

# Canvi rural, transformació del paisatge i polítiques territorials a la Terreta (Ribagorça, Catalunya/Aragó)

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UNIVERSITAT DE BARCELONA

PROGRAMA OFICIAL DE DOCTORAT "GEOGRAFIA, PLANIFICACIÓ TERRITORIAL I GESTIÓ AMBIENTAL"

# **CANVI RURAL, TRANSFORMACIÓ DEL PAISATGE I POLÍTIQUES TERRITORIALS A LA TERRETA (RIBAGORÇA, CATALUNYA/ARAGÓ)**

Tesi doctoral

del candidat al grau de Doctor  
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dirigida pel Dr. Joan Tort i Donada

Barcelona, març de 2011

PhD Project

**RURAL CHANGE, LANDSCAPE  
TRANSFORMATIONS AND  
TERRITORIAL POLICIES IN LA  
TERRETA  
(SPANISH PYRENEES)**

*A Shortened Version*

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*Barcelona, March 2011*





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## Preface

A shortened English-version of this research project is presented. The aim of this specific version is two-fold: on the one hand, it should provide the non-Catalan or non-Spanish reader with a brief insight into its contents; while on the other hand, the text is written in compliance with the official requirements of the University of Barcelona for the award of a European Doctorate – Doctor Europaeus (*'Menció de Títol Europeu de Doctor'*).

This shortened version, extending to almost 100 pages, is closely linked to the original Catalan version and to the contents of its six appendices. For this reason, this text is included within the same volume as the original version. However, the reader should note that he or she will encounter references in this English version to graphic material that is only available in the Catalan version or the appendix. Although this English version is designed to be a complete work in its own right, the reader is encouraged to examine the original study in order to obtain a more thorough appreciation of the issues addressed in this project.

Finally, the author would like to express his gratitude to Iain Robinson, who dedicated his time to correcting the author's poor English. However, the author would like to apologize for the marked Spanish (or Catalan) phraseology that remains.

Barcelona, 8 March 2011

## CHAPTER 1: INTRODUCTION

### 1.1 Presentation of Research

The general scope of this research project is presented in this first section. This includes its scientific relevance, its overall goals and the research questions formulated.

#### *1.1.1 Scope, Aims & Scientific Significance*

This research project adopts a geographical approach in seeking to contribute to the process of the broader construction of knowledge. Such a process currently consists in tackling complexity, since the world's problems are not to be readily solved by taking up simplistic perspectives. Rather, cross-sectional knowledge has to be developed, fostered and implemented, in pursuit of the broader notion of *consilience* (Wilson 1999) and a *transdisciplinary* approach. Geography is, I believe, particularly well suited to playing a major role in achieving this goal, as it constitutes both scientific discipline and human knowledge, and is capable of giving meaning to the ongoing *hyperspecialization* that characterises modern science. A transversal approach is, therefore, essential in guiding scientific progress today.

From within the wider geographical field, it is Regional Geography that is adopted in this research project so as to best implement this approach. Regions remain a perfectly valid unit in which to obtain data (and, thus, knowledge) of the earth's geographical phenomena. Although the regional focus has come under intense criticism from new approaches (both quantitative and humanistic) since WW2, Regional Geography is arguably the most appropriate way to implement the aforementioned cross-sectional, transdisciplinary approach. Indeed, such thinking is not new; it is an approach that has been practised by geographers throughout history: from the geographers of the Classic era, including Strabo, to Alexander von Humboldt, and above all by Vidal de la Blache and his school of followers. Remaining faithful to this valuable inheritance, the essential idea underpinning this project is precisely the fact that the region continues to be valid for the work of the geographer and that it is an essential tool for understanding the world.

Yet, in line with the principles outlined above, I argue for a vision of Regional Geography that does not conceive of it simply as a specialized branch of Geography. Rather, Regional Geography should be seen to represent the unity of a discipline and one that provides a



common language so that those, as it were, speaking in many different tongues can communicate with one another. The tools for achieving this goal are description and explanation, and both can only be put to proper use through understanding (Ortega Cantero 1988). Thus, if Geography is a way of understanding the world, the region should serve as an excellent instrument to achieve this goal. However, the region can also become a purpose or a goal in its own right, because humans need to establish certain spatial references in order to firmly locate themselves, and because geographers need to perform the task of exploring and understanding the earth. In short, therefore, a regional approach amounts to a way of interacting with the territory.

As the title of this project stresses, the research undertaken herein represents a dual task. On the one hand, it comprises a case study (La Terreta) of a clearly demarcated area; on the other hand, it involves a careful examination of a set of issues that shape the case study area and which can be identified individually as rural change, landscape transformations and territorial policies. Hence, the title stresses the fact that the project covers two main fields of research: rural studies and mountain studies. It specifically involves an attempt at investigating a profile associated with European mid-mountain areas, most of which are subject to processes (primarily of land abandonment) that clearly differentiate their condition from that recorded in their neighbouring high mountain areas.

However, as it is the study of the territory that is the primary aim of this project, a wide diversity of questions are broached here as having an impact on the case study area, which in turn enables us to adopt a transversal approach. These questions include the impact of agricultural policies, the promotion of rural tourism, structural change in the employment of the population, projects that might change the face of the territory (e.g. the construction of major new infrastructure), new ways of tackling the challenge to preserve the landscape, the phenomenon of *rural newcomers* and new mobility trends.

In order to describe the process via which this research has been undertaken, the author's own relation with the territory cannot be ignored. In this sense, as the author has been exploring the case study area over the last four years, his role has gradually evolved from that of outsider to that of his present-day role as an insider. This process has meant considerable personal involvement combined with the necessary degree of objectivity (so as not to compromise the rigours of neutrality), as the goal pursued in this sense has been to assess the impact of public performance upon the territory.

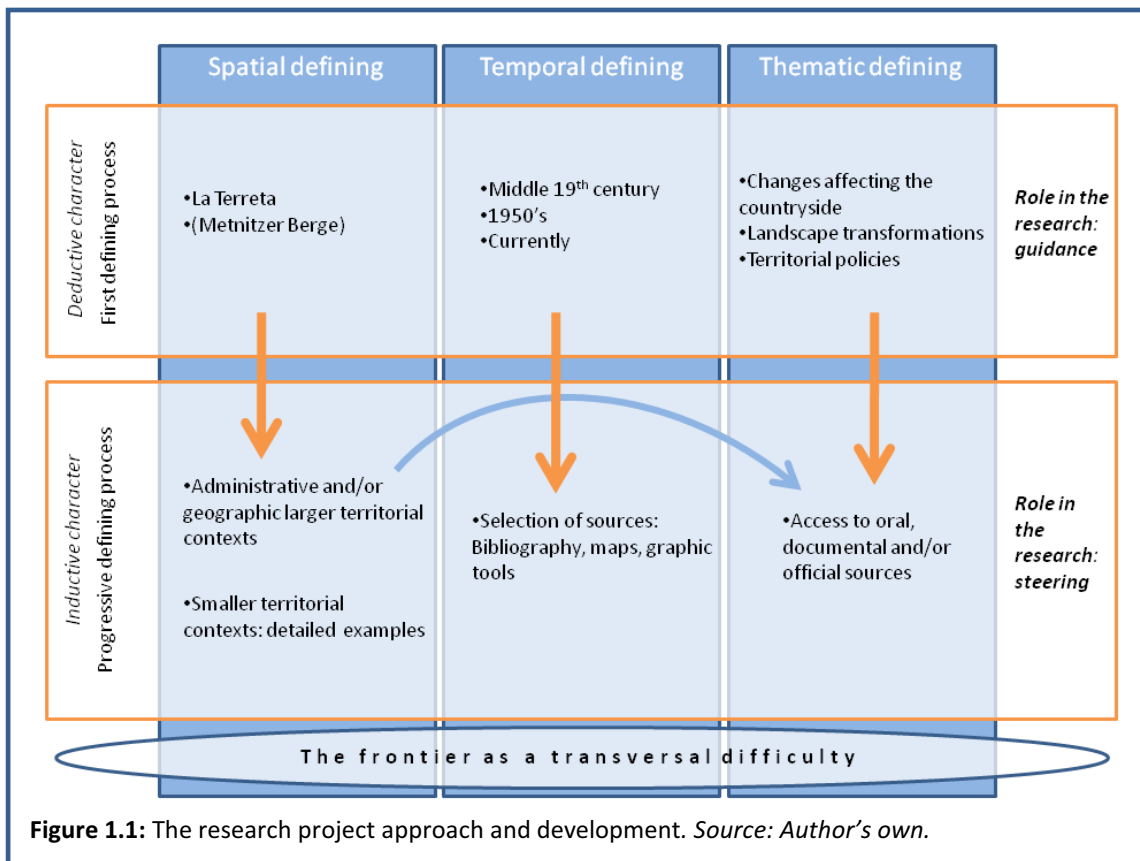


Figure 1.1 outlines in graphic form the ideas described above and which have been applied in undertaking this project. It stresses three main definitions of the project's basic elements: spatial, temporal and thematic. The selection of items making up these three pillars is explained below [see section 1.5]; nevertheless, it is perhaps convenient here to clarify the main differences between the items of inductive and deductive character. The deductive items were determined prior to initiating the research process; consequently, they have played a guiding role in conducting the whole project. By contrast, all other items were defined during the research process itself; thus, they have an inductive character and have more of a steering role in the research. Finally, the overarching transversal question addressed here is the study of the frontier and associated phenomena. Indeed the frontier pervades the whole project and has implied, for the most part, a set of systematic inconveniences.

### 1.1.2 Objectives & Research Questions

This research seeks to undertake the study of an area which is i) geographically and historically homogeneous, ii) characterized by its mountainous and rural character, and iii) administratively divided. The task is based mainly on observation and on the understanding of recent changes that have shaped this area. To this extent, it has involved analysing the performance of different stakeholders (including public authorities and certain private agents).

This work has eventually led to the detection of problems and the formulation of a set of proposed solutions.

This statement of intent is made with specific goals in mind each related to the three pillars supporting the research:

- a) To know the typical peripheral mountain areas spatial dynamics, as they definitely shape our case study. To this end, we propose:
  - a.1) To collect theoretical proposals from solid scientific literature, with particular emphasis on the so-called 'rural change' or 'rural transition' approach.
  - a.2) To summarize the main geographical and historical features of the case study, including those processes that influence the current shape of the area.
- b) To study the landscape changes in this area. Thus, this goal involves:
  - b.1) Establishing a general analytical pattern based on sections of time and turning to previous studies in several scientific fields.
  - b.2) Generating an own mapping system as a basic tool of landscape analysis, and leaning on other graphic materials offering a qualitative interest.
  - b.3) Interpreting the results and developing a reflection focused on landscape.
- c) To do critical analysis of the public performance on the case study based on:
  - c.1) Collecting and studying every planning tool affecting the area of study, both horizontally and vertically, and at different scales of organization of administrative power.
  - c.2) Developing a prognosis regarding the future possibilities of the case study taken into account the public and private stakeholders involved in.

The following main research question is proposed:

- The case study has been experiencing a very deep transformation in a relatively short period of time during (i.e. last half century). This huge shift is probably the fastest along its history, and can be explained through two different driving forces: the demographic decline and the collapse of the 'traditional' land use pattern. Many inevitable changes are likely to occur in the future, but in a quite different context as the one characterized the last decades. These changes will be positive or not, largely depending on the compliance of two premises:
- a) The willingness of the political class to overcome the manifold limitations of the implementation of public policies characterizing the case study.
  - b) The ability of the local population to pressure the political class in order to manage an appropriate public management.

The above statement must first be clarified in accordance with the characteristics of this case study. First, the performance of the political classes needs to be seen in the light of the schemes that they still adopt and which often have little to do with the trends of good governance (i.e. taking steps towards a knowledge-based society and fostering public participation processes). Second, the extreme demographic weaknesses suffered by this area condition any collective capacity for action. In this sense, a further element that must be considered is the complexity of a situation in terms of identities that affects the entire Ribagorça region. Third, the absence of a truly integrated territorial vision being promoted by the public institutions needs to be carefully considered. This shortcoming hinders the bringing together of the various sectoral policies to form a coherent strategy; in other words, a strategy

that would ultimately ensure minimal development opportunities so that local people willing to continue living in the area (or those people wishing to settle in it) might find the appropriate conditions to do so. The administrative boundaries play a crucial role here because they impede the achievement of a proper land policy.

As for the hypothesis underpinning this research, it should be stressed that the negative vision afforded this approach in the social sciences (Ruiz Olabuégana 2003) is a further aspect assumed here by the author. Although Geography is not considered a pure social science, this research is based primarily on qualitative data reflecting human opinions and behaviour. This means that during this research all hypotheses are respected insofar as they do not compromise the achievement of the formulated objectives.

## 1.2 Structure of the Research

The research project is organized roughly in the same way as the contents presented in this report. A multilevel hierarchy is imposed as the main criterion for establishing the importance of the contents, and so this report retains virtually the same structure as the original Catalan project, albeit that this is a considerably shortened version of the latter. This report comprises eight chapters (numbered 1 to 8) organized in four parts (Roman numerals I to IV) so that each part contains two chapters. At the same time, each chapter is divided into different sections (e.g., 2.1, 2.2 and 2.3) and subsections (e.g., 2.1.1, 2.1.2 and 2.1.3).

Although the aim of the present section is to introduce (and not describe) the contents, it should be recognised that it is the project's contents that justify its basic structure (parts and chapters). Two of the four parts correspond to each topic appearing in the project title; thus Part II examines changes that have occurred in the case study area and Part III analyses the public performances of the case study. Part I describes the context for the research and Part IV brings together the problems identified and analysed in the central section of the project in order to undertake a critical global assessment and to formulate the project's conclusions.

- Chapters 1 and 2 describe the objectives, research questions and methodology, and the theoretical background, respectively.
- Chapter 3 presents an exhaustively documented description of the main case study area (la Terreta), including both geographical and historical issues in order to consider the causes of the past and current problems suffered by this area.
- Chapter 4 continues this analysis by introducing the landscape as both subject and methodology for examining in greater detail the scientific output of the case study.

- Chapters 5 and 6 deal with the subject of public performance in the case study area, with each examining a different strategy to achieve this goal. Chapter 5 has territorial planning as its backbone for presenting a multilevel approach both in la Terreta and in the secondary case study area in Austria. Chapter 6, on the other hand, is more thematically oriented, with its separate sections dedicated to the different sectoral policies.
- Finally, Chapter 7 is a critical essay of the problems identified in the case study. It includes a prediction of the future evolution of this area. Chapter 8 establishes the conclusions of the project, and as such is the project's last chapter.

## 1.3 Methodology (1)

The methods used in this research include both quantitative and qualitative techniques; although the latter play a more relevant role. Before detailing them, a brief review of the sources drawn upon is presented.

### 1.3.1 Information sources

Given the diversity of sources drawn upon here, there is an obvious need to distinguish between them. First, the bibliographic sources constitute the backbone of the research, since the information regarding the two main elements (i.e. the case study itself and the issues studied) is based primarily on them. They include consolidated scientific literature, but also published primary sources representing historical territorial data [*see section 1.4*] and official sources (including legal information and a range of planning tools – such as reports and plans). All of these are included in the bibliographic index [*see the Catalan version*].

### 1.3.2 Quantitative techniques

The quantitative data drawn on in this research are largely statistical in nature. These data play a fundamental role in certain chapters, in particular the third (where official demographic and economic data are used) and the fourth (in which we report our own data from the field survey). Thus, considering the project as a whole, it can be claimed that the quantitative information is of merely complementary character. However, this is not to say that these data have played a secondary role, as they complement the qualitative information ensuring that the research is more systematic and reliable.

### 1.3.3 Qualitative techniques

Two different techniques have been used to gather qualitative data: field surveys and in-depth interviews. The former involved mapping verification (including a territorial visual reconnaissance), as well as a gradual process of discovering the social component of the case study area through informal conversations. Although at certain junctures these two methods coincided, the two techniques have an obvious difference, namely their regularity: while mapping verification requires the maintenance of certain criteria, informal conversations are based on spontaneous or semi-spontaneous meetings. In fact, we differentiated between 34 'pure spontaneous' conversations (in which neither the author nor his interlocutor knew that the meeting would take place) and 22 'semi-spontaneous' meetings (that were fixed some hours or days beforehand so that, here, the two parties were aware of the meeting). The majority of these conversations took place in the case study areas.

By contrast, the 31 in-depth interviews organised were systematically prepared according to the contents of Figure 1.2.

#### The interview:

- Is prepared to comprehend, not to explain something. Its aim is to confirm a series of preliminary information gathered by other sources and methods.
- Seeks to maximize the meaning of what is set out.
- Adopts the format 'stimulus / response', without waiting for the answer objectively true, but subjectively honest.
- Seeks to maintain a strict minimum of objectivity. However, emotional responses which ignore the rationality are also accepted.

#### The interviewer:

- Introduces him/herself by explaining the purpose and motivation of their study, as well as the reasons for the choice of the participant.
- Takes control the pace of the interview, depending on the answers of the participant.
- Ask questions with no fixed pattern of response categories.
- Changes the order and the formulation of the questions, adds new ones if necessary.
- Allows interruptions and third party intervention if advisable.
- If it is convenient, does not hide his/her feelings nor the value judgements.
- Explains everything necessary about the meaning of the questions.
- Improvises frequently the contents and the form of the questions.
- Establishes a 'balanced relationship' between familiarity and professionalism.
- Behaves as an 'interested listener' in order to evaluate the responses in the later analysis.

