountain zones (Lichtenberger 1988; Price 1999; Uhlig and Kreutzmann 1995), although in the case of Montseny, they are more significant as the massif is extremely close to the city of Barcelona (only 40 kilometres). The causes of changes in Montseny include the following: *a)* demographic pressure due to a population increase, which in turn leads to greater urban development pressure; *b)* the crisis in the traditional crop and livestock farming activities, and an economic reorientation of agricultural production; *c)* an increasing tertiarization that led to a significant number of visitors from nearby urban areas, which in turn brought about the expansion of services and the service sector; and *d)* the establishment of the Natural Park and the environmental management carried out by the park's team.

Below, these aspects are looked at in more detail. Table 13.2 shows that the population of Montseny has increased considerably in recent

**Table 13.2 Population evolution in the municipalities of Montseny (1975–2005).**

| | 1975 | 1981 | 1986 | 1991 | 1996 | 2001 | 2005 |
|---|---|---|---|---|---|---|---|
| Total | 24,445 | 25,635 | 26,747 | 29,244 | 33,296 | 38,867 | 46,163 |
| Inside the Park | | | | 679 | 860 | 931 | 1,029 |

*Source*: Parc Natural del Montseny 2005.

decades: from 24,000 inhabitants in 1975 to 46,000 today. This increase was mainly due to people from the metropolitan area moving to this zone so that they could live closer to 'nature'. The population expansion occurred, above all, in the towns situated in the lowest part of the mountain that have better transport links. In towns at higher altitudes, within the boundaries of the Natural Park, the regulations governing urban development and the greater distance to the city have prevented the population from growing rapidly. There were 679 inhabitants inside the Natural Park in 1991. This number had increased to just 1,029 by 2005 (Parc Natural del Montseny 2005: 10). Therefore, the regulations protecting the park have prevented population growth inside the boundaries. However, outside the park boundaries, they have promoted greater demographic growth, due to the added value of living next to a park. This has led to greater demographic and urban development pressure, which has affected the landscape changes.[7]

The element that has most affected the evolution of the landscape is the rapid decline in agricultural activity (Table 13.3). Between 1962 and 1999, 3,646 farms and 19,766 hectares of cultivated area have been lost in the municipalities of Montseny, which represents nine out of every ten farms and one out of every three hectares. This drop has been much more notable in arable farms. A greater proportion of livestock farmers have continued their activities. However, they depend to a great extent on public funding to remain active (subsidies represent between 50% and 70% of their income). Therefore, a change in agricultural policy will also considerably reduce the number of farms. More small farms have been abandoned than large ones. In 1982, the average Usable Agricultural Area (UAA) per farm was 4.9 hectares. In more recent data from 1999, the UAA was 11.8 hectares If we also include forest area, the figure has increased from 14.7 hectares to 78.2 hectares. The remaining farms are usually run by older people who combine several jobs.[8]

The decline in agriculture reflects the general trends in the Catalan countryside that are the result of global economic processes. However, it is also related to the boom in tertiary sector activities in the massif. In 1981, 23% of the active population worked in agriculture. This figure had

Table 13.3 Evolution of farms and cultivated area in the municipalities of Montseny (1982–1999).

| | | With no | Farms with land | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | land | Total | | With livestock | | With no livestock | | With UAA | | With other land | |
| Year | Farms | Farms | Farms | ha | Farms | ha | Farms | ha | Farms | ha | Farms | ha |
| 1962 | | | 4,180 | 61,525 | | | | | | | | |
| 1982 | 2,449 | 40 | 2,409 | 55,051 | 1,022 | 22,197 | 1,387 | 32,854 | 1,647 | 8,026 | 1,746 | 47,024 |
| 1989 | 1,934 | 24 | 1,910 | 52,367 | 604 | 16,198 | 1,306 | 36,172 | 1,130 | 5,686 | 1,439 | 46,685 |
| 1999 | 560 | 26 | 534 | 41,759 | 294 | 13,273 | 240 | 28,485 | 421 | 4,977 | 383 | 36,782 |
| 1962–99 | - | - | -3,646 | -19,766 | - | - | - | - | - | - | - | - |
| % | - | - | -87.2 | -32.1 | - | - | - | - | - | - | - | - |
| 1982–99 | -1,889 | -14 | -1,875 | -13,292 | -728 | -8,924 | -1,147 | -4,369 | -1,226 | -3,049 | -1,363 | -10,242 |
| % | -77.1 | -35.0 | -77.8 | -24.1 | -71.2 | -40.2 | -82.7 | -13.3 | -74.4 | -37.9 | -78.0 | -21.7 |

*Source*: IDESCAT. Compiled by authors.

dropped to 2.9% in 2001 (see Table 13.5). In contrast, the percentage of the active population working in the service sector increased from 24% to 52% in this period. Tourism has developed considerably in Montseny, leading to substantial economic, social, and environmental changes. According to estimates made by the Natural Parks Service, over a million people visit the park annually (Parc Natural del Montseny 2005: 55). The effect of tourism is similar to processes observed in other mountain areas (Price 1992). However, Montseny is used for day trips and weekend breaks as well as the holiday tourism that is typical of the Pyrenees. Therefore, the hotel capacity has only increased moderately, whilst the number of restaurants has increased considerably (Table 13.4). In addition to the importance of tourism, the municipalities of Montseny have a significant, well-established industrial sector, which employs a large proportion of the active population (Table 13.5). Currently, most industries are in the metal, textiles, furniture and wood, chemical, and water bottling sectors. Water bottling has become one of the massif's most important productive resources. The water is of high quality precisely because of the protection of the Natural Park. However, the bottling plants are affecting the aquifers.[9]

The evolution of the *masos* has been characterized by a process of changes of use, which has had a significant impact on the maintenance of

**Table 13.4 Evolution of tourist facilities in the municipalities of Montseny.**

| | Restaurants | Accommodation in rural guesthouses (capacity) | Hotels (capacity) |
|---|---|---|---|
| 1975 | | | 1,084 |
| 1995 | 128 | No data | 1,052 |
| 2000 | 155 | 164 | 1,181 |
| 2005 | 149 | 342 | 1,253 |
| Variation 1975–2005 | 20.1% | | 15.6% |

*Source*: IDESCAT. Compiled by the authors.

**Table 13.5 Percentage of the population employed by sector in Montseny (1981–2001).**

| | Agriculture | Industry | Construction | Services |
|---|---|---|---|---|
| 1981 | 23.00 | 38.00 | 15.00 | 24.00 |
| 1991 | 5.61 | 48.07 | 9.79 | 36.53 |
| 2001 | 2.89 | 34.86 | 10.35 | 51.89 |

*Source*: IDESCAT. Population censuses.

**Table 13.6 Current state and uses of *masos* in the Montseny Natural Park (2007).**

| Description | | Number |
|---|---|---|
| Total number of *masos* and rural guesthouses | | 443 |
| State of conservation | Good or acceptable | 397 |
| | Poor or in ruins | 46 |
| Occupation | Permanent | 180 |
| | Frequent | 106 |
| | Sporadic | 83 |
| | Unoccupied | 74 |
| Use | Dwelling | 280 |
| | Dwelling, crops and livestock | 44 |
| | Only crops and livestock | 22 |
| | Rural tourism, farmhouse | 13 |
| | Restaurants | 9 |
| | Hostel, summer camps | 5 |
| | Disuse | 70 |

*Source*: Diputació de Barcelona 2007a.

the environment (Table 13.6). There have been three types of evolution. Some *masos* have been abandoned and are currently unoccupied, particularly in the higher areas of the massif. The resulting lack of human activity has altered the composition of the fauna and flora. Secondly, some *masos* have persisted as livestock or crop farms. To ensure their survival, they have had to change the focus of their production or combine different occupations. When more than one job is held, dedication to the primary sector often becomes one of the least important of the inhabitants' jobs. Finally, some *masos* have become tourist facilities (rural guesthouses, summer camps, nature schools, restaurants, park services, and museums) or second homes. The *mas* buildings are preserved for all of these uses. However, the land is no longer farmed and there is no correlation with the forms of landscape that sustained the *masos* in the past. This lack of environmental management by the *masos* leads to an increase in forest area. It also results in paths, cultivated land, irrigation systems, and corrals being abandoned. Other new elements are created that are more suitable to the new uses of the mountain. In this case, the use of the dwellings provides a different perspective of the environment. Conflicts emerge between the new tertiary uses and the local, traditional uses. Frequently, the *masos* that are used for tourism highlight clichéd aspects of nature in their publicity material, comparing the supposed homogeneity of the globalized world with the authenticity

and specificity of the old rural lifestyles. Traditional architectural and agricultural elements are used, as well as references to natural heritage, to create an image of unchanged rurality for the new users of the *masos* and park visitors to consume. These elements appear repeatedly in the publicity material used to promote tourism and rural accommodation in the area. Thus, a contradiction arises: whilst *masos* are no longer the main element that manages the environment, a sociocultural image of them as a backdrop for nature and idealized lifestyles has been created (Estrada and Roigé 2006a).

The spread of tourism, changes in agriculture and industry, as well as changes in the use of *masos* have shaped a new landscape and a different way of exploiting the environment. The landscape has become more homogeneous as a result of the decline in crop farming, livestock farming, and forest exploitation. Many former agricultural lands have been replaced by forest. Boada (2002: 118) calculated that between 1945 and 1995 the forest area increased by 20%, whilst the agricultural area decreased by 33%. In addition, some plant species have been replaced by others. The area covered by holm oaks has increased noticeably as they are no longer exploited. In contrast, the presence of beech and mountain meadows has decreased considerably due to the reduction in livestock. In short, the restructuring of many *masos* for tertiary uses has had an impact on the environment, and has even led to ecosystem changes. As a result of changes in the use of the environment and climate changes, the vegetation of Montseny is becoming more Mediterranean. Typical Mediterranean species (holm oaks, pines) are increasing, whilst Euro-Siberian species (above all, beech) are declining. Changes in environmental management are therefore producing significant ecological changes (Peñuelas and Boada 2003; Peñuelas et al. 2007).

In contrast to other mountain areas, the population of the massif is greater than ever, if we count permanent residents, those with second homes, and visitors. The mountain continues to be a source of income for its inhabitants. However, the maintenance of the population is closely related to public funding (invested in managing the Natural Park and developing tourism). Therefore, the *masos* no longer play a key role in managing the environment. They have been replaced by public management.

## Public management of the landscape
## The Montseny Natural Park

One other element is essential to understanding the landscape changes: the Montseny Natural Park's policy of environmental protection. Since its creation in 1977 and in coincidence with the aforementioned changes, the environmental management that was carried out by the *masos* has

**Table 13.7 Protected spaces in the Montseny Natural Park.**

| Zoning of the Natural Park | Ha | % |
|---|---|---|
| Nature reserve (park area) | 16,294.70 | 54.09 |
| Classified nature reserve (park area) | 1,077.70 | 3.57 |
| Zone of influence (area surrounding the park) | 12,747.70 | 42.34 |
| Biosphere reserve | 30,120.10 | 42.32 |
| Public ownership | 4,093.73 | 13.59 |
| Private ownership | 26,190.96 | 86.31 |
| **Total area** | 30,120.10 | 100.00 |

*Source*: Parc Natural del Montseny 2005.

mainly been taken over by the government. Therefore, we will now discuss the role of conservation policies in the landscape changes, indicating to what extent these policies have maintained or even caused the changes (Papayannis and Howard 2007).

As Larrère (1997) states, we can differentiate between two philosophies of protecting nature: one based on 'preservation', which defends an idea of 'wild' nature, with spiritual and identity values; the other in favour of 'conservation', which proposes a model of reasonable exploitation of the environment and the creation of reserves to ensure the future of resources. These two conceptions have coexisted throughout the history of protecting nature. However, in the 1960s/1970s the predominant 'preservation' model was replaced by the 'conservation' model. Subsequently, at the end of the 1980s, another model emerged, based on long-term 'management' to ensure the reproduction of resources and natural environments (Montgolfier and Natali 1987). This model is linked to the idea of 'asset management' that is negotiated between the different social agents involved (Vivien 2001).

Conservation policies for Montseny have a long history and have evolved in parallel with these philosophies. Interest in preserving the mountain began at the end of the 19th century with the first excursionists. These individuals were influenced by the *Renaixença*, a Catalan cultural and ideological movement inspired by Romanticism. They gave impetus to a process of discovering the natural and cultural values of the country. In addition, demands for the preservation of Montseny were influenced by the 1881 declaration of the Yellowstone National Park in the United States, and the establishment of the two first Spanish national parks (Covadonga and Ordesa) in 1918. In 1879, Antoni Massó, one of the founders of the Catalan Association of Scientific Excursions (Associació Catalanista de Excursions Científiques) declared the need to protect the forests of Montseny, indicating that 'the destruction of these magnificent forests of colossal beech trees, giants of vegetation, as poetic as they are

useful, should be avoided.' The excursionist movement played a major role in the development of the ideology of protecting the landscape. This movement also promoted appreciation of the cultural, ecological, scientific, and historic aspects of Montseny, to the extent that these mountains became a real symbol of Catalonia.

In Catalonia, the fight to protect nature became a nationalist statement, in the context of the discovery of specific elements of national identity. Thus, as has occurred in other regions with nationalist movements (McDonald 1998; Togood 1995), the Montseny Mountains were used as a point of identification between nature and nation. Conservation was considered on par with the preservation of Catalonia's identity as a country. Just as the need to preserve historic monuments was stressed, the mythification of the mountain involved the creation of symbols of collective identity, of 'immutable' elements that had to be preserved, in view of the social changes that were threatening the country. Images of nature and of the *masos* of Montseny were used as ideological resources to support nationalist claims. The publication of excursion guides, literary works, folklore tales about legends and traditions, and even scientific studies by geographers and naturalists all contributed to this. Montseny became a mythical place in terms of national identity (Capellà and Tort 2003; Nogué and Vicente 2004).

The first legislation for protecting the massif was not drawn up until 1928, although in 1922 the Catalan government of the time, the *Mancomunitat de Catalunya*, promoted several studies to support the declaration of a national park in Montseny. The poet and regionalist member of parliament Jaume Bofill justified the creation of the park by stressing that the state was obliged to 'maintain or recreate certain forest areas that are essential to the balanced existence of the country.' His main arguments were the area's exceptional biogeographic nature, the way that the different vegetation zones were represented 'with almost didactic clarity' and the massif's role as 'the capital of Cataloni's real mountain park'. However, the plan could not be carried out due to difficulties in applying national park legislation to a mountain in which forests and *masos* were all private property, and due to the establishment of the dictatorship of General Primo de Rivera in Spain (1923–1930). Nevertheless, in 1928 a decree established a council for protecting zones of Montseny above 800 metres. This decree had three aims: *a)* restore all aspects of the mountain to attain greater splendour of its natural beauty; *b)* construct tuberculosis sanatoriums; and *c)* create paths, accesses, and the complementary facilities needed for tourists to use the mountain. It took a long time to start these activities, due to conflicts between the public authorities and the landowners in the zone. Expropriation was attempted several times. However, before the Spanish Civil War

(1936–1939), only 300 hectares had been bought in the area where the sanatoriums and funiculars were going to be established. These were never built. After the Spanish Civil War, the council carried out minimal activities until the end of the 1950s, when some reforestation activities began. In addition, some tourist spaces were adapted, buildings renovated, paths and roads improved, and campsites built (Diputació de Barcelona 2007a, 2007b). However, most importantly, in response to concerns about the rapid urban development that had occurred in the zone in the 1960s and 1970s, the idea of creating a natural park was reconsidered. Different projects and studies were commissioned, which resulted in the approval in 1971 of the Zoning Plan for the Montseny Natural Park, in the final years of the Franco regime.