**Answers** are open by definition, no categories are previously established.

In principle, they are registered with recorder; however, the registration process is very flexible and is open to change at any time.

**Figure 1.2:** General features of in-depth interviews. *Source: Author's own based on Ruiz Olabuénaga (2003) [translation is ours].*

Regardless of this general approach, two different patterns<sup>1</sup> were adopted depending on the nature of the participant. On the one hand, there are those participants who are directly linked with the case study and who, consequently, are able to offer an *insider's* perspective. These individuals were interviewed most frequently during the first phase of the research. On the other hand, many other participants were selected because of their role within a certain institution; even though they present an *outsider's* point of view, they were selected as experts on each topic analysed during the research.

Both groups have a feature in common, namely the selection process to which they were submitted. This was based mainly on 'snowball' sampling. By employing this technique, a participant was recruited thanks to a previous contact with another partner who acquainted us with his/her role. This method was adopted because of the specific features of our case study area (with its low, quite dispersed population) and because of the wide scope of the research. As for the interviews, most (though not all) were recorded. After each interview, a non literal transcription was made in which the main ideas to emerge were transcribed.

As can be verified in the Catalan version of the project, both the informal conversations and the in-depth interviews are included in the appendix<sup>2</sup> and constant reference is made to them in each chapter. The following abbreviations are used for ease of reference: 'C' = informal spontaneous conversation, 'TC' = 'semi-informal' and non-spontaneous conversation, 'E' = in-depth interviews and 'TF' = telephone conversations and short interviews.

## 1.4 Methods (2): Mapping

Maps constitute a fundamental tool throughout the research, but especially in Chapter 4. Two specific aspects of mapping - i.e. sources and techniques – need to be distinguished.

### 1.4.1 Cartographical Sources

The cartographical data includes topographic and historical maps. The former were used in order to produce our own maps and include documents at three different scales (1:50,000; 1:25,000 and 1:5,000). There are three editions of the Spanish National Topographic (MTN) map at 1:50,000, corresponding to the 1920s/30s, the 1950s and the 1990s; all of them were used as an initial reference and cover the whole of the case study area. The MTN is also printed at the scale of 1:25,000; in this case, the maps constitute one of the sources for the land use and land cover maps (see below).

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<sup>1</sup> These two patterns can be found in Appendix no. 1 of the Catalan version.

<sup>2</sup> See Tables nos. I.5, I.6 and I.7.

A further important source for making our own maps was aerial photographs and their derived orthophotographs (georeferenced aerial photographs). The earliest were produced during the first photogrammetric flight that covered the whole of Spain and which was carried out by the United States Air Force during the years 1956 and 1957. This is obviously an extraordinary piece of evidence with its own historical value. The subsequent surveys were produced by the Catalan and the Aragonese Cartographic Agencies and were used to assess present-day land cover (both at scales of 1:25,000 and 1:5,000).

Third, a number of historical graphic sources were collected and used. Maps from the 18<sup>th</sup> and the 19<sup>th</sup> centuries were sought out in the historical archives of Lleida and Huesca, but few were found as there has been little mapping of our case study area. Although some sketches illustrating old land property surveys or *cadasters* (such as that conducted between 1729 and 1746 by José Patiño –Camarero, 2007) were found, eventually they were not used here as they were not available for the whole of the studied area; moreover, their information was often imbalanced. However, many old pictures were unearthed in a photographic archive, but only a few were finally included in the project.

#### **1.4.2 Maps**

Several sorts of map (available in Chapters 3 and 4, as well as in Appendixes 2 and 6) were produced during the research. The most important maps are those showing information about land cover and land use, since they constitute a key area of the research. This section, therefore, focuses its attention on these specific maps.

The land use and land cover maps can be divided into two categories depending on whether they cover the whole of the area of the case study (around 500 sq. Km [*see section 1.5*]) or if, by contrast, they cover just certain small areas within the wider case study area [*Map 1.1*]. The former were produced from the MTN maps (1:25,000) and from the aerial photographs (ca. 1:33,000) and orthophotographs (1:50,000 and 1:25,000); while the latter were based mainly on the same aerial photographs, but using the orthophotographs at 1:5,000 (as they cover smaller areas and, as such, require greater accuracy). Each map makes reference to two historical points in time (the mid-20<sup>th</sup> century and the current situation). The reason for producing maps at two different scales reflects the importance of observing and analysing territory at different spatial scales of reference, since different phenomena and different data may be observed at each scale (Gómez Mendoza 2006).



- 1. Agricultural space
  - 1A Cropland
- 2. Riparian vegetation
  - 2A Riparian communities
- 3. Woodland
  - 3A Planted conifers
  - 3a Non-consolidated planted conifers
  - 3B Native deciduous forest
  - 3C Native evergreen forest
  - 3D Mixed forest
- 4. Scrubland
  - 4A Scrubland with trees
  - 4B Scrubland with scattered trees
  - 4C Scrubland without trees
- 5. Grassland
  - 5A Grassland
- 6. Barren & Unproductive
  - 6A Sandy
  - 6B Rocky
  - 6C Badlands
  - 6D Water surface

**Figure 1.3:** Legend of the maps covering the totality of the case study. *Source: Author's own.*

Since the territorial range of these two types of map is quite distinct, their legends also vary considerably. The legends for the maps covering the whole of the case study area are based on six basic categories [Figure 1.3] each containing one or more types of land coverage. This dual-level system makes it possible to apply the same legend to the maps of the 1950s and those of 2007 as well, although the latter are typically more detailed than the former. The best example of this is provided by category number 3 ('Woodland'): while in the map of present-day land cover it is possible to distinguish between five different classes, the map showing the historical land cover is based solely on one generic 'woodland'<sup>3</sup>.

This situation reflects important methodological difficulties that had to be overcome during the mapping process. Besides the aforementioned interpretation problems inherent to the aerial photographs taken in the 1950s (due to their scale, but also due to the fact that they are black and white photographs), the most important difficulty involved the georeferencing process so as to digitalize the map reflecting the historical land cover of the mid-20<sup>th</sup> century. As the photographs do not have any map projection, a certain spatial reference system is needed in order to overcome the usual distortion of a vertical photograph. Although this

<sup>3</sup> See Tables III.1, III.2 and III.3 in Appendix no. 3.

process has generated errors derived from a certain degree of inaccuracy, they could, by and large, be overcome because of their fairly limited spatial significance<sup>4</sup>.

There are a further two maps that represent the whole of the area of the case study and which reflect historical land uses and land cover. Both play an important role in Chapter 4, but both contain a key difference when compared to the maps discussed above, as they were not produced from aerial photographs (in the case of the map reflecting the land uses of the 1930s) or from topographic maps (in the case of the map depicting the land uses of the second half of the 19<sup>th</sup> century). These two maps were consequently made using qualitative data and their value to this research is strictly linked to this particular circumstance. The map derived from the first series of the MTN published at the beginning of the 1930s can only show the excessively simple data provided by this map. On the other hand, the 19<sup>th</sup> century map is mainly based on qualitative data. This information was obtained through non-cartographical sources, and as such this document can be considered an attempt to reconstruct the past land use pattern. For all these reasons, we rejected using the same legends for the maps for the 1950s and the present day [Figure 1.3].

A further six maps were prepared in this research in order to complete the overall view of the evolution in the land use pattern, based on new qualitative data between the 1950s and the present day. As discussed above, these maps concentrate on three specific small areas within the case study [Map 1.1] and are produced at a larger scale (1:5,000). These areas were also selected according to specific criteria (which included geographical and landscape factors)<sup>5</sup>. The aim was to explore some specific issues in more detail, given that the general analysis had been completed.

This situation obviously influenced the techniques adopted. In some respects, they are no different from those used in



<sup>4</sup> Table III.1 [Appendix no. 3] shows that the sum of these areas represents just 2 sq km in a total of 506 sq km (the area of the case study).

<sup>5</sup> See Section 4.2 (Chapter 4).

producing the other group of maps (i.e. georeferencing and digitalization processes, which caused similar problems to those encountered before). But in other respects, the task was quite distinct: for instance, the aerial photographs were scanned with a better graphic resolution (600 dpi vs. 300 dpi) in order to recognize more elements of the land matrix. The land survey also underwent appreciable changes, as we dedicated between three to four days surveying to each map. This work often included a combination of cartographical in situ verification combined with conversations with stakeholders and a toponymic survey. The legends were also changed in order to focus them more specifically on the land use pattern (more than just simply showing the land cover).

## **1.5 The Case Study. Demarcation, Justification and Short Description**

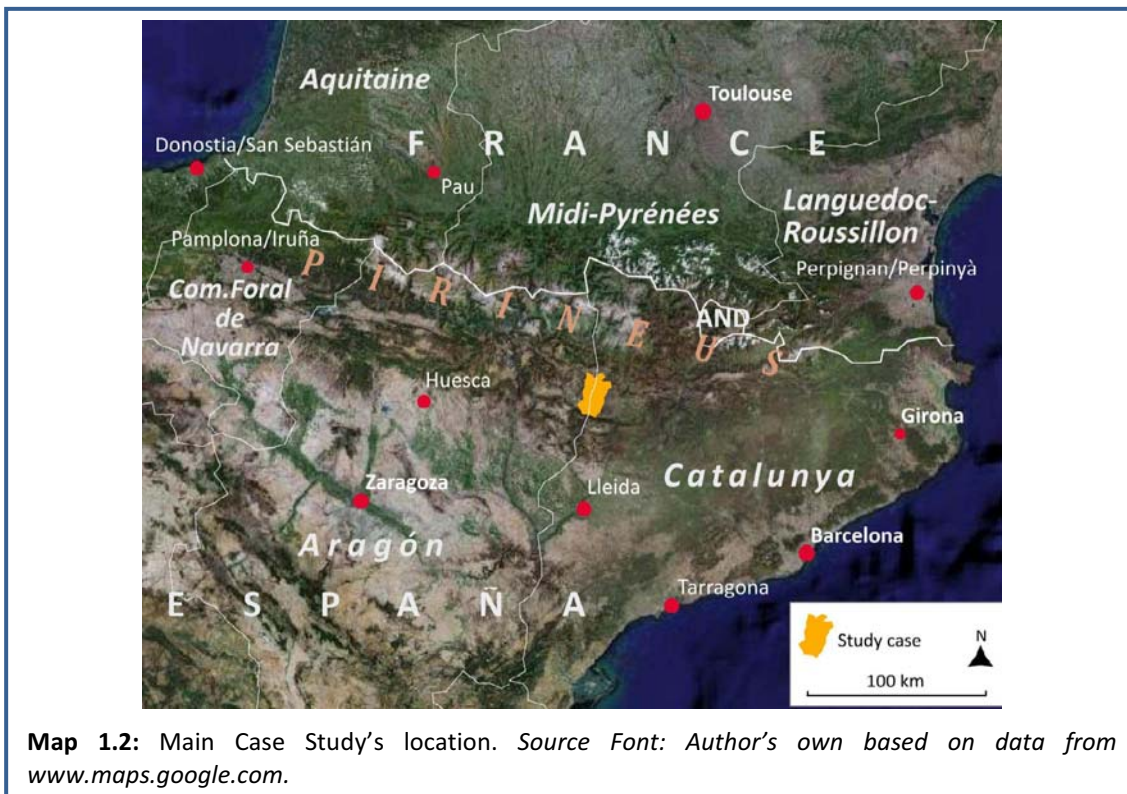
The last section of this chapter is devoted to presenting the case studies. One important premise to consider is that even though there are two different case studies, only one (La Terreta) constitutes the true rationale for this research project. The secondary case study plays the role of an episodic complement, as will become apparent in the rest of the project. This situation also explains why the expression ‘case study’ is here used in its singular form, and not in the plural.

### ***1.5.1 The Main Case Study: La Terreta***

La Terreta is the mid-section of the Noguera Ribagorçana river valley, located in the southern slopes of the Pyrenees, between the Spanish autonomous regions of Catalonia and Aragon [Map 1.2]. Like other rivers in this region, the Noguera Ribagorçana flows from north to south so that it crosses perpendicular to the ranges. In terms of its relief, La Terreta is little more than a modest basin lying between two of these ranges (that of Montsec, to the south, and those of Cis and Sant Gervàs, to the north). Although this area is well-centred around the river, the name ‘Terreta’ is normally applied by locals to just certain sections of the valley (especially, the left bank), while other names (such as ‘la Ribera’) are used to refer to the right bank. Interpretations also exist associating the northern slopes of the Montsec Range (to the south of our area) with ‘la Feixa’ (Bonales 2004).

This toponymic question is closely linked to the geographical features of the context in which La Terreta lies. The Ribagorça –‘Ribagorza’ in Spanish and Aragonese language– region is physically an extremely fragmented territory, which has had no recourse to any kind of political unity in modern times (Solé Sabrés 1964). Thus, the current political and administrative

situation sees the region divided between Catalonia and Aragon. Since the administrative border follows the course of the Noguera Ribagorçana river, la Terreta also finds itself divided. Despite these circumstances, Solé Sabarís (1964) considered la Terreta a united geomorphologic and hydrologic section within the Ribagorça region.



Due to these characteristics, our spatial demarcation is strongly influenced by the area's physical geography; but also by the administrative boundaries (and specifically by the current and/or the past municipalities). As a result, six present-day municipalities are totally or partially included within the study area (four belong to Aragón<sup>6</sup>, and two to Catalonia<sup>7</sup>). They differ greatly in terms of their number of inhabitants, their spatial extension and their processes of historical construction. In this sense, the merger of the municipalities is especially remarkable. All these features are analysed in Chapter 3.

### 1.5.2 The Secondary Case Study: Metnitzer Berge

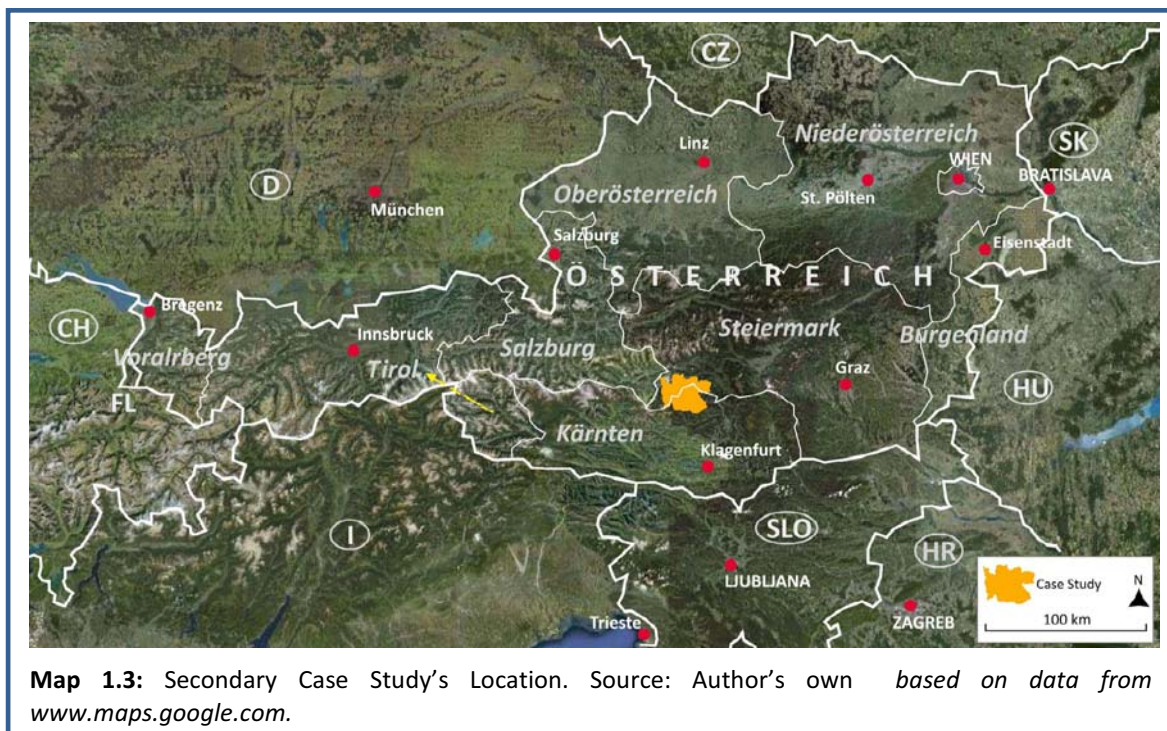
The mountains of Metnitz (or, in German, Metnitzer Berge) are located in the Eastern Austrian Alps between the provinces of Styria and Carinthia [Map 1.3]. Specifically, this area is situated in the Gurktaleralpen range (which, at the same time, forms part of the larger Niedere Tauern). Both the choice and the demarcation criteria are subject to those applied in the main

<sup>6</sup> Their names (in Catalan and in Spanish) are Sopeira, Areny/Arén, El Pont de Montanyana/Puente de Montañana and Viacamp i Lliterà/Viacamp y Litera.

<sup>7</sup> Their names are Tremp and Sant Esteve de la Sarga.



case study, so that we sought particular features (i.e. marginal, mid-mountain and border area) in order to ensure comparability with la Terreta (given that this comparative study is one of the goals justifying the selection of a secondary case study area). Considered as a whole, this region shows similar traits to those described above for la Terreta. Remoteness is one of these (so that reaching the provincial capitals of Graz and Klagenfurt can be particularly time consuming by public transport), as is its mid-mountain character (or, to use the German terminology, a ‘Kulturlandschaft’ area rather than a ‘Naturlandschaft’ one) and, even, the socio-economic problems it must face (past and present demographic decline combined with worrying future prospects that complicate its economic development).