In the end, the Special Plan for Protecting Montseny was not approved until 1977, once the democratic system had been established in Spain. In 1978, UNESCO declared the Natural Park a Biosphere Reserve. This provided the final impetus for protecting Montseny, which was declared a natural park by the autonomous government in 1987. The declaration states, among its basic arguments, the fact that in terms of nature quality, the Montseny Mountains represent an amalgam of the main landscapes of Western Europe. This document also mentions that human occupation has played an essential role in shaping the current cultural landscape, creating 'exceptional socioecological heritage' (Diputació de Barcelona 2007a). As mentioned above, the total area of the Natural Park is 30,120 hectares. Eighty-six per cent of this area is private property. The park covers 55.6% of the total area of the municipalities in the zone, although in a very uneven way. Some municipalities are completely within the park boundaries, whilst others only have 6% of their area inside the park (Parc Natural del Montseny 2005).

In the 30 years of operation of the park, preservation activities have enabled the development of infrastructure, the consolidation of monitoring and conservation programs, and the promotion of participation. In addition, the urban development that began in the 1970s has been curbed. However, there is a paradox. The protection of the mountain has not managed to prevent—and has even influenced—changes in the uses. In the past, the area was mainly agricultural. Now, it is a natural area that is conceived as a park, which offers services for tourism. In 1972, the agricultural and forest activities, and the lifestyles linked to them, were still important. Today, industrial and service sector activities—mainly those related to tourism—are the main elements of the economic dynamics of Montseny.

It is difficult to determine the extent to which the existence of the Montseny Natural Park has influenced this process of change. Under discussion is to what degree the park has driven or minimized the changes,

by reducing the impact of economic globalization processes and the loss of competitiveness of agricultural areas of the mountain. Some authors consider that natural parks do not represent the concept of protection as much as a way of promoting tourism that constantly clashes with the interests of protecting nature. For example, Campillo (1994) maintains that in Germany the natural parks are really used to resolve the problem of urban leisure. Therefore, whilst natural parks become—theoretically—protected landscapes under bell jars, outside of them, nature and the landscape are devoured by industrial society. The concept of the natural park as a counterweight in overcrowded industrial areas reflects the contradictions of industrial society. Instead of contributing to balancing the territory, parks unbalance it even further (Campillo 1994).

We cannot draw the same conclusions for Montseny and the German case. In contrast to German regulations, Catalan legislation does not stress the importance of visitor access to the park. In addition, Montseny's preservation policy has been characterized by a certain degree of protection of farms, even though it has not been able to halt their decline. Nevertheless, the conservation policies of the 1970s have gradually become obsolete, due to economic changes in the zone and the development of new concepts of environmental conservation. The 1977 regulations—which guided the preservation policies for 30 years—were drawn up in the context of recovering values and spaces that made a democratic and national statement, in the midst of the political transition from Franco's regime to a democracy. Thus, in addition to halting the threat of the disorganized urbanization driven by the construction of second homes (urban developments), these regulations aimed to protect an extraordinary symbol of Catalonia's natural spaces (Diputació de Barcelona 2007b). Although they established a regime of compatibility between the different economic activities, and aimed to preserve traditional economic uses of the massif and limit the expansion of the tertiary sector, the transformation of the mountain has taken another direction. Crop, livestock, and forest activities have continued to have a significant presence in Montseny. However, the main changes in the mountain's landscape are directly related to the crisis in traditional economic activities, which the presence of the park has only been able to ease slightly. This has led to far-reaching sociocultural changes and to changes in biological diversity. Thus, there is a now a new context for the practice and theory of conservation.

It is difficult to assess the extent to which protecting the mountain has not managed to stop changes in the uses of Montseny, or to what extent it has stimulated these changes. In one of the documents drawn up to review the Special Plan for Protecting Montseny (ECAFIR 2004), the need for active management of the region is proposed, in order to

maintain the farming population inside the Natural Park. After stating that 70% of the income of the livestock sector comes from public aid and subsidies, the text proposes that such grants should continue and, simultaneously, be increased, so that it is possible to live on an agricultural income. The text suggests that 'it would be terrible to think that the park had contributed indirectly to the abandonment of farm lands and forest management. We should now recover these activities with public money, investing many more economic resources'(ECAFIR 2004: 59). Likewise, the document indicates that in recent years there has been a transfer of financial aid from the primary sector to the secondary sector and from there to the tertiary sector and to tourism in particular.

In 2007, the 1977 protection regulations were reformed. The new Plan for Protecting Montseny is based on the idea that, more than preserving a specific landscape, the best way to protect an area is by incorporating it into broader land use planning policies (Diputació de Barcelona 2007b). It is argued that the continuing existence of protected spaces will be jeopardized if these spaces end up like ecological islands. Therefore, they need to be integrated into larger spaces. New concepts for protecting nature have also questioned the passive protection of the natural environment, suggesting that the exclusion of human activity makes it difficult to conserve the landscape and can even conflict with conservation. A new concept of active protection has been proposed which accepts human activity and considers that the future landscape of natural spaces will be the result of a social convention (Parc Natural del Montseny 2005). In this respect, the new plan establishes the following objectives: to conserve and increase biological diversity and ecological processes. Simultaneously, the plan suggests that it is important to encourage economic activities that contribute to promoting the proposed regional model. Thus, human activity is understood to be a tool for actively protecting the value of the Montseny Natural Park. Likewise, the conservation and dissemination of architectural, archaeological, historical, and ethnographic heritage is proposed. In short, the new management model is based on the idea of maintaining economic activity, in order to ensure that biodiversity is protecting biodiversity (Diputació de Barcelona 2007b).

## Montseny and the Pyrenees: similarities and differences

Despite the fact that all European mountains follow similar socioeconomic transformation processes it is interesting to compare Montseny with the Pyrenees in order to appreciate the similarities and differences between both mountains which, as we have pointed out, are relatively close geographically.

Although, the use of the environment has historically been based on a mixed system of crop and livestock farming in both mountain areas the traditional systems of managing the environment have been different. Whilst in Montseny—as we have seen—settlement has been predominantly scattered, in the Pyrenees there has been a model of small villages. In both mountain areas the vertical use of the land was a basic strategy but whilst on Montseny this use was managed mainly by the *mas*, in the Pyrenees the village was the key institution for the exploitation and management of the environment. This has had a decisive influence on current systems of nature protection. In Montseny, the existence of plains at the foot of the massif has permitted urban development to take place in the settlements around the perimeter of the massif and has not had so much impact on the mountain. The towns around the edges of Montseny were a tourist attraction whilst the mountain areas, managed by the *masos* remained to a great extent free from urban pressure. In this way the majority of the territory in the Montseny Park is a territory managed traditionally by *masos* which despite socioeconomic changes continue to be a fundamental element in the exploitation of the environment.

In this sense another distinguishing element has been land ownership. In the Pyrenees, above all in high mountain areas the existence of large areas of communal land has facilitated the creation of large parks and state management through transfer or acquisition by the state. In Montseny, on the contrary, private property predominates and despite the fact that a policy of state acquisitions has achieved some public ownership, the confines of the park are predominantly under private ownership Table 13.7. Moreover, many of the owners of the *masos* are large landowners who do not live in the area, whilst in the Pyrenees the large landowners are generally local.

In both cases the interest in the mountain landscape, developed by Catalan hikers from the end of the 19th century, rapidly became an ideological reference point. Thus images of nature and nation were created, which led to the appropriation of the mountain and local culture as elements of identity (Togood 1995) But in the case of Montseny, due to its proximity to Barcelona the culture of the excursion developed much earlier thanks to a bourgeoisie which spent its summers in the mountains and turned various villages in the area (such as Viladrau, La Garriga, or Arbúcies) into large holiday locations during the last quarter of the 19th century and the beginning of the 20th century. In a certain sense, it may be said that in Catalonia, walking and mountain tourism came into being first in Montseny and then spread to the Pyrenees. For this reason, the case of Montseny is interesting as a forerunner to the

processes of ideological construction in excursionism and mountain tourism.

With the improvement in communications experienced in the 1960s, both mountains have followed different processes in changes related to tourism. The proximity of the large urban areas made Montseny, right from the outset, a destination for short stays and day trips, and for a kind of tourism which seeks contact with nature and in which ideas of rural life and nature play a central role. On the contrary, the greater distance of the Pyrenees from the large cities has entailed the creation of a tourism model based on holiday stays also based around nature, and mountain sports. One is confronted therefore by two different models of tourism which have been conditioned by two different models of nature management, although in both cases there has been a gradual transformation of the mountain into an economy of services and tourism.

Both in the Pyrenees and in Montseny, we can appreciate similar processes of landscape transformation. In both mountains the majority of areas cultivated have been abandoned and have undergone a process of a return to vegetation (both natural vegetation and forest plantations), increasing substantially the land covered by forest (Lasanta et al. 2005; Roura et al. 2005) This transformation has taken place together with another process which is also found in both areas: the concentration of the population in the lower-lying areas, easier of access and with land more appropriate for agricultural mechanization and urban development.

In Montseny, as we have seen, the gradual implementation of environmental policies paradoxically has had not only socioeconomic consequences but has also conditioned the shaping of the landscape and has had a negative influence on ecological diversity. Something similar is happening in the Pyrenees although the greater extension of the range implies a greater diversity of environmental situations and processes of change. The demand for 'nature tourism' has brought about the urban development of landscape and services and the reorganization of strategies, from production for urban consumption in rural life up to the almost obligatory recreation of the 'natural.'

As McNeill (1992: 407) has pointed out, the weight of history and culture have had a decisive role in the shaping of mountain landscapes. For this reason, both in the Pyrenees and in Montseny it is possible to see the scars left by the different ways in which the environment has been exploited: from traditional forms of settlement and resource management to more recent profound changes. In both cases, it is even possible to appreciate the effect of sociocultural images generated by the conservation movement converted into environmental policies which in turn generate 'new' landscapes.

## Conclusions

In recent decades, Montseny has undergone a significant process of socioeconomic change, which has affected both land use and the landscape. In the past, crop, livestock, and forest activities shaped this natural space. However, changes in productive activities have profoundly altered this space. The forest mass has increased, some plant species have been replaced by others, and biodiversity has decreased (Peñuelas and Boada 2003).

This process has been accompanied by a change in environmental management. In the past, the environment was shaped by the *mas*—the basic unit of environmental management. Today, public institutions carry out this task. A paradox has therefore arisen: a reduction in biodiversity has coincided with the new legislation for public protection of the Natural Park. The responsibility for the landscape changes cannot only be attributed to the direct action of managing the park. However, management activities have definitely influenced the transformations undergone by the landscape. In any case, this contradiction shows that overall environmental changes in a region cannot only be avoided by implementing legislation that slows development. Such legislation may even have a negative effect on the traditional activities of a region (Boada 2002: 232), and thus encourage an increase in tertiary sector activities and changes in the landscape.

The public management of the Natural Park has generally received a positive response from the local population and has mainly met its objective of preventing the uncontrolled urbanization that threatened the massif in the 1970s. However, it has not managed to stop the transformation of the landscape. Therefore, the authorities that are responsible for the park proposed a new model in 2007. This model is based on a new logic: productive activities should be maintained to ensure that biodiversity is preserved. This new way of interpreting environmental protection presents a significant challenge and an interesting theoretical question: is it possible to maintain some lifestyles or noncompetitive production models in the framework of current production needs and consumption? This question is complex, due to its many environmental, productive, and cultural connotations. However, it is similar to that which could be proposed if a policy of conserving cultural heritage tried to keep some lifestyles or a specific culture on the margins of the evolution of society.

As Catsadorakis (2007) indicated, it is impossible to define natural heritage without referring directly to the cultural heritage that created it. Thus, the most effective and sure way to conserve natural heritage involves helping the traditional forestry and agricultural sectors. To attain the objective of effective conservation, patterns of

vegetation need to be restored, as do the processes that created these patterns. The goal should be the restoration of the total biological, ecological, and cultural diversity of the landscape. This is based more on the concept of cultural restoration of the landscape than on that of conservation (Naveh 1998, 2007). As the evolution of Montseny indicates, the environmental management carried out by the inhabitants of an area cannot be replaced by that of the government. As proposed in the new park objectives, landscape preservation can only be supported by the interactions between the population and the environment and, above all, by knowledge of the sociocultural uses of nature.

## Notes

1. This text is based on research carried out jointly by researchers from the University of Barcelona and from the Ethnological Museum of Montseny-la Gabella in Arbúcies. This research was funded by the Catalan Inventory of Ethnological Heritage (*Inventari del Patrimoni Etnològic de Catalunya*, IPEC), attached to the Catalan Government (Generalitat de Catalunya) and by the Spanish Ministry of Science and Innovation (CSO2008-05065/SOCI). Other results of this research complete and contextualize the statements in this text and can be found in Estrada and Roigé 2006a and 2006b.
2. With the collaboration of Jordi Tura, Sandra Pujadas, Joaquim Mateu, Gemma Font (Ethnological Museum of Montseny-La Gabella).
3. The influence of agricultural practices on the mountain landscape, their persistence and changes in them are parameters of the relation between the ecology, culture, and the economy that have been highlighted in many studies on mountain areas. Uhlig and Kreutzmann (1995) discussed this interrelation in a comparative study of the Andes and the Himalayas. See also Messerli and Ives (1997), Funnell and Parish (2001), and Körner and Spehn (2002).
4. The importance given to this institution is not only due to its role as a form of settlement, but also, above all, to its multifunctional nature in relation to different social, economic, and even ideological dimensions. In Catalonia, the *mas* has been of decisive importance, from an ideological perspective, in collective thought and imagination. It has even been considered an element of national identity (Ferrer 2003; Saguer 2005).
5. The need to demographically limit the population was one of the main reasons behind the system of undivided inheritance and joint families. Demographic control was carried out from within the *masos*, which had to try to avoid sharp increases in their number of members, to prevent overpopulation. At times of demographic growth, when economic opportunities were satisfactory, or when external conditions did not favour emigration, the *masos* housed as many members as possible, up to the limit of their production capacity. In contrast, at times of economic crisis or when external conditions were good, the *masos* expelled their excess population, leaving a smaller joint family with no collateral relations.

6. The proportions of forest, arable land, and pasture in each farm varied according to the location of the *mas* and the size of the property. For example, in the 1970s, according to Breton (1991: 33), in Mas Vivet, located at 650 metres with a total area of 20 hectares, dry crops occupied 72% of the property, the forest occupied 25% and the pastures only 1.9%. In contrast, in Muntanyà, located at a similar altitude (700 metres) but with a total area of 375 hectares, forest area occupied 49% of the farm, pastures 21%, and arable land 16%.
7. The protection of the Natural Park from urban development has curbed the number of second homes within its boundaries. In addition, the increase in permanent population has led to a certain reduction in the number of second homes. Thus, in 1981 almost 40% of the dwellings in all the municipalities of Montseny were second homes. By 2001, this figure had dropped to just 21%.
8. These are old farms. The owners are on an average 52 years old. They mainly use a family workforce—an average of 1.3 people per farm—and complement their livestock farming with other activities. On average, 2.1 family members work outside the farm (Estrada and Roigé 2006b).
9. There are six bottling plants within the limits of the massif and five more in the immediate surroundings. These plants produce over 4 million litres of water per day—almost a third of the total bottled water consumed in Spain. This increasingly high water production is affecting the aquifers in the area.