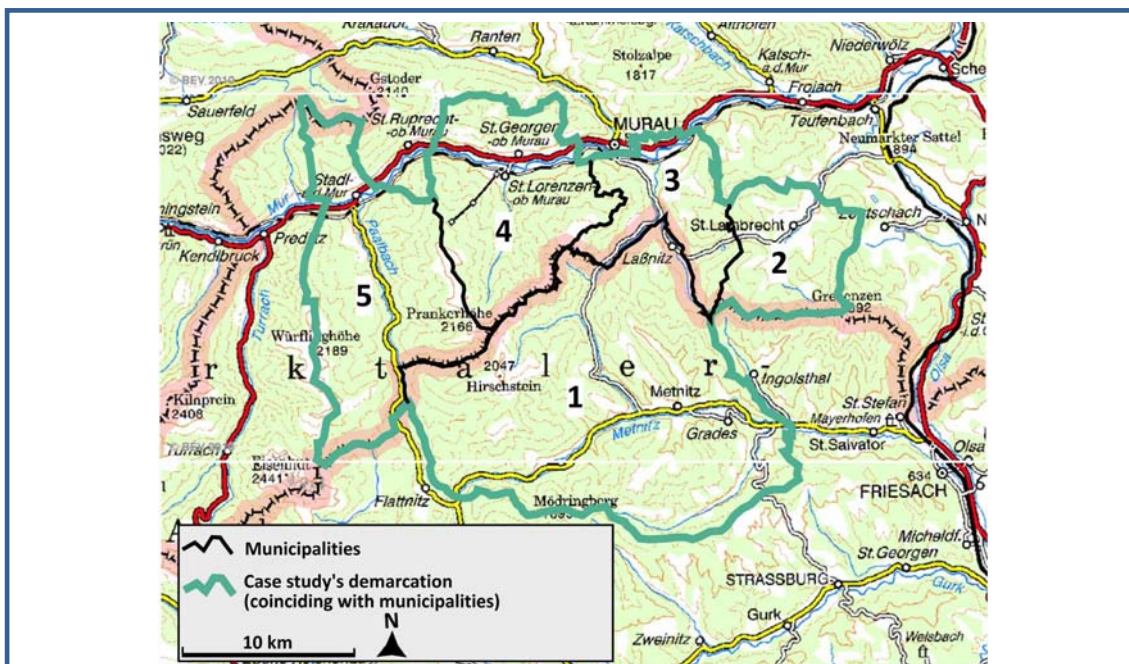


Yet, there is one key element that makes this area quite distinct from the main one: this is the fact that it is made up of two different valleys that run parallel to the provincial border that traverses, almost unbroken, the line formed by the highest points. Although these two units have certain features in common (including a strong forestry-oriented economy), there are essential differences. In the north, the upper Mur Valley (*Oberes Murtal*) lies near the larger, former industrial region of the Mur-Mürz axis and is well articulated around its district capital, Murau (a town which constitutes a secondary service provider). In the south, the Metnitz Valley (*Metnitztal*) is a remote, cul-de-sac and functionally far removed from the economic core of Carinthia (the Klagenfurt basin) and even from the district's capital Sankt Veit an der Glan. This situation contradicts certain evidence presented in Table 1.1; for instance, the Sankt Veit an der Glan district is, in fact, more densely populated than the Murau district (which, at the same time, is experiencing rapid population loss).

Administrative level	Name	Area (sq. km)	Inhabitants (2010)	Population density, (inhab./sq.km), 2010
–	Metnitzer Berge	503	7,156	14.2
Bezirk (district)	Murau	1,394	29,678	21.3
	St. Veit an der Glan	1,494	56,798	38.0
Land (province)	Steiermark	16,392	1,411,238	86.1
	Kärnten	9,536	559,315	58.7

**Table 1.1:** Statistical Details about the Administrative Context of the Metnitzer Berge. *Source: Author's own based on data from Statistik Austria (2010).*

This north-south duality has resulted in high internal diversity within the five municipalities considered here [Map 1.4 and Table 1.2], to the extent that some features consolidate the valley's differences. For example, a major difference can be detected between the municipality of Metnitz (the only one to lie in Carinthia) and the other four (lying within Styria). The former is by far the least densely populated while its area is clearly the largest (as a result of the merger between two municipalities in 1973) and thus it contains many scattered dwellings (22).



**Map 1.4:** Selected Municipalities in the Secondary Case Study. *Source: Author's own based on data from www.austrianmap.at*

<i>Bundesland (NUTS-II)</i>	<i>Bezirk (district)</i>	<i>Gemeinde (municipality)</i>	<i>Area (sq. km)</i>	<i>Inhabitants (2010)</i>	<i>Population density (inhab./sq. km)</i>	<i>Map 1.5</i>
Kärnten	Sankt Veit an der Glan (SV)	Metnitz	223.14	2,179	9.77	<b>1</b>
Steiermark	Murau (MU)	Sankt Lambrecht	44.15	1,489	33.73	<b>2</b>
		Laßnitz bei Murau	45.55	1,085	23.82	<b>3</b>
		Sankt Georgen ob Murau	83.52	1,390	16.64	<b>4</b>
		Stadl an der Mur	106.74	1,013	9.49	<b>5</b>

**Table 1.2:** Statistical Details about the Secondary Case Study. Source: Author's own based on data from [www.statistik.at](http://www.statistik.at).

Yet, many other internal differences should also be highlighted, since the economic and demographic conditions are extremely diverse in Sankt Lambrecht and Sankt Georgen ob Murau (the most dynamic municipalities thanks mainly to winter tourism), Stadl an der Mur (the most remote and suffering a marked loss in number of residents) and Laßnitz bei Murau (with an intense heterogeneity between its two urban centres).<sup>8</sup> All these characteristics can be summed up by the fact that it is the convention to refer to all this area by the name 'Metnitzer Berge', but that the locals do not usually use this name.

In short, there are notable differences between Metnitzer Berge and la Terreta - concerning not only the nature of the frontier dividing the area (which clearly presents other effects than those described in the main case study), but also their respective social and economic structures. At the same time, however, a number of common features do emerge if we observe these two areas as a unity and understand the important contextual differences between them.

<sup>8</sup> This case is explained in Chapter 5.

## CHAPTER 2: THEORETICAL FRAMEWORK

The aim of this, the second, chapter is to outline an epistemological framework in which the overall research project can be situated. The previous examples and theoretical concepts have both been adopted in seeking to explain the overall structure of the project. As Figure 2.1 shows, the three main sections of this chapter coincide with the three pillars supporting this project, namely rural change, landscape transformations and territorial policies.

### 2.1 Recent Changes in Rural Mountain Areas

The term *rural* is a high frequency word in both scientific and standard registers; however, there is a lack of consensus concerning its exact meaning. Although each country (as well as a number of international organizations, such as the OECD) has sought to apply accurate quantitative criteria in defining the portion of its territory that can be considered *rural*, no universally accepted scientific qualitative concept exists. As a result, rural territories are often perceived in terms of their direct opposite, i.e. 'urban' territories and consequently strong associations are made between the *countryside* and rural lands.

Such a way of thinking would have been quite impossible in the 19<sup>th</sup> century when the Catalan civil engineer, Ildefons Cerdà, for example, was completing his well-known *Teoría General de la Urbanización* ('General Urbanization Theory') together with his *General Ruralization Theory*. In fact, Cerdà (who was systematically ignored throughout his career and after his death by his contemporaries) linked the rural and urban conditions of the territory, seeing them as two gradual steps in an overall process of land colonization (Soria y Puig 1989). After all, the word *rural* derives from the Latin word *rus* or *rus*, meaning both *countryside* and *field*.

Unfortunately, Cerdà's holistic approach was largely overlooked, so that rural studies today are based on a functionalistic vision of the rural territory as the supplier of the city's food. The impact of industrialization (especially after WW2) served merely to strengthen this conception. The traditional rural way of life (based on organic means of production – Wrigley 1993) progressively underwent a far-reaching transformation because of its poor capacity of adaptation to industrial standards, and the 'productivist' paradigm was established (Lowe 1993; Bowler 1992) in order to make rural territories profitable in the *Fordist* era. Thus, mass production in the agricultural sector was elevated to the main (and almost unique) activity in the countryside. In this context, rural society was to experience various critical effects. The most important process in this sense is the well-documented 'rural exodus' (Hannah 1970), a massive emigration process from the rural areas to the nascent industrial centres. In Europe,



this process was extremely marked in the south (especially Spain), where booming urban industrial activities attracted many traditional rural families.

For these reasons, rural geography has become intimately related to analyses of agriculture (or primary sector production). The well-known handbook of Rural Geography written by the French geographer, Pierre George (1963), is, in fact, concerned primarily with agrarian activities. Classical approaches to understanding the differences between the rural and the urban worlds tended to follow Tönnie's (1957) theory about the gap between community (*Gemeinschaft*) and society (*Gesellschaft*).

In the 1970s and the 1980s, the world witnessed major political and economic shifts that resulted in a partial collapse of the *Fordist* model and many authors set out to defend the need for a transition from Modernity to post-Modernity. In 1988, the EU published its report 'The Future of Rural Society'. This represented an attempt at consolidating these new approaches that sought to defend a 'post-productivist' position. This meant abandoning the earlier vision of rural areas as simple agricultural producers and incorporating new perspectives (summed up as part of the sustainability paradigm introduced within the EU by the Agenda 2000 proposals).

From within rural studies, an explosion of new paradigms was witnessed. This multiplicity of approaches is best symbolized by the 'rural change' theory (Ilbery 1998), which saw the countryside as a new consumption space (in addition to that served by its production features). In line with this new thinking, novel theories were proposed (such as *counterurbanization* – Berry 1976, *rural newcomers* – Hoggart *et al* 1995, and even *amenity migrants* – Moss 2006) to explain the unprecedented demographic and social shifts occurring in rural areas, which saw them increase in population after years of rural exodus.

From the perspective provided by economics, the 'post-productivist' paradigm was based on new agreements (including, the GATT's Uruguay Round, the McSharry reform of the CAP, or the Earth Summit in Rio de Janeiro) that sought to transform the principles that had hitherto governed the agrarian markets. These new theories defended processes such as *extensification* as opposed to productivist intensification, *dispersion* (as opposed to concentration), *diversification* (as opposed to specialisation) (Ilbery 1998); but, above all, it argued for an intense process of *commoditization*.

Yet, today debates still rage pitting post-productivism against the 'agriculture-as-rural' approach (Lapping 2006). Here, alternative voices speak of the inability of dominant theories, both old and new, to tackle the complexity of rural territories. In exploring this idea further, a *restructuring* approach (Woods 2005) emerges that seeks to defend the combination of the

economic and social effects of rural change. Likewise, poststructuralists are critical of the oversimplification of rural societies (dominated by the 'Average Joe' vision) and call for the need to shift attention to the 'neglected others' (Phillips 1998). What is being defended here is a form of 'cultural turn', and the need for a new nomenclature (such as *rurality*) that recognises the enormous difficulties in finding a common definition of what is 'rural'.

Yet, it is at this juncture that a major paradox emerges: while it is becoming increasingly difficult to establish what in fact is rural, and while rural society is becoming increasingly more similar to urban society, huge efforts are being expended to conserve, and even to reconstruct, the term 'rural' (for example, among public agents who have included the word in the title of various Ministries). What remains clear in all this debate, however, is that the territorial dimension of the rural world cannot be waived, as Cerdà sought to achieve more than 150 years ago.

This short overview of the term *rural* is completed here with the inclusion of two more terms: 'mountain' and 'marginal', as applied to those areas of our case study. The former is, in the same way as the term 'rural', difficult to define with any degree of precision. Although a number of legal instruments set out to demarcate the mountainous portion of a given territory, just what the limits are of the mountain area or where exactly the limits lie between high- and mid-mountain areas is not clear. And while mountain zones have, of late, received the keen attention of several leading scientific and political institutions (including the UN and its MAB Programme), they have more often than not been overlooked in the modernization process that has marked the last two centuries.

As a result, mountain areas are typically linked with marginality. Here again, however, a certain ambiguity clouds this concept giving rise to lengthy theoretical discussions. One approach (Ferrão & Lopes 2004) alone identifies four different interpretations for this term: as distance, as dependency, as difference and as discourse. Other approaches include models of core-periphery and conclude that there are more peripheries than just one (Benko & Lipietz 1992). In its attempts at linking marginal and mountain regions, systematic work is being undertaken in this regard by the IGU Commission on 'Marginalization, Globalization and Regional and Local Responses'.

This section concludes by mentioning some of the more important contributions on this topic and related issues. The majority of studies of mountain regions have been undertaken by Spanish geographers from the 1970s (following the adoption of the French model of the regional study – Ortega Valcárcel 1974) up to the present day, and include the first sector-oriented doctoral thesis (Tulla 1981) and the latest research that examines marginal issues

(Oserín Elorza 2007). Further afield a number of international contributions have been made, including studies that concentrate on the Alpine regions (Bätzing 1993).

## 2.2 The Concept of Landscape in a Changing Territory

The notion of landscape is critical to this project. This second pillar supporting its theoretical framework is dedicated to a presentation of the diversity of approaches that have been given to landscape, as well as to a review of contributions made from this wide variety of perspectives. Here, we concentrate on the specific issues inspiring this project.

The term 'landscape' bears obvious parallels with the adjective 'rural', the significance of both being open to a diversity of interpretations. Moreover, their meanings have something else in common: 'Landscape' in Romance languages (such as Catalan –'paisatge') derives from the Latin word *pagus* (meaning "land" or "field"), specifically interpreted as a continuous process of transformation of the *pagus* by the local *pagesa* population (the Catalan word 'pagès' has no direct translation – even in Spanish, a language which adopted it directly – and so it expresses a person and a condition strongly related with the rural territory, but not solely in its strict agricultural sense) (Tort 2006). *Pagus* is also the root of the Catalan 'país' ('pays' in French), a word that must be understood both in a material and in a non-material sense. As a result, the word 'landscape' is closely linked with 'rural', the latter being derived from *rur* [see the previous section].

Based on this interpretation, the cultural significance of 'landscape' is beyond all doubt, and is as established by Carl O. Sauer in his Cultural Geography. Thus, as Alexander von Humboldt suspected, the holistic vision of the earth has in this notion of landscape a central explanatory tool. The German term, 'Landschaft', thus played a critical role in the early period of academic Geography, taking us from landscape Geography (*Landschaftskunde* – Holt Jensen, 1992) to the division between cultural and natural landscapes (*Kultur- und Naturlandschaft*). Closely related to this interpretation, the study of the landscape as the physical forms of the territory led to Geomorphological assessments, as well as to Landscape Ecology (Forman 1995).

An alternative approach recognises the non-material sphere of the landscape in connection with the way that the earth's physical shape is perceived by individuals or population groups. Today, the well described, new cultural Geographies (Jackson 1999) have turned their critical gaze on this 'old' cultural paradigm (albeit that, at the same time, their contributions are often merely theoretical, like those of the 'cultural turn'). Roger (1997), for example, claims that the central meaning of landscape is related to art itself (understood as an

expression of human observation or gaze), and as such landscape acquires a dual aspect: an *artialization* (from the original French *arctialisation*), i.e. *in situ artialization*, where the landscape is a result of the human transformation of the territory; and, the *in visu artialization*, where it is the subjective interpretation through the gaze that may become a personal or a collective perception projected over the territory.

Given this rich diversity of approaches, landscape is today understood as a complex term, having moved beyond its primitive scientific or artistic meaning to have significance for the broader civil society. Examples of this are the consolidation of landscape management as a part of public policies and the emergence of new economies in rural territories based on natural resources. In fact, landscape has always been linked with the notion of nature (associated with wilderness and areas removed from human influence).

Given the critical role of landscape in this research project, it is necessary to concentrate also on the relationship between cartography and landscape and, particularly, on the temporary nature of the latter. In other words, monitoring the changes to the land has been linked to landscape studies since German academics began to practise “landscape chronology” (Holt Jensen 1992). Technical progress has always supposed considerable advances in this field. This was the case of the appearance of vertical photography and the first satellite images. Today, remote sensing has established itself as the easiest way to obtain data of the earth’s surface. In the 1990s, the GIS led to a revolution (as yet unfinished) by allowing databases to be linked to geographic attributes. As a result, products such as Erdas and ArcGIS (used in this research) have become highly recommended tools for undertaking all forms of landscape assessment.

Such assessments comprise the provision of land cover and land use data. These two concepts are used throughout this project and it is worth highlighting their respective characteristics at this point. Land cover refers to all the elements covering the earth’s surface, i.e. soils and biomass (including natural vegetation, crops and artificial elements). By contrast, land use is concerned with territorial occupation in the human sense (including human activities and how the territory is used). Thus, it should be understood that each land use class can be associated with a particular class of land cover.

Today, there are a number of ongoing projects monitoring the earth’s surface in order to obtain information about its land cover and land use. The program “Land Use-Land Cover Change” (LUCC, initiated in 1994) is perhaps the best known. Other programs publish their results in map form (e.g., the CORINE Land Cover project for all Europe, and the Spanish project, SIOSE). In addition, over the last few decades a large number of scientific

contributions have consolidated land cover-land use studies as an outstanding method for assessing territorial (and, hence, landscape) change. In Spain, the first attempts were based exclusively on the use of aerial photographs (Lasanta 1988), but today the use of GIS is widespread and many projects have used them to illustrate landscape changes in both coastal regions (Martí 2005) and mountain areas (Martínez Pérez 2000; Varga i Linde 2008). Many of these projects adhere to the principles of Landscape Ecology or the GTP (*Géosystème/Territoire/Paysage*) approach (Serrano 2009).