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# Index


Abruzzo, 8
ADENA-WWF, 81
administrative simplification, 155
afforestation, 214, 228
aggregation of municipalities, 153
agrarian sector, 63; activity, 62, 157, 158, 180; collectivists, 12; demand, 108; expansion, 64
agricultural sector, 39, 43, 48, 56, 241, 246, 250, 254; activity, 36, 37, 143, 149, 153, 156, 158, 159, 206, 214, 230, 240, 242, 249; business, 115, 180; changes, 26; communities, 14; crisis, 163; culture, 15, 165; decline, 45, 56, 203, 223, 229; desertion, 215; development, 133; domain, 50; income, 251; labor, 25; lands, 53, 55, 118, 246; landscape, 15; mechanization, 253; policy, 37, 112, 115, 119, 134, 242; practices, 26, 27; pressure, 17; prices, 108; production, 236, 241; productivity, 25, 134; products, 131; prosperity, 216; strategies, 205; surface, 45; system, 9, 171; technologies, 27; terraces, 196; tradition, 175
Aigüestortes i Estany de Sant Maurici National Park, 111, 145, 146, 151, 173
Aísa, 80, 83
Albania, 17
Albet, 204
Almería, 92
Alps, 34, 136, 205
Alt Pirineu Natural Park, 82, 145, 146
Alt Urgell, 14, 163
Alta Ribagorça, 14,105–107, 111, 114–116, 118, 119
Anayet, 82
Andorra, 13–15, 79, 179–183, 185–193, 195
Andreu-Boussut, V., 231
Anglès, 223
Ansó, 76, 80
Appadurai, A., 176
*appellation contrôlée*, 207, 223
Ara River, 101
Aragon, 9, 13–14, 75, 78–81, 83–87, 92, 93, 96–97, 99–101, 105, 108, 114, 115, 119
Aragüés del Puerto, 80
Arbués, C., 166
architectural heritage, 111, 225, 228, 251
areas of natural interest, 127, 145
Arette, 83
Ariège, 8, 13, 14, 56, 127–130, 133–135
Ariège Departmental Council, 135
Arn Valley, 227
Àrreu Valley, 77
Assemblée Nationale, 225
Associació Catalana d'Excursions Científiques, 247
Associació de Pagesos i Ramaders, 187
Aude river, 213
*auzolan*, 26, 36, 37, 39
Avant-Monts, 217, 219, 223, 224
Aveyron, 129

Badaguás, 77
Baigorri Valley, 26, 28–33, 35–39
Bajo Cinca, 115
Baliera de Castanesa River, 107
Baqueira, 77, 147
Barbastro, 93
Barcelona Traction group, 150
Barcelona, 150, 207, 230, 236, 241, 252
Baretous, 76
Baroque, 166

Barravés Valley, 107
Basque Country, 8, 13, 25, 26, 30, 31, 33, 34, 36, 39; agriculture, 25; commons, 25, 26, 28, 31, 35–37, 39; communities, 32–37; farmers, 25, 26, 32, 33, 35–38; institutions, 26; provinces, 26, 30, 34, 36, 43; territories, 199
Basque language, 27
Béarn, 13, 48
Benasque, 111
Béziers, 219, 224
Biescas, 77
biodiversity, 56, 84, 86, 89, 127, 128, 136, 137, 155, 159, 237, 240, 241, 251, 254
biogeographical region, 77, 84, 89, 237
biological reserve, 218
Birds Directive, 50–52
Birds Special Protection Zone, 80
Black Forest, 8
Boí Valley, 107, 111
Boí-Taüll ski station, 111
Bonabé, 147
Borau, 80
border, 9, 13, 15, 16, 26, 33, 181–183, 186, 187, 192, 193, 197, 199, 200, 205
border treaty, 33
boundary between France and Spain, 33, 181, 196
boundary treaties, 76
Breton, F., 239
Bricall, J.M., 182
British structural functionalism, 12
Brown Bear Recovery Plan, 84, 85
Bulgaria, 17, 18

Cadí, 169
Cadí-Moixeró Natural Park, 168, 169, 172, 176
Campillo, X., 250
Campo, 97
Candanchú, 83
Canillo, 183, 188
capitalization, 176
Caroux, 216–219, 221, 222, 224, 227, 228
carrying capacity, 76
Castanesa Valley, 107, 111
Castellbò, 198
Castilla, 32
Castres, 216, 218, 224
Catalan identity, 199, 203, 204
Catalonia, 9, 13–15, 82, 92, 105, 108, 114, 115, 119, 145, 146, 150, 159, 195, 201, 204, 205, 207, 235, 237, 248, 250, 252
Catsadorakis, G., 254
Central Europe, 17, 99, 176
Centre Excursionista de Catalunya, 82
Cerdagne, 230
Ceret, 201
Cerler, 111
Cévennes, 214
Choblet, C., 231
Cinca Medio, 115
civil society, 181
Cômes, 197
commoditization, 16
Common Agricultural Policy (CAP), 37, 39, 43, 48, 49, 53–56, 118, 134
common property, 13, 17, 28, 29, 31–34, 36–39, 43, 44, 45, 48, 55, 61, 63, 70, 83, 153, 155, 201, 203, 252; access, 201; fields, 158; forests, 27, 59, 61, 63–65, 71, 72, 217; management, 63, 70, 71; ownership, 12, 157; pasture, 27, 38, 80; patrimony, 156, 159; resources, 25–35, 37–39, 44, 55, 78
commons, 12, 13, 16, 25–31, 34, 35, 38, 50, 201
communal identity, 15
communal nationalism, 203
communal rights, 201, 205
communes, 226, 228

Community of Communes of the Mountain of the Haut-Languedoc, 226
Conflent, 15
conflict, 9, 10, 12, 35, 75–78, 81, 83, 85, 91, 96, 127, 137, 181, 185, 189, 196, 197, 199, 200, 201, 203, 205, 222, 225, 227, 235, 245, 248, 251
Conseil Général de l'Ariège, 133
Consell General, 185, 189–191
conservation, 9, 16, 18, 50, 56, 68, 70, 71, 75, 79, 83, 85–87, 89, 128, 136, 145, 158, 159, 163, 164, 168, 197, 218, 222, 223, 230, 247–251, 255; policies, 7, 9, 13, 145, 147, 177, 192, 236, 247, 250
Conservation Strategy in the Pyrenees, 79
conservationism, 9, 12, 81–84, 88; discourses, 89; ideology, 83, 163; measures, 145, 146; movement, 253; policies, 145, 147; values, 88
contraband, 180, 187
Contracte entre Colliters i Fabricants de Tabac, 183
cooperation, 36, 37, 44, 89
Corbières, 214
Corsica, 218
Costa, J., 92–94, 100, 102
count of Foix, 179
Cour Générale, 31, 34, 38
Couserans, 214
Coutume de Soule, 43
Covadonga National Park, 247
cultural change, 199
cultural heritage, 88, 120, 128, 135, 206, 207, 211, 220, 225, 227, 237, 254
cultural heterogeneity, 8
cultural preservation, 198
Czech Republic, 17

dams, 77, 83, 92, 95, 96, 98, 99, 101, 102, 150, 217, 220
decentralization, 226
deforestation, 69, 70, 72, 151, 153, 157, 238, 241
degradation, 71, 192, 195, 196
demographics: change, 17, 25, 107, 143, 180, 191, 200, 214, 221, 224, 242; concentration, 150; control, 239; crisis, 39, 59, 108; distribution, 10; dynamism, 59; evolution, 144, 147; increase, 179; maximum, 215; mobility, 149; pressure, 156, 158, 174, 236, 242; processes, 15; recovery, 111; resources, 239
Department of Environment, 79, 81, 85
Departmental Direction for Agriculture and Forestry, 223, 226
Departmental Direction of Equipment, 226
Departmental Direction of Territories, 226
Departmental Hunting Federation, 223
depopulation, 7–9, 13, 14, 16, 18, 78, 128, 147, 150, 152, 155, 158, 159, 195, 196, 200, 203, 214, 216, 223
development, 9, 12, 26, 39, 55, 77, 80, 87, 88, 92, 95, 97, 98, 101, 114, 118, 128, 133, 134, 136, 138, 144, 168, 187, 189, 204, 206, 211, 223, 226, 230, 231
developmentalism, 9
Dirección Provincial de Montes, 63, 64, 68–70, 72
disentailment laws, 153
Drome, 129
Duncan, J. and Duncan, N., 236
duty-free, 179, 183, 186, 188, 193

Eastern Europe, 17, 197
Eastern Sierra Madre of Oaxaca, 8
Ebro, 63, 92, 95, 96, 99, 105, 114

eco-certification, 225
Ecological and Cynegetic Group of Interests (GIEC), 228
ecological anthropology, 13
ecological change, 7, 10, 18, 246
ecological diversity, 120, 236, 240, 253
ecological dynamics, 230
ecological ethnicity, 199, 200, 205
ecological heritage, 214, 249
ecological perception, 200
ecological policies, 128
ecological politics, 128, 179
ecological process, 214, 251
ecological transition, 17
economic crises, 59, 163
economic development, 80, 87, 128, 168, 189, 204, 211, 223, 230
economic rationality, 181
ecosystem, 37, 81, 86, 89, 151, 180, 200, 226, 230, 246
ecotourism, 227
emigration, 72, 92, 107, 108, 112, 116, 149, 202
endangered species, 79, 84–86, 135
Engel-Di Mauro, S., 208
England, 17
ENHER, 111
Enlightenment, 88, 92
environment, 11, 12, 16, 17, 26, 28, 29, 60, 61, 75, 80, 82, 84, 87, 118, 133–136, 138, 144, 158, 159, 163, 164, 170, 176, 198, 211, 215, 219, 222, 224, 227, 228, 230, 235–241, 245–247, 251–255; changes, 244, 254; conflicts, 75–77; conservation, 70, 86, 250; degradation, 71; governance, 211; history, 195; management, 10, 133, 218, 227, 240, 241, 245, 246, 254, 255; perception, 205; policies, 18, 75, 78, 83, 118, 119, 236, 253; politics, 128; programs, 9; protection areas, 145; recovery, 17; services, 119; systems, 214
environmentalism, 7, 18, 81, 176
erosion, 153, 195, 196
Erro Valley, 32, 33
Escaldes-Engordany, 183
Esera River, 97, 101, 102
Espelunciecha, 77
Espinouse, 216, 217, 219, 228
Espot, 145, 146
Esterri d'Àneu, 148
Estonia, 17
ethnicity, 199, 200, 204, 205
*etxe*, 32
Europe, 8, 9, 11, 13, 17, 59, 137, 179, 195, 237
European agrarian policies, 13
European Agricultural Guidance and Guarantee Found (EAGGF), 48
European agriculture, 35, 36
European agro-environmental programme, 133
European Commission, 51, 52, 82
European Common Agricultural Policy, 134
European Community, 135, 223
European Community Policy, 43, 55
European Economic Community, 48
European policies, 18
European sanitary regulations, 50
European Union (EU), 9, 15, 25, 37–39, 43, 52, 55–57, 84, 114, 118, 119, 131, 186, 187, 193, 196, 197, 199, 200, 207, 228
European Union's agrarian policies, 59
European Union's Common Agricultural Policy (CAP), 37, 118, 119
European Union's territorial policies, 59
Eus, 198
excursionist movement, 248
expropriation, 97, 101, 159, 248
extinction, 68, 84, 164, 168, 205

*facerías*, 76
Fago, 80

farming, 25, 26, 31–33, 35–37, 39, 45, 48, 54, 100, 105–108, 111–120, 163, 164, 168, 171, 175, 177, 179, 189–192, 215–216, 221–223, 237–241, 246, 251, 252
fauna reintroduction, 163, 168, 170, 174
Federación Aragonesa de Montañismo, 82
feudalism, 179
Fillols, 201
Finland, 17, 18
First World, 144, 204
First World War, 65, 67
Fonds d'Intervention Eco-Pastoral (FIEP), 81
Font-Romeu, 230
forest, 8, 13, 17, 25, 27, 28, 61–72, 83, 151, 153, 155–158, 174, 180, 187, 200, 203, 216, 217, 224, 228, 230, 235–242, 245–248, 253; activity, 71, 153, 159, 249, 250, 254; certification, 81; commercialization, 68, 71; Communities, 80, 83; conservation, 68, 70, 71; damage, 68; diversification, 155; engineers, 153; exploitation, 64, 68, 72, 238, 240, 246; fires, 228; growth, 133; jobs, 152; management, 159, 251; markets, 66, 72; mass, 254; patrimony, 152; products, 59, 64, 65, 68, 72, 172; regeneration, 68; repopulation, 155; resources, 61, 205; sector, 63; species substitution, 72; surface, 63, 67, 70; wealth, 68, 69; zones, 240
forestry, 69, 85, 107, 203, 216–218, 221–223, 225, 254
Formigal, 77, 88
France, 12, 13, 17, 25, 26, 30, 32–34, 36, 39, 43, 45, 50–53, 56, 60, 79, 129, 152, 169, 174, 179–182, 185, 186, 192, 197, 200, 203, 212, 220
France, southwestern 25
Franco, 16, 95, 101, 102, 199, 249, 250
Francoist period, 108
Franco-Spanish border, 8, 12, 32, 197, 206
French Alpine Club, 219
French-Spanish region, 195
French Basque Country, 8, 13
French civil law, 35
French government, 25, 28, 33, 38, 39, 137, 187, 207
French king, 34
French National Museum of Natural History (NMNH), 51
French Revolution, 34, 45
*fueros*, 31

Garrigues, 115, 157, 229
Gellner, E., 207
General Direction of Nature and Environment Protection, 223
Generalitat de Catalunya, 155
genetic heritage, 85
gentrification, 8
Germany, 250
Gerri de la Sal, 148
global restoration ideology, 167
globalization, 7, 59, 61, 144, 203, 250
Gobierno de Aragón, 79, 80, 84
good practices, 225
Gorges d'Héric, 218, 219
governance, 28, 31, 50, 55, 201, 203, 211
Graus, 102
Great Britain, 176
Greece, 17
Guara Canyons and Mountains Natural Park, 81
Guzet Niege, 230

Habitats Directive, 50–52, 54, 82
Hardin, G., 28–30, 70, 78

Harvey, D., 176
Haut Conflent, 214
Haut-Languedoc, 9, 214, 215, 217–219, 221, 224, 228, 229, 231
Heatherington, T., 206
Hecho Valley, 80
Hérault, 214, 217, 218, 221, 225, 227, 229
heritage industry, 176
heritage, 127, 128, 130, 132–138, 143, 169, 225
historical approach, 10
historical ecology, 11, 18, 25, 27, 28, 30, 39
historical heritage, 120, 211, 221
holiday residences, 77, 118, 230
Huesca, 97, 153
humanized landscape, 8
Hungary, 18
hunting reserves, 145
hydroelectric industry, 7, 107, 150, 151
hydroelectric stations, 111, 143, 149–151, 155
hypermodernity, 16, 144

identity, 13–17, 56, 93, 95, 97–99, 131, 133, 134, 135, 155, 163, 164, 171, 199, 200, 203–207, 247, 248, 252
immigration, 116, 199
industrial revolution, 7
industrialism, 7
industrialization, 7, 16, 59, 108, 111, 144, 150
in-migration, 224
intensification, 37, 45, 112, 158
intercommunal associations, 215
intercommunal cooperation, 44
international border, 13, 26, 30, 196
International Union for Conservation of Nature (IUCN), 137
invented traditions, 199
Italian border, 34
Italy, 17, 18