The third area in which landscapes are being exploited both as a perspective and as a tool is the approach that concerns itself with the nature of human occupation and the use of the territory. Following the recognition afforded to the environmental crisis, a specific line of research has dedicated its efforts to assessing changes in terms of a society's energy budget, thereby highlighting the tremendous changes that have occurred as we have shifted from solar energy-based societies to the current non-renewable energetic source systems (Sieferle 1982 and 1997). These calculations have been made in accordance with the 'social metabolism' (Martínez Alier 1987), which demonstrates the inefficiency with which society lives its life today.

In tackling these questions, the landscape (and specifically temporal land use assessments) once more occupies a central position, because of its potential to serve as an unrivalled tool in achieving a transversal understanding of territory. Environmental History (or Ecological History) is the result of these efforts to understand the human footprint upon the territory. It has been of concern to scholars since the historiography of the 18<sup>th</sup> century, but today it is able to draw together many diverse points of view, including that of the geographer who by undertaking a historical study of land use can furnish quantitative and qualitative data so as to clarify the energy flows and to understand the forces driving these processes. Ultimately, we are in a better position to understand the changes in land-use patterns in long-settled territories.

### **2.3 The Management of Rural and Mountain Areas**

The third pillar supporting the project's theoretical framework is concerned with management, i.e. the strategies that territorial agents adopt in order to intervene in the wider territory (and, specifically, in rural mountain areas). The contemporary origin of this concept can be traced back to two key moments: the Industrial Revolution and the present-day global environmental crisis, both of which have spurred the public authorities to take decisions that

impact on the future of their territories. The two events are closely linked to certain conceptions of nature: the debate between the necessity of its dominance and the convenience of its prudent management (Hoggart *et al* 1995). Related to these arguments lies the ideal of achieving maximum development and the debate as to whether this goal can be achieved with or without planning (Naredo 2006; Gómez Orea 2002).

The first attempts to apply these ideals were played out in urban environments. The precedents established by Cerdà are once again of relevance, as he was the first modern thinker to propose a new model for developing the city (applying his famous urban extension - *Eixample* – plan in Barcelona), but more specifically thanks to his lesser known theory of urbanization (see above). In the 20<sup>th</sup> century, urban plans were designed not just for the city but for the wider region. This was the case, for example, of the East Coast in the United States with the prominent undertakings of Geddes and Mumphord, and in Greater London under the guiding eye of Abercrombie and subject to the revolutionary contributions of Howard and the *Garden Cities of Tomorrow* movement.

These specific plans gradually acquired a more systematic nature after WW2. The *Town and Country Planning Act* (passed in 1947) was the first organized strategy aimed specifically at the rural regions in England; however, the planning goals established were the overly ambitious dreams of totalitarian regimes that sought to transform rural areas by fostering urbanization and industrialization through the adoption of a top-down interventionist approach (Lapping 2006).

In today's democratic countries, planning is now fully integrated within the state's broader mission, and forms a part of public policy initiatives. Thus, territorial planning as public policy can be defined as the 'territorial expression of economic, social, cultural and ecological policy representing the common social purpose. This policy seeks a balanced, socio-economic development of the regions, as well as the enhancement of the quality of life, the responsible management of natural resources, environmental protection and, thus, a rational use of the territory' (CEMAT 1983)<sup>9</sup>. However, urban planning, in addition to territorial planning, has been conceived differently and assigned different objectives across countries, depending on the ideals of distinct social groups. For instance, the Anglo-Saxon model of planning has concentrated on the plan, while the continental European model has emphasized actions of 'organisation'. Likewise, a certain divergence can be noted between the French *aménagement du territoire* (which is more closely oriented to economic and regional planning) and the German *Raumordnung* (or *Raumplanung*) (which tends to stress the broader co-ordinating

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<sup>9</sup> Author's translation.

function) (Hildenbrand 1996). Indeed, while one of the main objectives of territorial planning has been to coordinate the manifold expressions of sectoral policy, this task has often been relegated to a secondary position in certain countries.

Turning to examine public initiatives (and other exponents of planning) in rural areas, it can be seen that after WW2, this task was taken on, in most instances, by the capitalist states. The authorities fostered a pattern based on methods of mass production, and here agricultural policy was no different (having a highly significant impact in rural areas). After the 1973 oil crisis, however, the states' direct influence waned somewhat and, as a result, public planning declined in importance. In its place liberal ideology gradually increased in prominence, thus facilitating direct market intervention (McMichael 2004). The last few decades have witnessed a fierce struggle between these two paradigms and while there has been something of a planning revival, sectoral strategies remain more frequent than cross-sectional territorial management.

In this sense, certain agricultural policies have monopolized public performance throughout Europe for a number of decades. The CAP combined goals of utility and equity (Ilbery 1998) and has been a strong supranational policy since the founding of the EEC. The aforementioned report 'The Future of Rural Society' ushered in a period of reform that would culminate in the implementation of new measures for achieving environmental goals, including the 'set-aside' proposal and the greening policies that seek to implement principles of sustainability (Ilbery & Bowler 1998) and to foster new economic dimensions (e.g. developing rural areas capable of exporting quality commodities – Lapping 2006).

Besides agriculture, forestry is another historically important activity in rural areas, and in this regard modern forestry policy has played a crucial role since the beginning of the 20<sup>th</sup> century. The predominantly top-down focused policies have emphasized the exploitation of forests with the aim of maximising profits, especially after WW2. As a result, the traditional management patterns based on diversified activities have gradually disappeared, although they have been partially recovered thanks to the implementation of the sustainable paradigm. Indeed, the FAO published its management principles in which it defended an integrated and diverse exploitation pattern as early as 1951.

The current postproductivist paradigm tends to foster policies based on protective measures so as to strengthen the commodity offer of these areas. This has typically forged links between forestry policy and protected areas, and so in turn with the conservationist movement. Conservationism arose as a consequence of the progressive deterioration of woodlands and (in a broader sense) of the diffusion of the idea proclaiming a new vision of

nature (based on respect rather than on overexploitation – Hoggart *et al* 1995). The main consequence of this movement was the establishment of protected areas (Yellowstone National Park is usually considered the primary example of this protectionist philosophy). This strategy spread relatively quickly all over the world so that today it forms an international institution (the IUNC) that stands as the official authority on the question. As is now well documented, environmental policies are fully consolidated in most countries and have an impact on many areas; yet, protected zones continue at the top of both public and private intervention policies, above all, in rural areas. In this sense, a number of studies have stressed the inadequacies of this model - there being a tendency still to protect natural unaltered ecosystems rather than to be concerned with the vast *colonized* territory (Ojeda Rivera 1988) and, thus, the trend is towards the absence of a truly critical attitude when facing the challenges of the global environmental crisis (Naredo 2006).

In addition to these policies, examples can be provided of cross-sectional strategies oriented specifically at managing rural areas. The most illustrative of these at the European level are mountain and rural development policies; however, the recent promotion of landscape policies in many countries should also be considered here. The EU's rural development policy has thoroughly transformed the original focus of the CAP. This European Regional Policy proposes a common strategy for the whole of the EU. It has recently undergone its latest mutation, during this the current period (2007-2013), so that performances are now concentrated in cohesion funds - the ESF and the ERDF. Former strategies, such as the development goal '5B', devoted to rural development areas, have disappeared.

Mountain policies were introduced into many European countries when the impact of rural restructuring presented significant imbalances in those areas suffering geographical disadvantages (Rodríguez Gutiérrez 1993). At this point, we concentrate the analysis specifically on Spain and Austria given that these two mountainous countries provide the territorial context for the case studies. In Spain, the 1978 Constitution introduced a specific law on mountain agriculture. After almost 30 years of implementation, this legal tool (which is witness to the close links between agriculture and mountain areas in Spanish planning) has had only a superficial impact. The subsequent emergence of Spain's autonomous regions saw the devolution of many planning powers to them, so that each region has today developed its own mountain policy, with significant differences between them. By contrast, Austria has designed a painstaking policy since the beginning of the 20<sup>th</sup> century and, today, this represents a centralized strategy that includes payment of subsidies to mountain farmers (Groier & Hovorka 2007).



Landscape policy, on the other hand, only emerged as a public policy matter when the Council of Europe and the UNESCO related it to heritage management. As in other European states such as France or Germany, Spain (and particularly Catalonia) has experienced a boom in its legal and planning activity related to the landscape and, specifically, its management. Despite this, it cannot be stated unequivocally whether its landscape policy is a truly transversal strategy (Paül & Queralt, 2009).

To conclude this last section of the chapter, some ideas concerning the present and future of the management of rural mountain areas are discussed. The complexity of today's world does not allow the direct adoption of former methodologies (Plaza *et al* 2003) and we are witnessing a flourishing of different theories, models and proposals. Some of these, it is true, emerged some decades ago but only now have they been implemented into official discourse to form part and parcel of public and private territorial interventions (e.g. the 'bottom-up' model – Woods 2005). A central concern, here, continues to be the management of development against a backdrop of ever changing social and economic circumstances. Applying the bottom-up approach, 'endogenous development' (Ray 2006) and 'local development' (Etxezarreta 1988) have been proposed and applied (e.g. the LEADER approach in the rural regions of the EU), while 'sustainable development' deserves special mention, given that it is the most widely used expression (despite obvious criticism – Naredo 2006).

What role does territorial planning need to adopt in this new context? New terms and formulations are being developed that seek to confirm it as the key policy for achieving social and economic goals. The most popular (at least in European terms) is 'territorial cohesion' (Davoudi *et al* 2007) – the concept assumed by the EU in its ESDP for spatial development. Territorial cohesion seeks to guarantee a certain degree of spatial balance by seeking goals of social justice. In other words, it is concerned with making economic planning compatible with continental Europe's vision of territorial planning (Farinós 2001).

Here, and as discussed above, the coordination function is absolutely crucial. If we focus on the Spanish case, particular emphasis must be given to the absence of a consolidated coordination plan, above all in relation to territorial issues (Tarroja & Camagni 2006). In seeking to overcome this problem, several contributions (Farinós 2001; Governa 2002; Kramsho & Hooper 2004) argue for the implementation of 'territorial governance'. The term 'governance' can be traced to the late Middle Ages, but it has been embraced today with fresh meaning as a form of governing that seeks durable economic, social and institutional development based on achieving a balance between the state, society and the market, while networking between the different actors is at the heart of this methodology (Woods 2005).

Despite the variety of diverging interpretations and theoretical proposals, it is clear that good governance needs first to overcome traditional hierarchical governments and to become as such a 'multilevel governance' (Farinós 2001) in which decision makers share their decision-taking capacities. Thus, what is required is a form of 'New Public Management'.

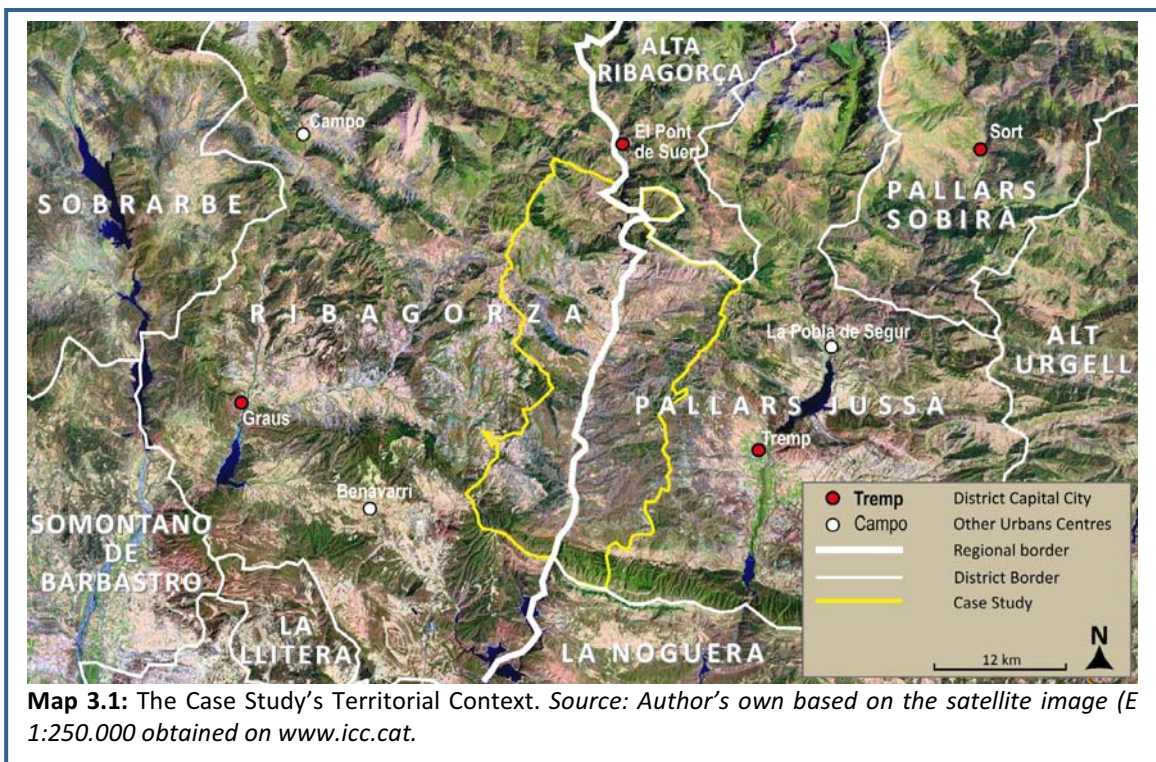
Here, a number of new critical approaches that could acquire significant relevance over forthcoming years should be mentioned. These seek to bring about radical changes in the democratic states (making democracies less representative but more participative), and defend new socio-economic paradigms, such as 'degrowth' (Latouche, 2009). The latter has recently emerged as a largely homogeneous body of thought that criticises the accepted faith in the concept of growth. This idea is implicitly embedded within our concept of development (even in sustainable development – Naredo 2006) and, consequently, in our mentality, too.

## PART II: LA TERRETA: TERRITORIAL AND LANDSCAPE CONCERNS

### CHAPTER 3: A GEO-HISTORICAL ANALYSIS

#### 3.1 A Global Vision of the Area

As discussed in Chapter 1, the main case study area (la Terreta) lies in the Pyrenees mountains, principally in the area known as the *Prepireneu* (the 'pre-Pyrenees'), a sector of the range which can be considered to constitute a separate unit (both in geological and geographical terms). Generally speaking, la Terreta forms the mid-section of the Noguera Ribagorçana river valley and is located between the upland Pyrenees and the steppe, on the one hand, and the dry Ebro Depression, on the other (see Map 3.1 in conjunction with Map 1.2).



Although la Terreta undoubtedly forms part of the mountain milieu, the first-time visitor rapidly observes that the area actually comprises a succession of small, poorly outlined basins making up a mosaic of modest plains and elevated blocks. Rather than an alpine landscape, this section of the valley is the Mediterranean mid-mountain version of the larger Ribagorça region. Indeed, according to Corominas (1996), the place name, 'Ribagorça', derives from the Latin 'ripa' and 'curtus', meaning 'the region of little and short riversides'.

Administratively divided, la Terreta is the sum of six municipalities lying to the right and left of the river. The western municipalities sit within the autonomous community of Aragon (or more specifically the province of Huesca and the district of Ribagorza), while their eastern counterparts belong to Catalonia (or specifically the province of Lleida and the district of Pallars Jussà). The case study extends over an area of some 500 sq km, but its population is extremely low (just 875 inhabitants), giving it a population density of less than 2 inhabitants per sq km [Map 3.1].

<i>Administrative Level</i>	<i>Nomenclature</i>	<i>Area (sq. km)</i>	<i>Population (inhabs.), 2009</i>	<i>Population Density (inhabs/sq km), 2009</i>
–	La Terreta	508	875	1.7
<i>Comarca (District)</i>	Ribagorza	2,459	13,332	5.4
	El Pallars Jussà	1,343	13,840	10.3
<i>Província (Province)</i>	Huesca	15,636	228,409	14.6
	Lleida*	12,172	439,253	36.1
<i>Comunitat Autònoma (Autonomous Region)</i>	Aragón	47,720	1,345,473	28.2
	Catalunya*	32,113	7,504,881	233.7

**Table 3.1:** Basic Data of Case Study. Source: Author's own based on data from the census provided by the Catalan, the Aragonese and the Spanish Statistics Bureau. \* The asterisk means data referring to the year 2010.

If asked to choose just two words that might serve to sum up the area as we find it today, 'heterogeneity' and 'silence' would serve us well. The first of these captures its internal diversity, evident in its physical aspect - mostly bare of woodland as a result of the rigours of the extreme climate and former land uses – and clearly manifesting an extreme diversity of soils and lithologic units. Stones (including those historically used for all types of rural construction) have a permanent presence throughout the area.

The second word, 'silence', dominates this area. As one treks in la Terreta you are unlikely to encounter anyone or hear anything, other than the call of the birds. As in many other mountain areas in Spain, the whole of Ribagorça has been exposed to sudden and severe depopulation. But la Terreta is an extreme example for a number of reasons. First, historically the settlement pattern has tended to result in just a few small, scattered dwellings. This circumstance underpinned the development of a typical rural society, dominated by a strong community spirit and based on individual economic strategies. Second, the region has been politically divided since the Middle Ages. As a result, the present-day influences from Catalonia and Aragon on this area tend to be divergent (or even opposing), with the result that there is no shared identity on the two sides of the border.

All these factors give shape to an area suffering curious paradoxes: on the one hand, a strong marginal condition that becomes less relevant if we consider that one of the main routes to the main winter sports resorts runs through the valley; and, on the other, a rural silence and tranquillity that has served as a pull-in factor attracting rural newcomers.