Jánovas, 77
Jasa, 80
Jaur Valley, 217, 223, 228, 229
Junta del Tabac, 189

Kayser, B., 224

La Massana, 183
Labourd, 30, 34
Lacaune, 216
Landes, 174
landscape, 7–11, 15, 17, 25–30, 37, 52, 54, 56, 99, 102, 120, 128, 133, 134, 138, 143–147, 149–153, 155–159, 163, 174–176, 195, 196, 198–200, 203–207, 211–216, 218–222, 224–226, 228–230, 235–237, 239–242, 245–255
Languedoc-Roussillon, 200, 214, 221, 222, 225, 227
Larrère, C., 247
Latvia, 17, 18
Lauragais, 216
leisure, 7, 17, 100, 138, 144, 195, 198, 201, 204–207, 211, 221, 224, 227, 250
Ley de Espacios Naturales Protegidos de Aragón (LENPA), 85, 87
Liesa, 77
LIFE European programme, 133, 135
linguistic heterogeneity, 8
livestock, 12, 14, 18, 27, 38, 48, 54–56, 59, 62, 77, 80, 85, 89, 112, 114–119, 129, 130, 148, 156, 157, 169, 170, 201, 236–239, 241–243, 245, 246, 250–252, 254
Llei d'Espais Naturals, 145
Lleida, 153, 170
Llessui, 146
Lliga per a la Defensa del Patrimoni Natural (DEPANA), 82
Llitera, 115, 157
local cultural ecology, 204

local development, 222
local knowledge, 89
localism, 195, 198, 199, 207
Lower-Navarre, 13, 26, 30, 34
Lugibuhl, 235
Luxembourg Agreement, 37

MacSharry reforms, 48
Madrid, 170
management policies, 230, 236
Mancomunitat de Catalunya, 248
Mantet, 204
market integration, 16
*mas*, 237, 239–241, 244–246, 248, 252, 254
Massey, D., 205
Massif Central, 9, 15, 212
Mauléon-Licharre, 43–46
Mauss, M., 181
Mazamet, 216, 218
McNeill, J.R., 253
mechanization, 25, 35, 36, 108, 112, 152, 253
mediation, 76
metropolitan areas, 213, 215, 224, 242
micro-social analysis, 10
Midi-Pyrenees, 127, 214, 221, 222, 225
migration, 7, 9, 25, 32, 35, 72, 149, 157, 195–197, 207, 208; seasonal, 149, 201
milk, 37, 48, 107, 114, 156, 157, 216; production, 27, 47; quotas, 37
Minervois, 216, 223, 227
mining, 7, 59, 108, 179
Minister of Ecology and Sustainable Development, 51
Ministry of the Environment, 79
modern efficiency, 152
modernization, 14, 26, 35, 36, 39, 166, 196, 206
Monegros, 100, 102, 115
monetization, 16
Montaigne Noire, 216, 217
Montanui, 111, 114
Montpellier, 213, 215, 219, 224, 229, 230
Montseny, 9, 15, 16, 235–237, 239–242, 244, 246–255
Montseny Natural Park, 236, 239, 241, 242, 244, 246, 249, 251, 252, 254
multidisciplinary approach, 75, 91
Municipal Councils, 51
Murcia, 92
museums, 14, 18, 143, 145, 168, 176, 245

Napoleon Bonaparte, 34
Narbonne, 213
national border, 200, 205
National Forest Found, 216
National Forestry Service, 217, 222, 223, 227
national heritage, 18, 82, 144
National Hunting Board, 222, 227
National Hunting Reserve of Cadí, 168, 172
National Hunting Reserve, 80, 83, 84
national identity, 207, 248
national minorities, 199
National Park of the Occidental Pyrenees, 215
nationalism, 176, 195, 198, 199, 203–205, 207
nationalist movement, 248
Natura 2000, 43, 50–56, 77–78, 82–84, 86, 89, 145, 146, 227, 231
natural area, 9, 145, 227, 230, 249
natural heritage, 78, 87, 88, 135, 211, 218, 220, 221, 225, 226, 230, 246, 254
natural park, 14, 15, 77, 78, 80, 84, 217, 235, 236, 249, 250
Natural Parks Service, 244
natural protected areas, 7, 9, 13, 78, 82, 88, 144, 207, 230
naturalization, 17

Nature Conservancy, 81, 86
nature conservation, 75, 136, 218, 222
nature tourism, 253
nature-society dichotomy, 8
Navarre, 9, 13, 31, 32, 59–72, 76, 79
negotiation, 10, 35, 76, 103, 183, 231
neighbouring communities, 63
Netherlands, 200
Noguera, 115
Noguera de Tort River, 107
Noguera Pallaresa Valley, 148
Noguera Ribagorzana River, 106, 107, 111
Noguera Valley, 101
Nohèdes, 202
northern Europe, 229

Oloron, 83
open access regimes, 29
Ordesa y Monte Perdido National Park, 85, 87, 247
Ornano line, 33
Ostrom, E., 28
Ott, S., 36
outmigration, 45
overgrazing, 38, 43

Pallars Jussà, 150
Pallars Sobirà, 14, 143–155, 157–159
park, 12, 15, 18, 147, 172, 173, 175, 206, 211, 212, 214, 215, 220–229, 231, 249, 254, 255
participative approach, 225
Pastoral Association, 128, 132–134
pastoralism, 14, 16, 27, 43, 55, 127–130, 132–138, 157, 200
pastures, 9, 25, 27, 28, 30, 33, 36, 38, 43, 44, 46–51, 54, 76, 77, 80, 85, 89, 105–108, 112, 114–117, 119, 129, 133, 157, 201, 214, 216, 228, 230, 238, 239, 241
patrimonialization, 17
Pays Haut-Languedoc et Vignobles, 227
Pla d'Espais d'Interès Natural, 145, 146
Pla d'Urgell, 115
Plan Hidrológico Nacional, 14, 92
Planes de Ordenación de los Recursos Naturales (PORN), 79–84
Planes Rectores de Uso y Gestión (PRUG), 79
planning policies, 251
Poland, 17
political border, 181, 182, 192, 195
political ecology, 11, 18, 91, 181, 195, 199, 205, 206, 208
political economics, 181, 188
political economy, 28, 35, 37, 38
*politique de massif*, 197, 207
Pont de Suert, 107, 108, 111
population, 12, 32, 43, 59, 71, 78–80, 82, 83, 85–88, 92, 95–99, 107–111, 116, 133, 143, 147–152, 154–156, 163, 167, 168, 170–173, 175, 176, 191, 195, 197, 198, 201–203, 205, 215, 216, 219, 224, 235, 239, 241, 242, 244, 246, 251, 253–255; growth, 85, 108, 235, 242; migration, 32; pattern, 147, 149, 156; pressure, 32
Portainé, 147
Portugal, 17
Posets-Maladeta Natural Park, 81, 85, 111
postindustrial societies, 7
postmaterialistic values, 7
preservation, 56, 82, 102, 137, 198, 206, 211, 222, 224, 235, 247–250, 255
Prime Herbagère Agro-Environnementale (PHAE), 50
Primo de Rivera, 248
privatization, 63, 71, 154, 156
production quotas, 37

Programme d'Anménagement et de Gestion de l'Espace, 133
property, 10, 17, 30, 63, 70, 114, 115, 118, 153–155, 187, 188, 201, 202, 206, 207, 229, 239, 248, 249, 252
protected areas, 9, 13, 50, 77–79, 85– 87, 89, 119, 143, 144–147, 159, 171, 173, 223, 227, 247, 251
protected species, 79, 89
protection, 77, 81–85, 87–89, 98, 136, 137, 145, 172, 173, 192, 214, 215, 220, 227, 230, 235–236, 244, 246, 249–252, 254; of natural heritage, 78; policy, 75, 77–79, 171; projects, 89; regimes, 80, 87
protectionism, 81
public lands, 66, 70
public patrimony, 154
public policies, 9, 12, 81, 89
public property, 78, 155
Pyrénées-Atlantiques department, 43, 44, 49, 51