### 3.2 The Biophysical Component

La Terreta constitutes a part of the physical structure of the pre-Pyrenees, a succession of huge limestone folds dating from the Mesozoic Era. The area comprises three main relief units. The main extension belongs, strictly speaking, to a large syncline running parallel to the central axis of the range and known as the intra-Pyrenees depression. This depression is barely apparent, however, in la Terreta, since the relief forms are made up from heterogeneous materials. Although the majority of the rocks are from the Tertiary, they present a diverse nature that varies in its mineral composition. It is clear that the erosion cycles have affected each material differently, so that the central sector of la Terreta has no morphological unity at all. At the same time, this accounts for the extreme diversity of landscapes in this sector.

The northern and southern limits of the area, by contrast, are prominent anticlines shaped in the limestone ranges (known as the *Serra de Sant Gervàs* and *Serra del Cis* – to the north, and *Serra del Montsec* – to the south) that rise more than 1,500 metres a.s.l. Since these ranges are set out in an east-west direction, the north-south flowing Noguera Ribagorçana river (the main morphogenetic agent during the Quaternary) has gradually carved out spectacular gorges in these two mountain ranges, as have the other rivers in the central region of the Pyrenees. These gorges (named *Escalles* – between *Sant Gervàs* and *Cis* – and *Montrebei* – dividing the *Montsec* range) have historically played a critical role in the human development of the area, as they form strategic passes for transit. In fact, the basin of the *Noguera Ribagorçana* is so physically compartmentalized that it had no modern road connection until the 1950s, when the state began the intensive exploitation of the river's energy resources. Until that time the local people had made use of a fairly dense road and sheep track network.

The climate of la Terreta is defined by two main characteristics: a high diurnal and annual temperature range; and a relatively moderate, and quite irregular, amount of precipitation. The former confers on it a continental climate - given the seasonal temperature range of some 17°C (with the diurnal range also marked, especially in summer), while the latter confers on it a Mediterranean climate - with the rainfall concentrated around the equinoxes and relatively frequent storms during dry periods, especially in summer. In line with

these features, la Terreta's climate might be classified as a Dry-summer subtropical or Mediterranean climate ('Cs') based on the Köppen classification. That said, we should highlight that the area's climatic behaviour varies spatially, becoming cooler and more humid as we move north. In this sense, a key fact is that the northern ranges (*Sant Gervàs* and *Cis*) constitute an *ecotone* or a transition zone between two different climatic and, hence, biogeographic zones (or biomes). The Sant Gervàs and Cis mountains separate, in fact, the humid Pyrenees (forming part of the Eurosiberian region) and the dry sector (belonging to the Mediterranean region). This means that the northern sector of the case study area is shaped by an additional climate factor, namely the absence of a dry season ('Cf' according to Köppen) and, thus, a higher amount of rainfall.

The area's biogeography is strongly conditioned by the natural environment, but even more so by human actions throughout history. However, mention should first be made of the north/south climate divide, since this undoubtedly affects the natural vegetation. For instance, in the case of tree species, the oak dominates the area north of the *Sant Gervàs* and *Cis* ranges, while a mixture of holm and downy oak characterizes most of the area in the south. The potential vegetation distribution depends on relief (the altitude ranges from 500 to 1,900 m.a.s.l.), the watershed (note that sunny and shady sides succeed each other), soils (predominantly basic, but above all poor) and the climate (described above).

The primary woodland communities have been gradually exposed to degradation for a variety of factors. As a result, scrubland areas have become predominant. The surface vegetation comprises different communities including diverse sclerophyllous species. Moreover, two tree communities should be mentioned as they are located outside their present-day distribution area and, thus, are rare in this environment: apart from the larger, flat oakwood in Catalonia, small beech and yew trees are found in la Terreta. A number of endemic species still grow in the *Escales* and *Mont-rebei* gorges.

The present-day vegetation is marked by the introduction of new tree species following plantations undertaken over the last six decades, as well as by the unstoppable abandonment of cropland and forest areas. As discussed in detail below, these plantations have meant that certain conifers (a secondary tree type given the natural conditions) became the dominant species, while the abandonment of farming served as a trigger for the spectacular increase in invasive herbs and scrub.

### 3.3 The Human Component

The third section of this chapter is undertaken with the aim of shedding further insights into the territory but ignoring the formal division between its 'physical' and 'human'



geography. What we seek to stress is that the shape of the physical territory and its historical development cannot be separated, but must form part of a unified explanation.

The best way to tackle this is to travel back in time and to trace the historical process of territorial colonization. Here, the first important episode was the foundation of the settlement pattern that was to endure until the socio-economic crisis of the mid-20<sup>th</sup> century. This is closely related to the Iberian Christian/Muslim division during the Early Middle Ages. The *Marca Hispanica* or the Spanish March was in fact a spatially dynamic fringe in the pre-Pyrenees, which meant la Terreta was a border area until the 10-11<sup>th</sup> centuries (Iglesias Costa 2001; Barrull 2006), when the Christian County of Ribagorça consolidated its domain over the area and extended its power southwards (forming part of the Spanish '*Reconquista*').

Christian dominion meant rule by the Church, not just in spiritual but also in material terms. This gave rise to the then dominant settlement pattern and the system of land ownership. The monasteries served as the main territorial agent, administering plots of land both through their direct ownership of large expanses of land and through the *aprisio* grant system. Thus, the monastery of *Alaó*, (situated in the southern access to the *Escales* gorge) controlled large properties from the date of its foundation in the 7<sup>th</sup> century. In the Late Middle Ages it can be assumed that local political power reached its zenith as the County of Ribagorça acquired independent status from the Count of Toulouse. In 1322, the border between this and the County of Pallars was established along the Noguera Ribagorçana river.

Politically speaking, the Modern Era meant a progressive decline in the role of the local authorities. From the beginning of the 18<sup>th</sup> century, the absolutist monarchy of the Bourbons made efforts to centralize power and to remove any disparities in this power among the Hispanic territories. A concerted effort at centralisation was made and although the degree of centralised power boasted by France was never achieved, the former sovereign territories (Ribagorça county included) lost all elements of singularity in this respect. Finally, the transition from the Enlightenment to the Liberal State entailed major transformations in terms of taxation, access to land, the credit system and municipal government (Bonales 1999).

Today, of particular interest are questions related to these patterns of settlement system and land ownership, as we witness considerable territorial and landscape shifts in the case study area. The settlement network comprises two basic models: scattered and concentrated dwellings. Unlike the areas under constant Christian rule (such as the so-called '*Catalunya Vella*'), which are characterised by the presence of isolated farms (the *masia* or *mas*), and the areas that were subsequently conquered (previously settled by the Muslims and presenting a concentrated settlement pattern), la Terreta has a mixed settlement pattern in which medium-sized and small villages coexist with the farms (*masos*). Moreover, considerable

differences can be seen between the villages –while some are comprised entirely of detached buildings, others concentrate all their housing in just a couple of streets– and the farms (with a major distinction between rich and poor landholdings). The earliest settlements to be built were fortified villages situated above all in easily defended sites. The creation of this settlement network was a direct consequence of the fragmentation of the large land expanses caused by rising demographic pressures.

The main valley was not occupied until a much later date, when the region was firmly under Christian rule. This political stability of the 15<sup>th</sup> and 16<sup>th</sup> centuries allowed the appearance of new farms that saw the fertile soils of the fluvial terraces of the Noguera Ribagorçana river brought once more under cultivation. As discussed above, these farms were extremely heterogeneous because of the uneven land ownership system. At the same time (and according to some authors – Bonales 2004), a kind of ‘low density settlement pattern’ was established as a consequence of the so-called crisis of the Late Middle Ages. This led to the abandonment of many dwellings throughout that period and, ultimately, to the reorganization of the communal areas in a more balanced pattern of land use. The local authorities (i.e. the former municipalities) were responsible for the communal areas, upholding universal access (that of local families) to them. In addition to traditional forestry and livestock (pastures) uses, the communal areas ensured the subsistence of the poorest families. Here, we should stress that the traditional inheritance system favoured the eldest son as heir (in Catalan, *hereu*) over the rest of the descendants. The public interventions that occurred throughout the 19<sup>th</sup> century as first the liberal (and then the capitalist) system was introduced led to the collapse of these communal uses, above all through the process of disentanglement.

La Terreta has historically been an agricultural area in which the figure of the peasant farmer (*pagès*) has played the largest role. This means that both agriculture and livestock (particularly sheep) have formed the backbone of society. However, the infertile soils have never favoured high-yield croplands (and farming has remained at a subsistence level); moreover, land has inevitably been scarce and there has been constant competition between cropping and the needs for pasture. The main crops (principally cereals, such as wheat and barley) have largely been cultivated on non-irrigated land. Only in certain moments has irrigation farming been practised, but then it was only ever possible in extremely small plots near the main river. There have, however, been a number of attempts at building irrigation channels and so at transforming the original ‘family’ gardens into organised collectives (Tremosa 1991). Livestock farming has also been strictly limited to the requirements of each farm’s subsistence needs, based on a couple of pigs, some sheep and two bullocks to plough



the land. The farming in the area used to be dominated by the huge flocks of sheep with the farmers practising transhumance. Thus, the pasture of La Terreta was offered seasonally to host large flocks from the high Pyrenees (Tremosa 1991).

In addition to this subsistence farming system, the stability of more modern times has seen a certain degree of commercial development within the Pyrenees. The cool, humid high mountain areas require certain agricultural products (e.g. wine and grain) that only warmer, dryer regions can provide. At the same time, a demand grew in the Mediterranean pre-Pyrenees for genuine mountain products such as wool and other textiles. As a result, a modest (but functional) commercial circuit was established, based mainly on exchange. Thus, la Terreta used to boast several craftsmen dedicated to various handicrafts.

The system described above began to disappear at the end of the 19<sup>th</sup> century, and collapsed fully during the 20<sup>th</sup> century (above all in the second half). For this reason, I shall now focus on the events of that short period of time. There are three main circumstances that give us a better understanding of this rapid, irreversible turn of events in the case study area.

- **The construction of hydroelectric facilities.** The project involved the exploitation of 90% of the area's water resources to produce electricity at hydro power stations and affected the whole of the Noguera Ribagorçana basin between 1946 and 1984. The first phase was the most intensive and was sponsored by the state, then under Franco's rule. This saw the creation of the public company 'ENHER' led by the well-known engineer, Muñoz Oms (Sánchez i Vilanova 1991). The project was, in fact, an attempt to exploit the totality of the basin's energetic possibilities in a highly coordinated and organized fashion. This pioneering performance represented a veritable revolution for the region (thus, for example, the first modern road network was built) and, eventually, it supposed the opening up of Ribagorça which had for so many centuries lived in virtual isolation.

The work carried out by ENHER left its indelible mark on la Terreta in a number of ways. Two dams (and, hence, two artificial lakes) were constructed (affecting the *Escales* and also – albeit indirectly – the *Mont-rebei* gorges) and a 23-kilometre long channel was built to catch virtually all the discharge of the Noguera Ribagorçana and so the river section itself dried up. The traditional water uses (i.e. generation of electricity and irrigation) were forcibly made to disappear or had to learn to live alongside the new main agent (Tremosa 1991).

A further indirect impact of this project was the plantation of coniferous forests (see discussion above). This policy was also introduced by the state in an attempt at stopping

the reservoirs from filling with topsoil. Since many slopes had been subject to an intense deforestation process, exotic fast-growing tree species were planted to stop the loss of soils. A sizeable land area of la Terreta was affected by these plantations, and their impact continues today, as we shall see below.

➤ **The demographic decline and new trends.**

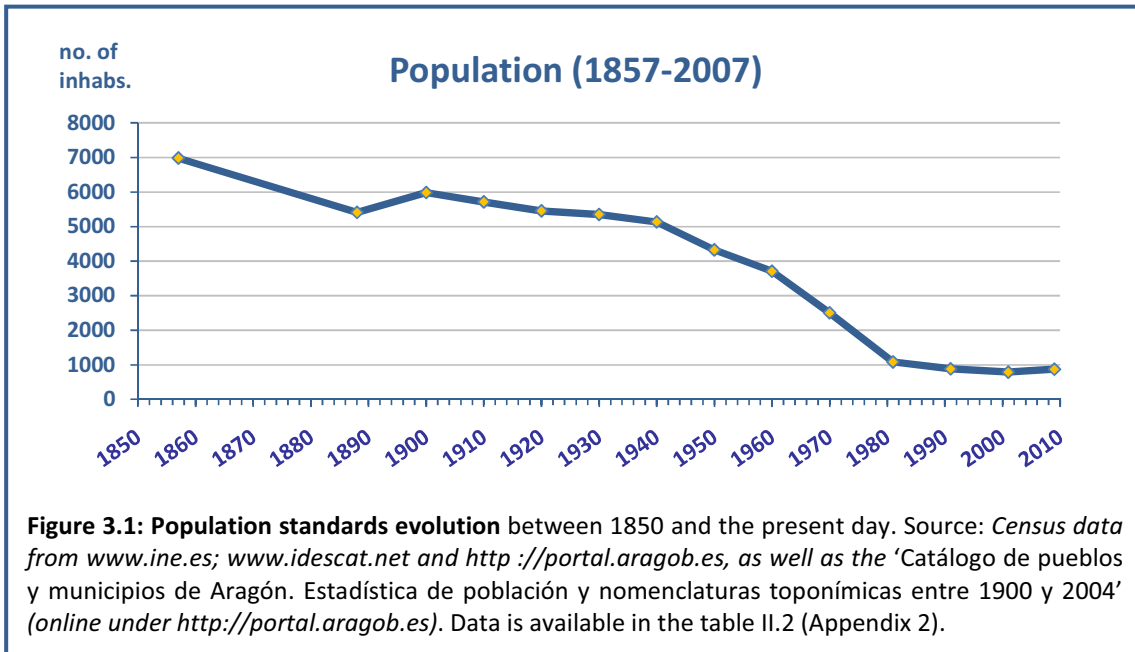


Figure 3.1 shows the demographic decline suffered by the case study area. Thus, the population fell from almost 7,000 inhabitants (coinciding with the historical population ceiling for the whole of the Pyrenees at the end of the 19<sup>th</sup> century – Vilar 1962) to less than 800 inhabitants in 2001. Although this process has been constant over the last 150 years, it was after the Spanish Civil War and, above all, on completion of the ENHER project, that population loss was particularly severe and most rapid. These additional circumstances changed the nature of the emigration process that had begun in the 19<sup>th</sup> century. When the construction of the hydropower infrastructure was complete, entire families chose to migrate towards the booming urban areas of Saragossa and, especially, Barcelona.

As can be seen in Figure 3.1, the last decade has witnessed a stemming of this trend and even a slight recovery due mainly to a significant immigrant group of so-called “rural newcomers”. The people who are settling in la Terreta are mainly foreign (usually from a range of different European countries) and make up a fairly distinct social group from that comprised by the local population. However, while this group does not tend to represent any particular interest lobby today, most of them are well integrated in the

area's social life. Yet, the tremendous gap in mentalities means the maintenance of significant differences in many areas of life (skills, life objectives, jobs, etc.).

- **The agricultural shift.** The major territorial transformations have had a marked impact on agricultural activities, bringing about a veritable shift in this sector. The consequences can be seen in two specific aspects: the changes in the nature and structure of farms; and the consequences of the gradual disappearance of the local peasantry (*pagesos*) for farm management and land ownership.

The collapse of the traditional agricultural system has led to major quantitative and qualitative changes. The amount of cropland has fallen dramatically, and at the same time the historical diversity of agricultural products has virtually disappeared in favour of the monoculture of cereal and forage crops (Daumas 1976). Livestock farming has also suffered a qualitative simplification and an intensification process in order to introduce factory farms dedicated to sheep, pigs and more recently beef cattle breeding. The demographic decline, but above all new trends in the job market, has led to a decrease in the working population dedicated to the primary sector. This has also resulted in modifications to the land ownership system, which used to be characterised by private and direct property (i.e. where the owner managed his own farm). Present-day farmers tend to work large expanses of leased land from local migrants (or their descendents). The possibilities of introducing modern farming machinery determine whether a plot is abandoned or not, and as such mechanisation has been a central factor in landscape change.

In short, the cumulative effect of all these features on la Terreta is the marginality suffered by the area today, combined with its many contradictions. As discussed above, the road network constitutes a good example of what is, in theory, a well-connected region but in which internal mobility standards are undeniably deficient. The process of diversification of the economic base of the rural areas also presents major contradictions, both in the way this diversification has been carried out and in the role played by specific policies, such as the CAP. Thus, while all agricultural activities have disappeared and the surviving farms are incapable of making a profit, tourism remains merely symbolic.

Other factors have not contributed to this process of recovery. The most illustrative example, in this sense, is the organisation of the territorial administration and its recent changes. The merger between municipalities in the 1960s and 1970s was especially intense in the provinces of Lleida and Huesca, where the former 11 municipalities making up the case study area were merged into six in a compulsory process orchestrated by the totalitarian state.

A highly problematic case, in this regard, is that of the municipality of Tremp, the largest in Catalonia, which since that time has been marked by enormous management problems owing to its geographical features. These problems are examined in subsequent chapters.

## CHAPTER 4: LANDSCAPE TRANSFORMATIONS DURING THE LAST 150 YEARS

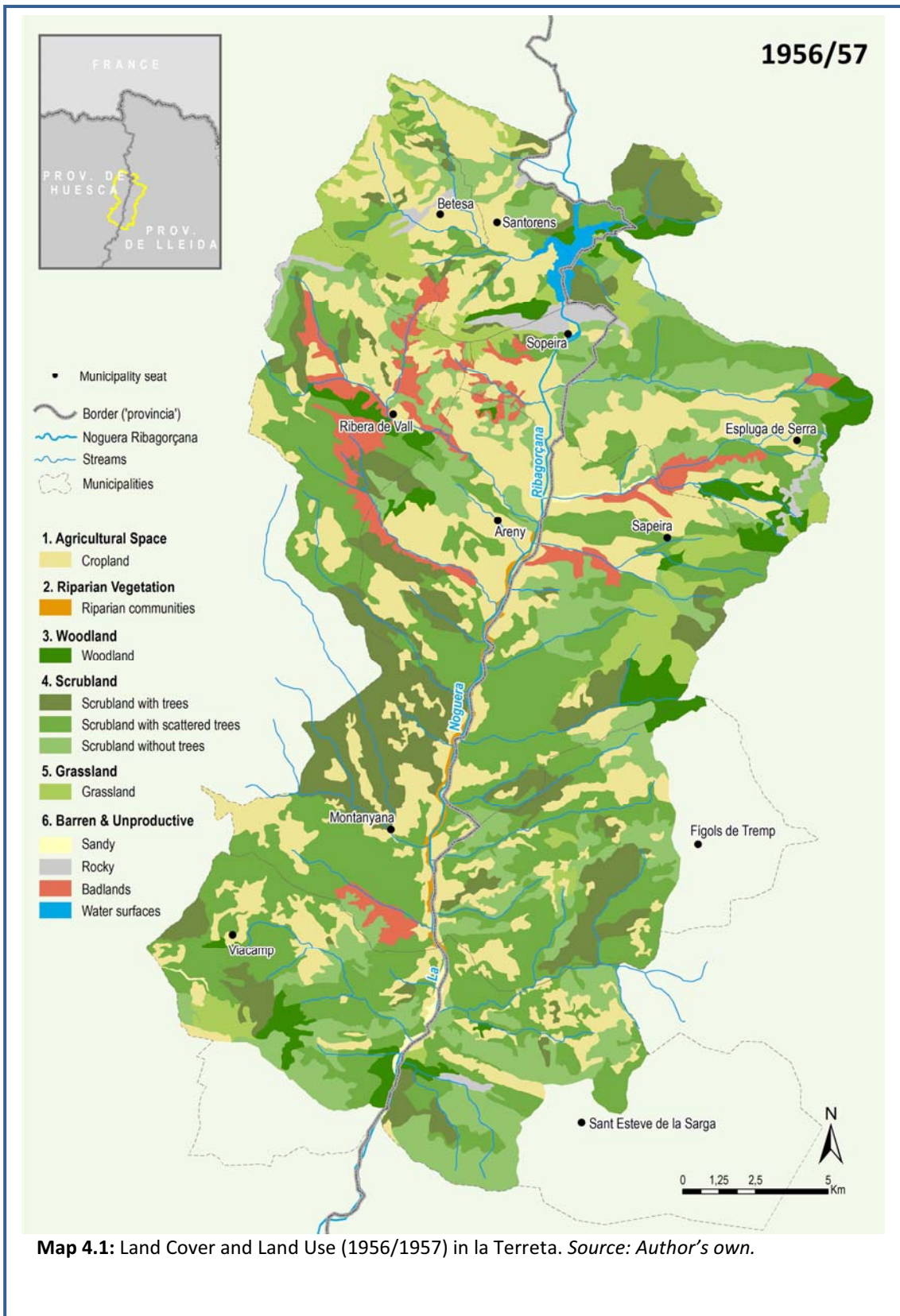
The fourth chapter in this research project constitutes the continuation (in terms of both content and aims) of chapter three. Principally, two elements are brought to the fore. First, the flexibility of the objectives in this chapter is more marked in both temporal and spatial terms, which means the adoption of certain criteria to focus the analysis on given historical periods and determinate areas. The other element to be stressed is the concept of landscape. As outlined in Chapter 2, landscape is considered the essential instrument of the cross-sectional approach to territorial studies.

### 4.1 Short-Term Landscape Changes. Monitoring the Land Use & Land Cover (1956/57-2007)

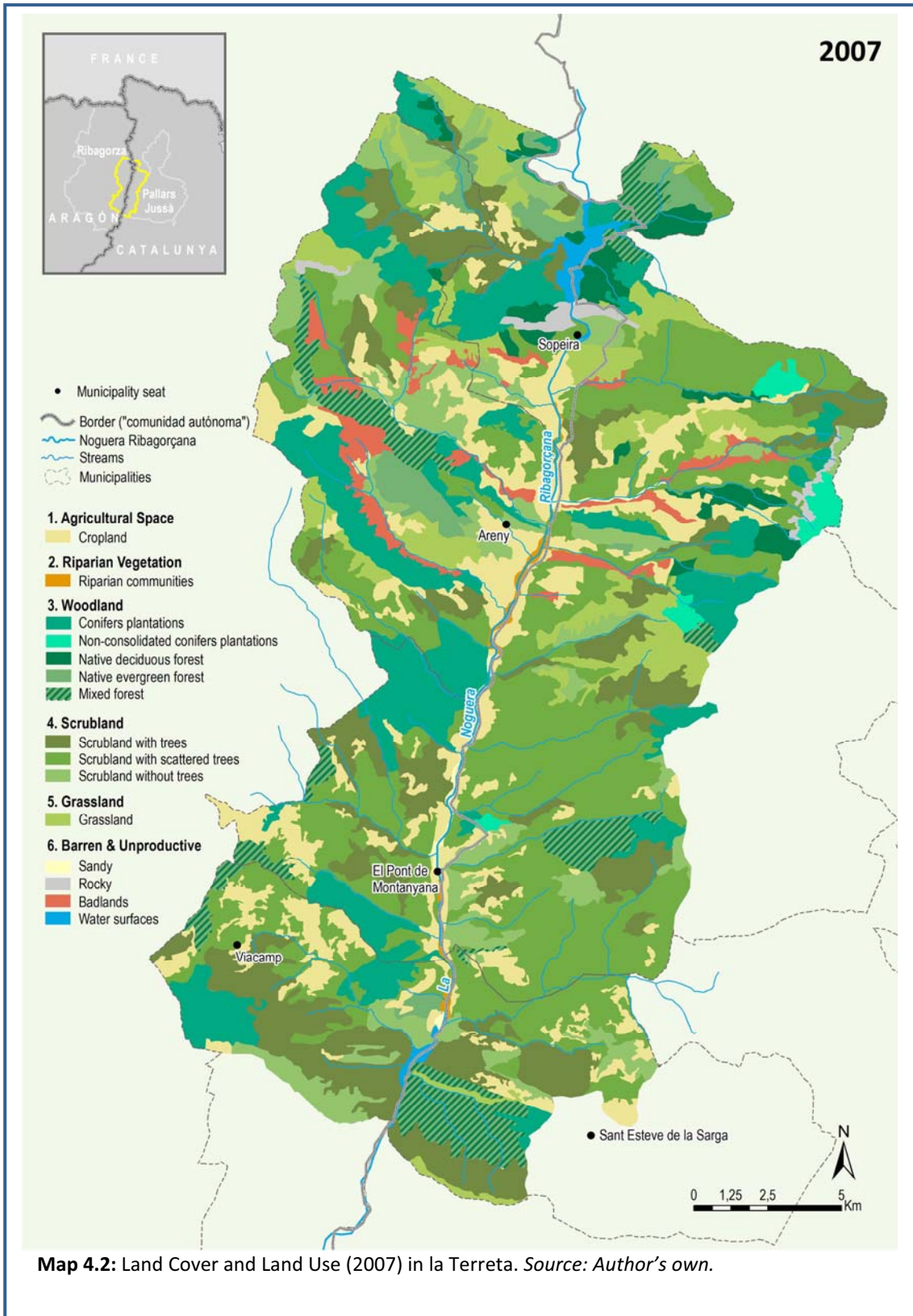
Two land cover maps, representing the whole of the case study area, were drawn in order to assess the changes that have occurred over the last 50 years [see maps 4.1 and 4.2]. This monitoring process was complemented with quantitative techniques that involved calculating the spatial nature of the transformations affecting land cover features. Thus, Figure 4.1<sup>10</sup> shows the evolution in land cover classes in la Terreta. The map highlights that the cropland surface fell from roughly a quarter of the total area to occupy less than 12% of it, while forest lands became the second largest class after scrubland (rising from 20 to 120 sq. km.). This shift raises an important question: has the increase in forestry areas occurred at the expense of cropland? Answering this question involves analysing the spatial behaviour of each land cover class. The use of our own maps as a tool to study this question allows the following conclusions to be drawn:

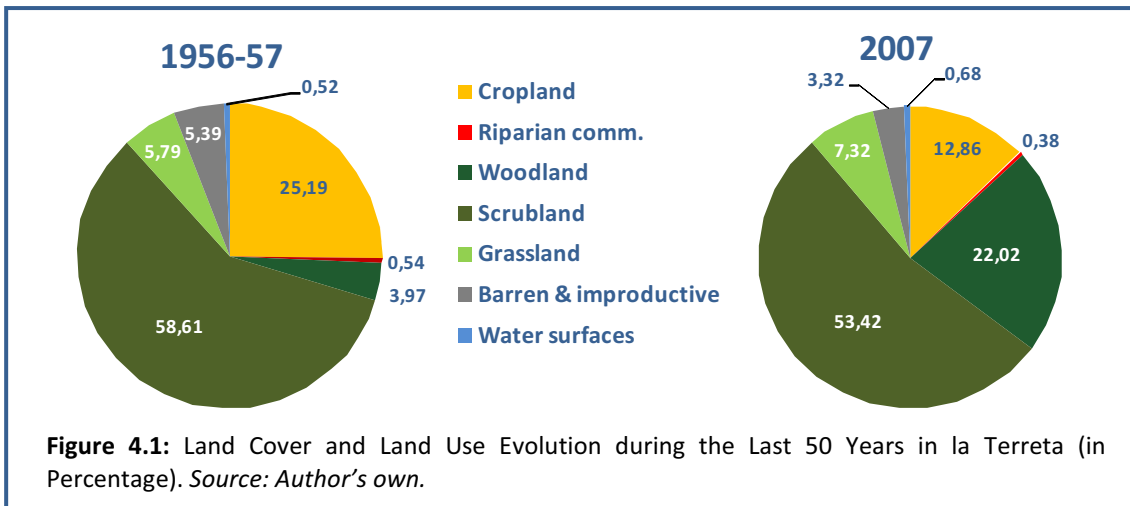
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<sup>10</sup> See also Tables III.1, III.2 and III.3 in Appendix no. 3.









- Forestry areas grew primarily thanks to new plantations that occupied former scrubland areas. The latter had been gradually deforested prior to the new plantation processes [see Figure 4.2 in the Catalan version].
- The area occupied by scrubland remained largely unchanged. However, a number of internal differences were noted in the characteristics of the vegetation, so that a certain ‘densification’ was observed. In other words, today there are more scrub communities that find themselves in a transition phase, which threatens to see them become highly degraded forest. Thus, tree species are growing, but they are in a minority compared to the bush growth. This spontaneous process of vegetation densification is the logical consequence of land abandonment [see Figure 4.3 in the Catalan version].
- Natural grassland has maintained its percentage occupation of the area as a whole; however, there has been a radical displacement [see Figure 4.4 in the Catalan version]. This is an example of land cover substitution that reflects broader land use changes. Thus, what was formerly grassland has become scrubland, because of the natural re-vegetation process following the reduction in pressure from sheep farming, while new expanses of grassland have appeared as a consequence of the abandonment of agricultural plots [see Figure 4.4 in the Catalan version].
- The spectacular decline in cropland has been caused by demographic losses. Although at first glance it might appear that the former cropland has been transformed into forested sectors, this is not strictly correct, at least if we restrict our study to those areas being farmed in the 1950s. A further outcome is the concentration of cropland along the main valley [see Figure 4.5 in the Catalan version].

## 4.2 Long-Term Landscape Changes. Observing the Transformations since the 19<sup>th</sup> Century through Selected Examples

The general analysis completed so far is complemented here by several in-depth examples that are geographically concentrated in certain significant areas. These examples seek to delve further into our understanding of the forces driving the landscape shift. Hence, they include features that make it possible to go further back in time. The aim here is to obtain evidence of past land uses. Specifically, the study concentrates on territorial processes operating during the first half of the 20<sup>th</sup> century and the last few decades of the 19<sup>th</sup> century.

The methodology adopted in assessing these areas has been inspired by the thinking of Max Daumas, a French geographer who studied the eastern Aragonese Pyrenees in the 1960s and 1970s. He devised a landscape division that identified *paysages d'interfluve*, on the one hand, and *paysages de ribera*, on the other (Daumas 1976). He then applied this basic dichotomy to his study of particular land uses focusing on agriculture and forestry (specifically, the *finage*, a French word with no direct English translation). Thus, applying this approach I selected three representative areas: two in the upland area (the *interfleuve*), i.e. the zone surrounding the settlements of Oví and Alsamora, and one in the Noguera Ribagorçana valley (the so-called *ribera* or *rivera* in Catalan).

In the main valley, two different cases were analysed – the fluvial terraces south of the village of Areny; and, the whole valley sector belonging to the municipality of el Pont de Montanyana. The latter corresponds to the area shown in the maps included in Map 4.3 [see the original Catalan version].<sup>11</sup> These maps were drawn from aerial photographs, as well as from a map drawn by a former hydro power company seeking to construct a dam in this sector. Their map provides an accurate reflection of the area's land use in the first few decades of the 20<sup>th</sup> century<sup>12</sup>. Four main transformations have been detected in this area:

- a) Morphological changes in cropland derived from its homogenisation (both in terms of crops and forms – the collapse of stone walls).
- b) The decline in the irrigation infrastructure and practises in parallel with the disappearance of certain crops (almond trees, olive trees, vineyards and vegetable gardens – *horts* in Catalan).

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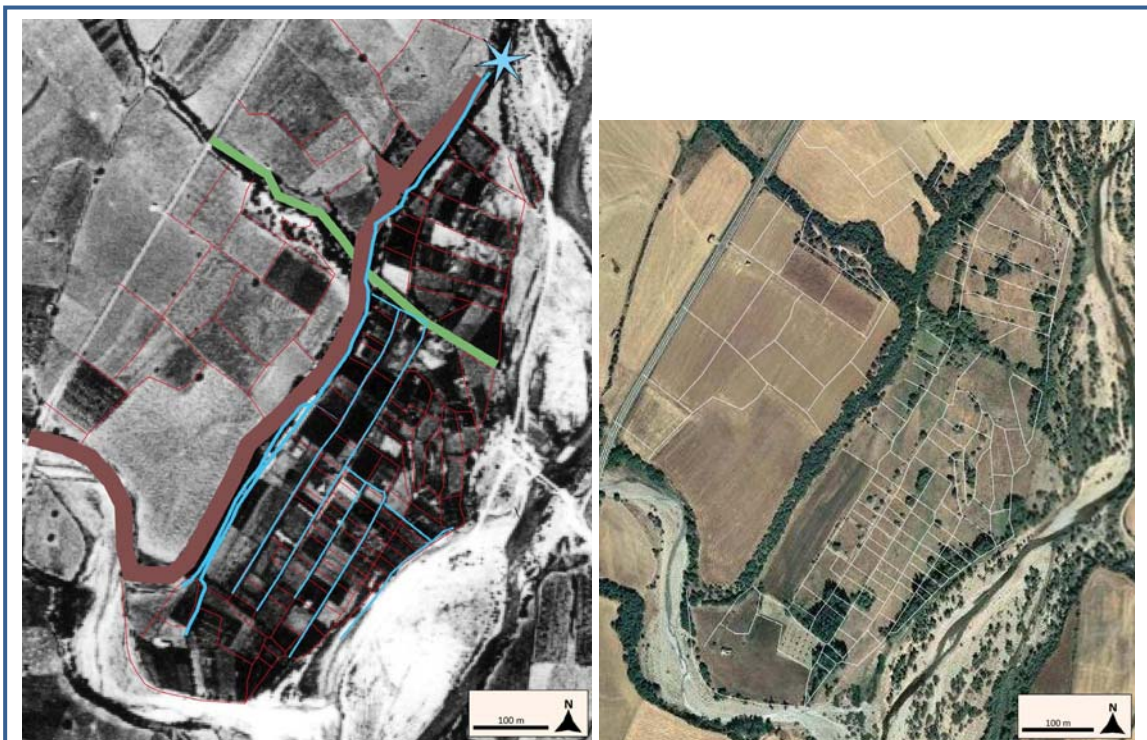
<sup>11</sup> This map could not be exported to the English version due to a technical problem.

<sup>12</sup> The map is entitled '*Plano parcelario del Embalse de Montrebei*'. For more details see Sancho Reinoso, A.: *Aigua, paisatge i cartografia. Una interpretació en clau geohistòrica del Plano parcelario del Embalse de Monrevey, de Riegos y Fuerza del Ebro*. Barcelona: Institut Cartogràfic de Catalunya [In press].



- c) The simplification of the network of tracks, including the gradual disappearance of the sheep tracks.
- d) The radical change in the fluvial basin as a consequence of the construction of the aforementioned 23.5-km long channel. This had a marked impact on the river flow and, hence, the evolution of the riparian communities.