Quebec, 8

ranching, 7, 9, 13, 14, 16, 143, 149, 153, 156–159
reafforestation, 214
real state market, 15, 200
recolonization, 203
recovery, 79, 84, 85, 87–89, 165, 168
recreation, 35, 146, 165, 177, 253
reforestation, 9, 68–72, 112, 158, 216, 217, 249
regional development policies, 133
Regional Nature Park Livradois-Forez, 212
Regional Nature Park of the Haut-Languedoc, 212, 214, 215, 220, 222, 224, 225, 230
Regional Nature Park of the Narbonnaise en Méditerranée, 213, 231
Regional Nature Park of the Pyrénées Ariégeoises, 212, 221, 230
Regional Nature Park of the Pyrénées Catalanes, 212, 222, 230
regional nature parks (RNP), 211, 215, 220, 226, 228, 230
*Reinaixença*, 247
reintroduction, 13, 77, 128, 132, 134–137, 163, 164, 168–171, 174
reserves, 172, 247
resilience, 26, 37, 38
resource control, 8
restoration, 102, 134, 151, 163–168, 176, 202, 255
revival, 8
Ribagorça, 115
Ribagorza, 97, 101, 102
Rio Conference, 224
Robbins, P., 205
Romanesque, 111, 166, 167
Romania, 17
Romaniticism, 12, 247
Roncal, 76
Rosselló, 15
Roura-Pascual, N., 203
Roussillon, 213
Rural Anti-terrorist Groups, 187
rural crisis, 220
rural development, 128, 134, 136, 138
rural renaissence, 224
Russia, 17
rusticity, 163–165, 168, 175, 176
rusticity production strategies, 163–166, 175

Sainte-Engrâce, village of, 36
Saison River, 44
Salat Valley, 129
Salvi, E., 49
Sant Julià de Lòria, 183, 188
Santaliestra, 77
Sardinia, 206
scientific knowledge, 94
Scotland, 17

second industrial revolution, 61
Second World War, 36, 182
secondary residences, 7, 9, 14, 18, 143, 220
Segrià, 115
selective tradition, 168
service sector, 7, 107, 236, 241, 244, 249
settlement pattern, 16, 147
Seu d'Urgell, 179
sex ratio, 45
shepherds, 14, 32, 33, 36, 38, 46, 48–50, 54, 56, 78, 114–117, 119, 120, 127–129, 131, 132, 136, 143, 149, 157, 171, 198
Sidobre, 217–219, 221, 225
*síndic*, 190
Sites of Community Importance (SCI), 79, 80
ski resort, 7, 12, 14, 143, 144, 146, 147, 230
Slovakia, 17, 18
social changes, 7, 188, 248
social classes, 166, 181
social reproduction, 150
Society of Ornithologists (SEO/Birdlife), 81
socioeconomic change, 254
Somail, 216, 217, 223, 228
Somontano de Barbastro, 115
Sort, 148, 149
Soule, 34
Southern Europe, 12
Spain, 11, 13, 17, 26, 32, 33, 59, 60, 64, 78, 79, 92, 99, 100, 105, 108, 114, 136, 179–182, 185–187, 192, 197–199, 203, 207, 235, 248, 249
Spanish Civil War, 149, 248, 249
Spanish government, 33, 92, 187
Spanish polities, 33
Spanish state, 25, 38, 66, 68, 152
Spanish territory, 26, 32, 78
Special Areas of Conservation, 52
Special Protection Areas for Birds (SPA), 79, 80, 83, 84
species protection, 77, 79, 88
Species Recovery Plans (SRP), 84–89
state monopoly, 182
strategy, 11, 14, 15, 25, 26, 35, 69, 80, 81, 89, 94, 95, 106, 115, 116, 119, 147, 163, 166, 168, 173–175, 181, 197, 205, 206, 214, 223, 236, 239, 241, 252, 253
subsidies, 25, 37, 38, 48, 49, 53–55, 118, 119, 192, 206, 223, 242, 251
subsistence agriculture, 7, 108
sustainability indicators, 88
Sustainable Agriculture Contract, 53
sustainable development, 80, 87, 127, 136, 145, 211, 224
sustainable management, 14, 225
Sweden, 17
symbolic heritage, 239
*syndicat, syndicats de vallées*, 34, 35, 38
Syndicate of Soule, 45–49, 51
syndicates, 44
*syndicats intercommunaux*, 217

Tarn, 214, 217, 221
Tavascan, 147
Taxe Départamentale des Espaces Naturels Sensibles (TDENS), 227
Tena Valley, 101
territorialization, 16, 152, 155, 159
tertiarization, 241
Third World, 204, 206
top-down approach, 56; project, 221
total social phenomena, 181
Toulouse, 213, 215, 224, 230
Touring Club of France, 219
Tourism, 7, 9, 12, 14–16, 35, 105, 107, 111, 118, 120, 127, 128, 131, 132, 134, 136, 138, 143, 146, 147, 150, 159, 163, 172–175, 179, 191, 192, 203, 214, 218–220, 222, 225, 235, 236, 244–246, 249–253;

development, 118, 218, 228; economy, 119, 120, 144, 147, 159, 207
tourists, 14, 18, 129, 132, 133, 158, 174, 175, 195, 203, 204, 218, 219, 235, 248
town Councils, 80, 83
Tradets-Sorholus, 43–46
tradition, 12, 14, 84, 87, 97, 98, 102, 128, 159, 163–165, 167, 168, 175, 176, 195, 199, 201, 203, 204, 214, 217, 229, 235, 248
tragedy of the commons, 28, 29, 38, 70, 78
transhumance, 27, 35, 36, 43, 45–50, 54–56, 105, 106, 114–120, 127–132, 134, 157, 200, 202
Treaty of Elizondo, 33
Treaty of the Pyrénées, 33, 35
*trementinaires*, 167, 168
*Trente Glorieuses*, 138, 215
Tribute of the Three Cows, 76

Ukraine, 17
UNESCO Biosphere Reserve, 235, 249
United States, 247
urban areas, 7, 9, 35, 108, 144, 163, 183, 195, 227, 241, 253; development, 77, 235, 236, 241, 242, 249, 250, 252, 253; growth, 61, 147, 180, 224; populations, 18; pressure, 15, 16, 252; society, 9, 88
urbanization, 7, 16, 18, 108, 111, 182, 250, 254
Urgell, 115, 157
US Agency for International Development (USAID), 86

Vaccaro, I., 173, 174
Val d'Aran, 114
Valencia, 92
Vall de Boí, 111, 114
Vall Ferrera, 151
Vall Fosca, 150
Valles Occidentales, 75, 78, 80–82, 84, 85
Valles Occidentales Natural Park, 80
Vernet-les-Bains, 202
Vicdessos, 214
Vilaller, 107, 108, 111
village councils, 64, 66, 72
Virós, 147
Viu Valley, 107
vulnerability, 155, 159

Washington State, 8
Water and Forestry Commission, 217–219
water policy, 94, 99, 102
water studies, 91
water, 8, 9, 14, 16, 33, 66, 76, 78, 86, 91–103, 106, 151, 158, 191, 202, 217, 225, 227, 230, 239, 244
Welch-Devine, M., 30
Western Europe, 9, 17, 36, 249
wilderness, 94, 218, 219
wildlife management, 9
wildlife national reserve, 218, 222, 227
Wolf, E., 81
work opportunities, 45
world heritage site, 111
world-system, 207, 208

Xiberoa, 13, 30, 36, 43–45, 47, 50, 51, 53–56

Yellowstone National Park, 247
Yesa, 101

Zaragoza, 92, 93, 100

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