The second case takes us some 10 km to the north, specifically to a place known as ‘Partida del Soto’, in the municipality of Areny. This place comprises a system of fluvial terraces and is illustrative of the critical landscape difference between dry and irrigated agricultural lands in the *rivera* environment. As Figure 4.2 shows, a sophisticated irrigation system was built in the ‘lower’ (in terms of altitude) terrace. This made it possible to harvest a relatively large expanse of fruit and vegetables (the so-called ‘horta’). The terrace was then divided up into tiny plots, one for each family in Areny. Today, the irrigation system has been completely abandoned and the infrastructure has collapsed.



**Figure 4.2:** The Soto in 1956 (left) and in the present day (right). *Source: Aerial photography, orthophotomaps and Daumas (1976) and Spanish Rural Cadaster (online on <http://sigpac.mapa.es/fega/visor/>).*

Both cases provide revealing stories of the introduction, development and eventual abandonment of irrigation activities and facilities in the Modern Era. However, a number of different factors today determine whether the dream of recovering this infrastructure will remain just that, a dream (the case of Areny), or whether, by contrast, it is a realistic project (the case of el Pont de Montanyana). Further details are provided in Chapter 6.

A considerable distance separates the two *'interfleuve'* areas (with Alsamora being situated in the southern Montsec Range, and Ovis lying on the slopes of the Cis Range to the north). Despite this distance, the two share many features in common, especially the fact that they are upland areas conditioned by their geological features and (more relevantly) both have been forced to adopt a different water management system to that used in the lowlands. A study of Alsamora [see the maps in Figure 4.3] reveals the following:

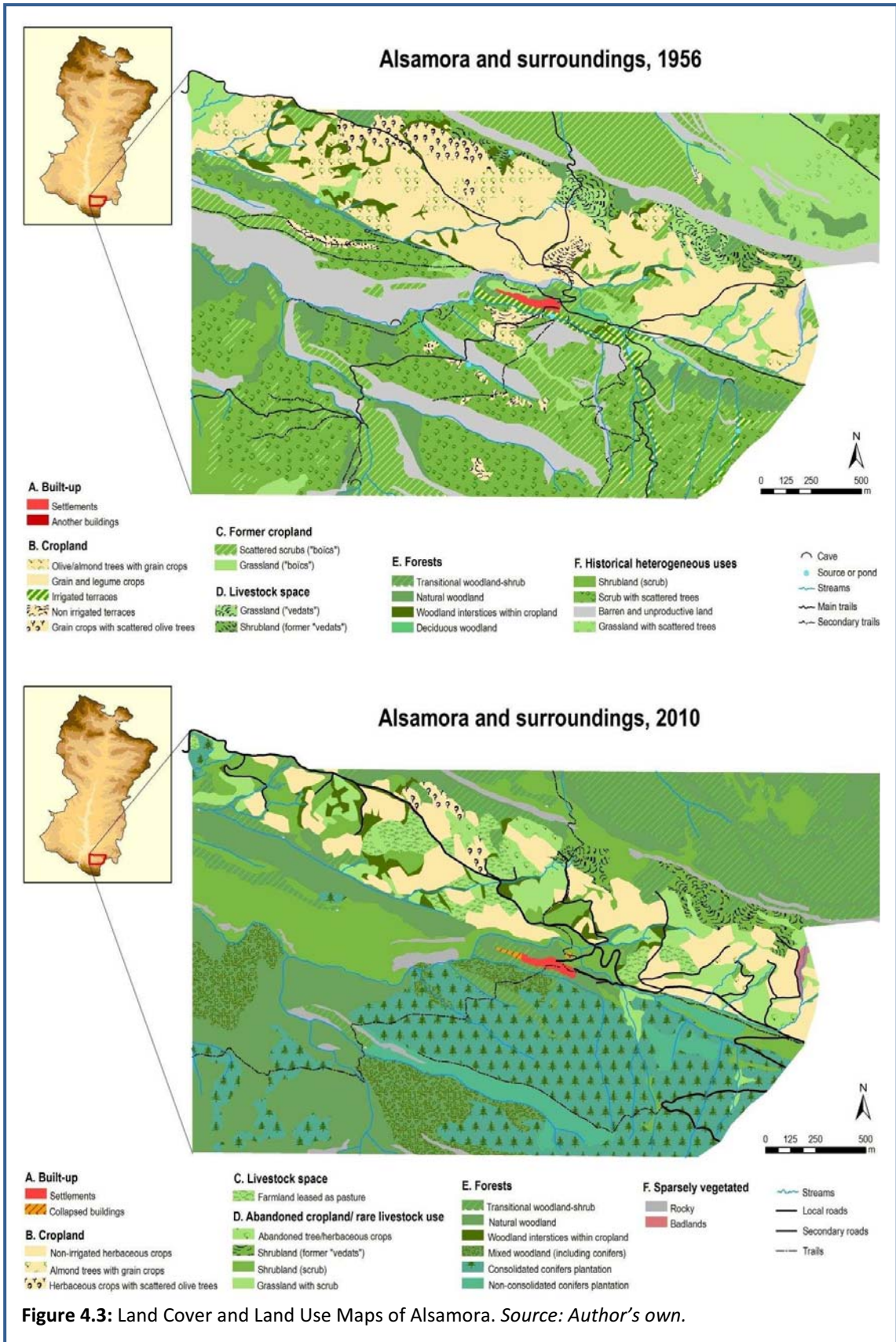
- a) The changes in its cropland (on the sunny slopes of the area) are the consequence of a major shift in management that involved crop simplification (grain and forage monoculture) and in individual farming practices because of rising demographic pressures. Thus, today there remains just one local farmer working the land in this area. Certain areas previously dedicated to pasture have been completely abandoned, while former cropland has been converted to pasture.
- b) By contrast, the shady slopes were historically occupied by forestland. However, the whole area has undergone a major transformation, more marked than that suffered by the cropland. The sector lying in the south has undergone a biomass boom reflecting both the natural re-vegetation process and the plantations introduced between 1970 and 1975. Meanwhile, the north (an area known as 'La Seuva') has remained as scrubland since the end of the 19<sup>th</sup> century, as shown on various maps<sup>13</sup>.

On the shady slopes of the Montsec Range going southwards, another feature is worth highlighting, namely, the former plots of cropland. All along these slopes, two kinds of plot can be observed: on the one hand, permanent terraced plots, most located by streams or sources of water that made irrigation possible (*'horts'*), some of which were still in operation as late as the 1950s [see the 1956 map in Figure 4.4]. On the other hand, sporadic cultivated sectors located in the uplands and farmed only at certain times when the local population increased in number (the so-called *'boïcs'* –Bonales 1999).

- c) The network of tracks has, of course, largely disappeared due to the growth of the vegetation; however, certain tracks have been recovered as part of an initiative for their use as tourist routes.

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<sup>13</sup> See Map III.2 (Appendix no. 3).



In the area surrounding Ovis [Figure 4.4], on the other hand, we see that:



a) The land use pattern that remained until the 1950s was extremely diverse (both spatially and temporary). This meant an extremely well organized rotation of crop and sheep farming. Due to its relatively high altitude (Ovís is located at 1,275 m.a.s.l., while the crests of the Cis Range reach 1,800), the area was well suited to the growing of potatoes and cattle farming (in addition to sheep). By contrast, there were few areas of forestland, but they had an obvious importance for providing wood and food for livestock. The riparian communities flourished along the streams. The amount of pasture was also important, some privately owned other collectively (belonging to the families of Ovís). Landmarks, such as stonewalls and milestones, marked the limits of each plot and are good indicators of the nature of the ownership system.

Other features of the landscape include the now abandoned seasonally irrigated plots which occupied a small area along certain streams; a relatively dense track network (including an important sheep track that wound its way through the Cis Range); and the Pyrenean *bordes* (a kind of hut in which both livestock and shepherd would seek temporary shelter).

b) The current image of this area is the direct result of several processes: first, the complete disappearance of agricultural land and a radical shift from intensive pasture farming to a low pressure pattern (cattle have disappeared and the only sheep still existing serve merely to slow down the re-vegetation process). Plantations of conifer trees have also acquired a prominent role in the current landscape. What had been a communally owned slope was roughly replanted between 1958 and 1966, and this saw the colonisation by two secondary tree species (*Pinus uncinata* and *Pinus sylvestris*). The state did not buy any land here and it has remained in the hands of local families; however, forestry exploitation has not been possible, for one reason or another, and so the plantation has brought no profit at all.

In short, the case of Ovís demonstrates that the land use pattern remained barely unaltered until the 1950s. However, certain historical sources (including the census or the 'inventory' carried out in the 19<sup>th</sup> century by the Minister Madoz) identify a number of small changes occurring as early as the second half of the 19<sup>th</sup> century and affecting certain activities (e.g. the distribution of crops and temporary pastures), but leaving others untouched (e.g. the forests remained very small in terms of their extension).

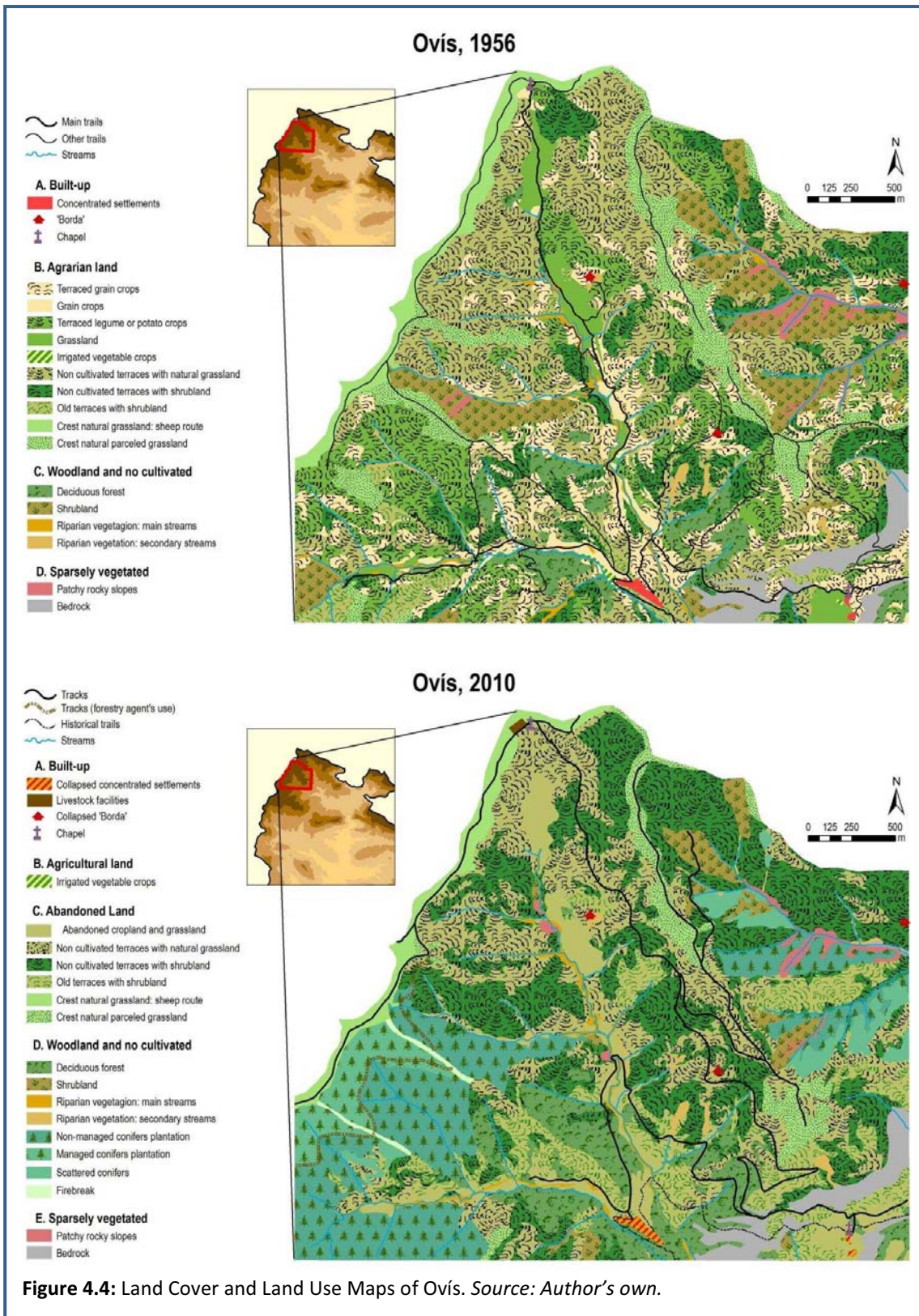


Figure 4.4: Land Cover and Land Use Maps of Ovis. Source: Author's own.

### 4.3 The Current Shape of the Landscape

The last section of this the fourth chapter seeks to undertake an assessment of the current landscape of the case study area. As discussed earlier in the theoretical framework, the concept ‘landscape’ can be used with several different connotations and this fact serves to highlight its transversal character. In this chapter, this is taken into account in conducting an analysis of what can be described as a ‘landscape of abandonment’. This claim is based not only on the area’s physical features but also on certain intangible qualities that are described below.

The landscape assessment begins from the data acquired in the earlier sections, i.e. the evolution in the land cover and land use patterns over the last 150 years. Three general trends can be described in order to steer the overall discussion:

- A gradual and progressive, but not booming population growth during the 19<sup>th</sup> century.
- A general cropland spread, implying both an itinerant and a permanent agricultural use.
- An intensification of human-based pressure over forest.

Similarly, Table 4.1 identifies several features of the land use at four points in history, while Map 4.3 describes the land cover and land use during the final decades of the 19<sup>th</sup> century. While this map is perhaps not as accurate as the others (Maps 4.1 and 4.2), given that it is based on speculative data [see Chapter 1], it endeavours nevertheless to provide a plausible interpretation of the historical landscape.

	Mid 19 <sup>th</sup> century	End 19 <sup>th</sup> century	Mid 20 <sup>th</sup> century	Present day
Population (no. of inhabitants)	6.981	5.410	3.708	840
Population density (inhabs./sq km)	13,7	10,6	7,3	1,7
Cropland (ha)	20.997 (8.195+12.802)		12.802	6.537
Forest (ha)	ca. 4.270		2.016	12.076
Available land per capita (ha/inhab.)	7,28	9,39	13,7	60,76
Available cropland per capita (ha/inhab.)	3,01	3,88	3,45	7,78
Available forest per capita (ha/inhab.)	(mín. 0,61)	0,79	0,54	14,38

**Table 4.4:** Some indicators about the historical land use. Source: Author’s own based on data from census of 1857, 1888, 1960 (as well as the 2007 register) and from the maps 4.1 and 4.2.

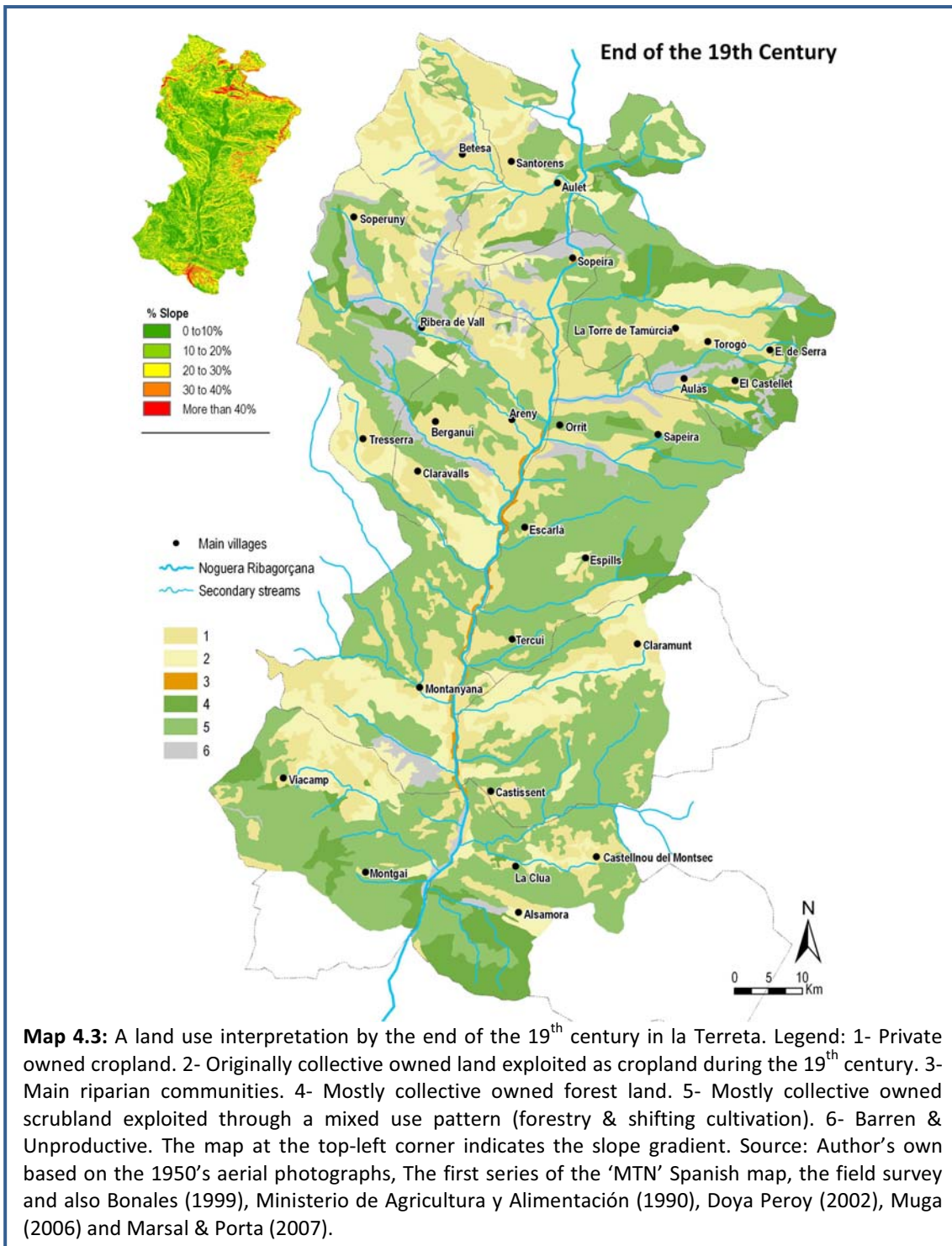
Map 4.3 captures the aforementioned duality of the landscape: the main valley (*rivera*), on the one hand, and the uplands (*interfluvis*) on the other. Thus, the area still under cropland (i.e. class no. 1) is mainly situated along the fluvial terraces of the Noguera Ribagorçana. Apart from constituting the most fertile plots, they have been managed historically as essentially the private plots of the richest farms in the area. By contrast, the uplands used to host a

heterogeneous group of uses. The former cropland (class no. 2 on the map) was cultivated by the middle-class or the poorer farms. Not all this cropland was private; some of it remained in the public domain. Nevertheless, over the 19<sup>th</sup> century many sectors underwent a gradual 'privatization' process linked to the so-called *desamortizacions* (the disentailment enacted by the Spanish liberal government). Because of their soil characteristics, these sectors were clearly more impoverished than those lying at the bottom of the valley. Thus, crop yields were considerably lower in the upland areas. These sectors are most likely those that were brought under cultivation as a consequence of the demographic growth of the 18<sup>th</sup> and 19<sup>th</sup> centuries.

On the other hand, the green areas corresponding to classes no. 4 and no. 5 [Map 4.3] corresponded most closely to collectively-owned forests. An extremely diverse land use pattern developed throughout the 19<sup>th</sup> century, including forestry (timber), pastures and sporadic cropland (Bonales 2005). Despite this variety, the woodland was overwhelming in that period, probably occupying an area that was at least twice what it was one hundred years later [see Table 4.4]. Several data sources (both quantitative and qualitative) have been used in making this calculation:

- Historians, such as Vilar (1964), have reported a general demographic recovery in Catalonia (including the Pyrenees) starting in the 18<sup>th</sup> century and gaining strength in the following century.
- Many first hand witnesses, working in the main for the Central Government (including Patiño and Madoz), have described the area (i.e. the western Montsec Range) during that period and have stressed the presence of certain features, including the scarcity of woodland.





Although these witnesses declared that there was sufficient timber to meet the needs of local families, a progressive and sizeable deforestation process was already underway. This process, in general, was not linked to the 'privatisation' of forests as was the case in other areas of the Huesca province (Sabio 1997), and as has been outlined earlier<sup>14</sup>. However, the 'public utility forest catalogue' (CUP in Catalan) included only 6% of the total area of la Terreta

<sup>14</sup> See Chapter 3.

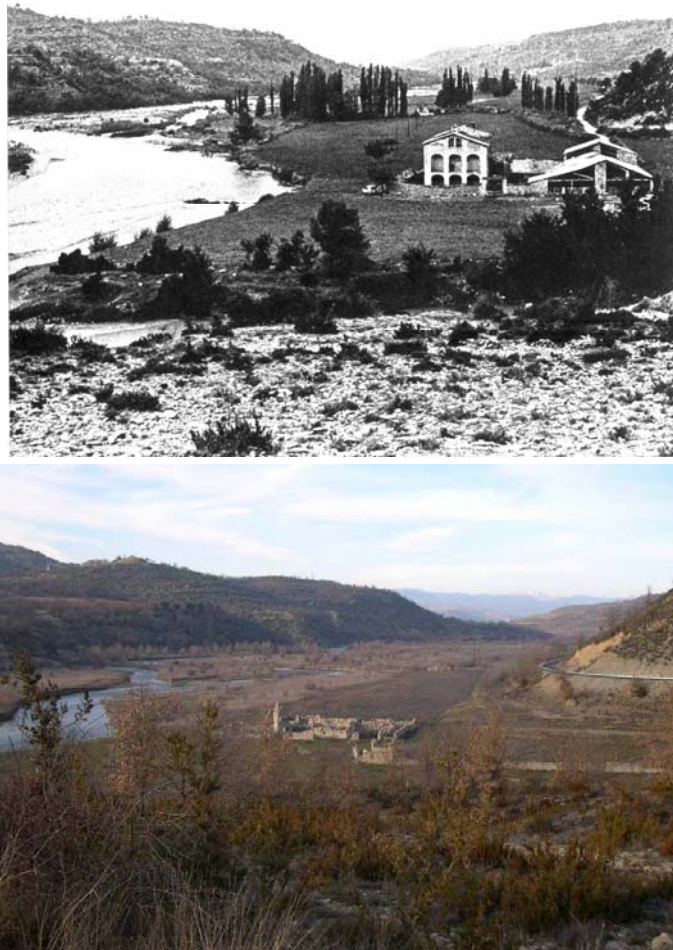


and so failed to prevent some areas falling into private hands. Given that this catalogue was used in compiling Table 4.4, there are presumably some inaccuracies in the data (so that the area occupied by forests was likely to have been larger in the mid- and late-19<sup>th</sup> century).

On the other hand, the forest areas that were not included in the *CUP* were certainly purchased by local collective groups. This enabled the collective practices that had existed before disentanglement to be continued; yet at the same time it also ushered in a major legal shift (i.e. not all local individuals were now able to act as owners, as only those families that belonged to the 'owners society' enjoyed legal rights of access to the forests). Although this change meant that the old and the new legal statuses were now compatible (Bonales 2005), in the long term, the general legal, political and economic changes in Spain led to the collapse of this system of collective forestation in la Terreta and in many other mountain areas (Sabio 1997). Furthermore, at this time many charcoal burners appeared in la Terreta to exploit the holm oak forests planted between 1920 and the 1950s. This group of workers came from different parts of Spain and managed to undertake a profit-making activity, but they were undoubtedly largely responsible for the subsequent disappearance of the woodland areas.

According to Boserup (1964), la Terreta never surpassed the limit of what was considered a pre-industrial society (i.e. 1.5 ha per capita), even when it recorded its highest population density at the end of the 19<sup>th</sup> century. However, here we need to adopt a more accurate model in order to determine the exact history of the area. It is well-known that the difference between the wealthiest and the poorest farms was a determining factor, as was the institutional shift that affected Spain throughout the 19<sup>th</sup> century. Indeed, a number of families suffered extreme conditions of poverty during that period. Such was their need that they were allowed to appropriate the collective forest areas in order to ensure their subsistence. Only when the conditions allowed them to do so did they emigrate in an exodus that also involved the richest families (as they also suffered the consequences of the collapse of commerce in the Pyrenees).

The outcome on the territory can ultimately be analysed through the changes to the landscape. In this context in which profits could no longer be made, the landscape rapidly disintegrated. The earlier pattern comprising the 'valley and uplands system', and which had integrated both rich and poor, progressively deteriorated into a system without management [see Figure 4.5] due to the transformations of the 19<sup>th</sup> century and the radical changes after the 1950s. This example is illustrative of the 'dark side' of the highly inefficient urbanized territories, typified for instance by the Barcelona metropolitan region (Marull *et al* 2010).



**Figure 4.5:** Mont-rebei farm is a good example of a collapsed rich farm in the Noguera Ribagorçana valley. 'It is said that Mont-rebei used to be the richest and strongest estate (...) northwards from the Montsec Range, and that its properties climbed up to the highest crests. It had two mills, servants and shepherds, and seven hundred acres of good land. (...) It was a house that was able to keep, but «did not know how to expand itself», according to the locals who still remain in the area' (Obiols 2007: 300) [Author's own translation]. Source: Up: Vallverdú & Sirera (1976). Down: Author's own (on february 2007).

This chapter takes into consideration different conceptions of landscape, as discussed earlier in Chapter 2. As such, the landscape can also include a non-tangible element that is often related to artistic representations which, according to Roger (1997), result in a double process of 'artialization' (both 'in situ' and 'in visu'). In order to assess the 'in visu artialization' of the landscape in la Terreta, literary descriptions and artistic representations were taken into account. For reasons of language, the passages analyzed have not been translated into English, but are available in the Catalan version.

Seen in this light, the marginalisation related to these representations of landscape can also be detected. Three circumstances illustrate this claim: first, there are virtually no literary descriptions that refer to the name 'Terreta' to identify the mid-section of the Noguera Ribagorçana valley; second, in these descriptions typically the valley ('rivera') landscape

appears but never the upland areas (perhaps, because the former are more attractive, while the latter have little to reward the gaze of the outsider); and, third, the majority of the descriptions in the Noguera Ribagorçana valley were made by enlightened travellers who, in most instances, only journeyed in the upper valleys. A minority did come down the river and offer descriptions of the landscape in the Mediterranean area. Among these few writings, a number of specific places are systematically mentioned because of their spectacular nature, for example, the Escales gorge. This place has inspired poems, paintings [Figure 4.6] and even given rise to certain mystical elements (such as the 'Cos Sant' legend in the village of Sopeira).



**Figure 4.6:** A disappeared landscape in the Escales gorge. *Left:* 'Escales', by Joan Subirà. *Right up:* a photograph taken before the construction of the dam, in the 1940's. *Right down:* the current aspect of the place. Source: *Left:* Sànchez i Vilanova (1991); *author's own* (May 2009).

Indeed, on the Catalan side of la Terreta, mystical features (including landscape metaphors, legends and local folklore) have been intensively collected by various authors (Obiols 1995; Coll 1997, Obiols 2007). But also in Areny (the main town in the whole area and situated on the Aragonese side) a local artist, known as 'Llonguet', should be mentioned (Barrull 2000). This figure has described the major changes that have affected his village so dramatically in his drawings. Indeed, over the last few decades many works have borne witness to the collapse of this traditional society. Thus, the descriptions of travellers visiting abandoned settlements are a recurrent theme. Many stress the sadness and sense of nostalgia created by stories that are doomed to disappear (Tort 1998). On the other hand, the rural 'newcomers' are restoring many of these dwelling places and some are today occupied by artists who paint landscapes, and carve out sculptures or other handicrafts.

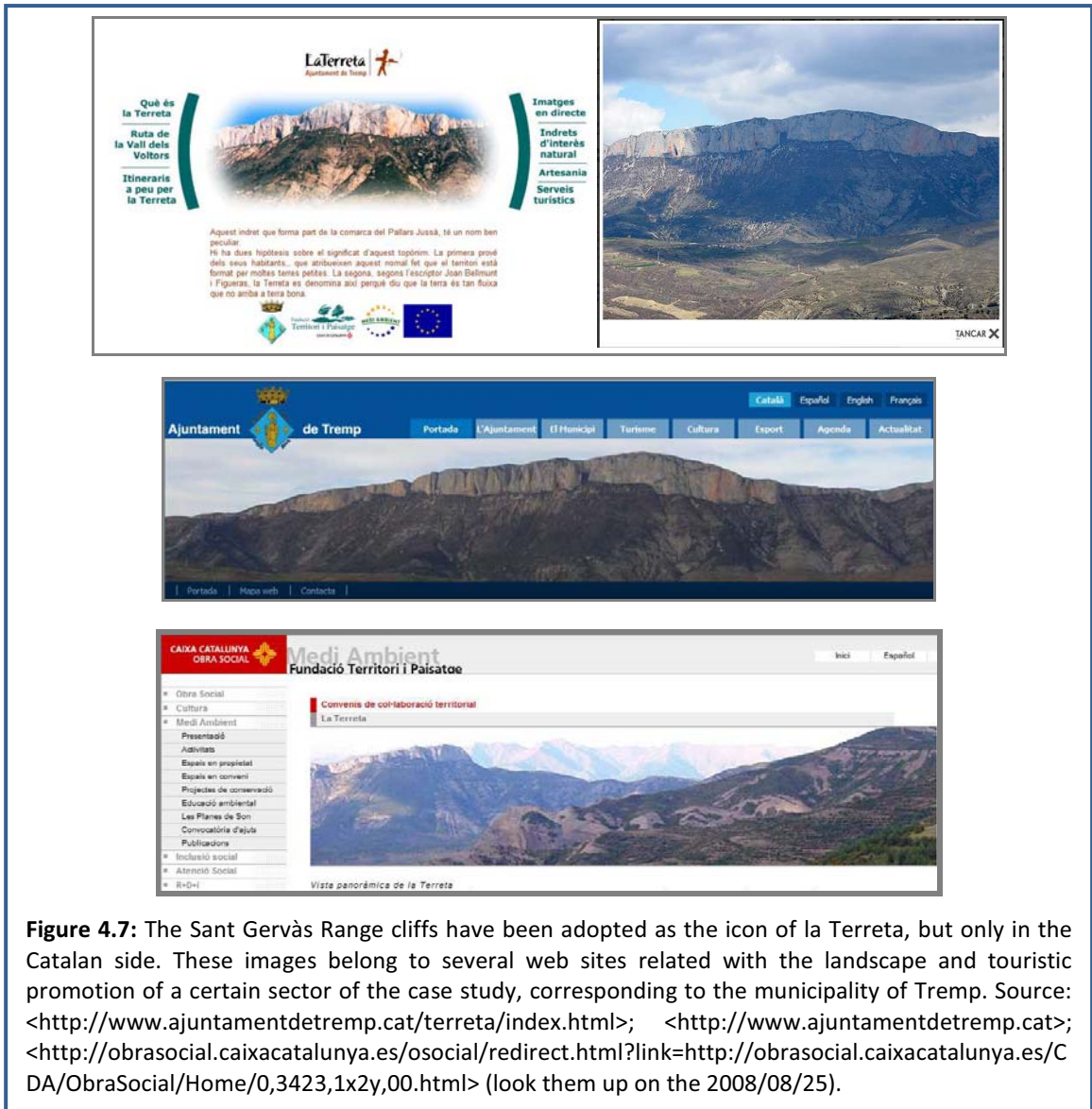
Closely related to this, an analysis was undertaken of how the landscape is perceived by official institutions. Here, we detect the beginnings of a process of 'reconstruction' of the image of the landscape among these agents. This process is characterized by:

- a) A rejection of the traditional duality represented between the landscapes of the 'rivera' and the 'interfluvi'. Rather, today an administrative duality has been imposed coinciding with the regional border between Aragon and Catalonia.
- b) An external prominence, i.e. the actors steering this process are often alien to the local society.

This leads to the conclusion that the '*artializations*' have been barely taken into consideration by the institutions and that the landscape is perceived by most public authorities as something that needs to be managed through the application of laws and planning tools. In this sense, in 2005 the Catalan Government passed a specific piece of legislation whereby the case study area was divided into three different landscape units within the 'Alt Pirineu i Aran' area. In this area, the government is now fostering a specific management tool (i.e. its 'landscape catalogue'). Meanwhile, in Aragon, the Government carries out its landscape mapping procedures. Each district ('*comarca*') receives its own map. Both projects are still very much on going .

In addition to the institutional appreciation of the landscape, we have also included a brief piece of research that seeks to identify the conception of landscape used by the agents that have a direct impact on the territory. The best way to assess this is by observing the various tourist leaflets containing information about places in la Terreta. This information often mentions the landscape as an attractive tourist element, especially in recent years. The image of the landscape, however, is linked above all with nature; moreover, it is apparent that the landscape is treated as a contextual element with little value in itself, albeit related to 'nature's treasures'.





**Figure 4.7:** The Sant Gervàs Range cliffs have been adopted as the icon of la Terreta, but only in the Catalan side. These images belong to several web sites related with the landscape and touristic promotion of a certain sector of the case study, corresponding to the municipality of Tremp. Source: <<http://www.ajuntamentdetremp.cat/terreta/index.html>>; <<http://www.ajuntamentdetremp.cat>>; <<http://obrasocial.caixacatalunya.es/osocial/redirect.html?link=http://obrasocial.caixacatalunya.es/CDA/ObraSocial/Home/0,3423,1x2y,00.html>> (look them up on the 2008/08/25).

On the other hand, the promotion of this area for tourist purposes has resulted in many interesting features: the Sant Gervàs cliffs, for example, have been adopted as the symbol of la Terreta by many Catalan institutions [Figure 4.7], while in Aragon no one speaks of 'la Terreta' be it in tourist leaflets or via the internet. A number of tourism brands have been created to promote the area, but the landscape does not, we believe, play any central role in them.

## PART III: TERRITORIAL POLICIES AND THEIR IMPACT ON THE CASE STUDY AREA

### CHAPTER 5: TOOLS AND ACTORS INVOLVED IN THE PLANNING OF MID-MOUNTAIN AREAS

The aim of the following pages is to describe and analyze the impact of factors related to the implementation of planning tools in the case study area. This implies a significant shift in approach to that adopted in previous sections. Thus, in this (and the next) chapter, a marked change in focus takes place, whereby the public management of the case study area comes under analysis rather than its territorial features (presented in Part II). Here, therefore, the spatial scope is extended from the local to the national level. In fact, what is presented is a multi-scale approach so that we might observe the implications of planning activity at the regional level on the municipalities, as becomes evident in the following four sections. Moreover, this chapter also includes the second case study (the *Metnitzer Berge*), and as such a comparative approach is introduced in order to observe the planning differences in the two areas.

#### 5.1 The Legal and Administrative Context

Before turning to examine the planning tools and the implications of their use, it is necessary to consider the legal foundations which underpin their application. These foundations are determined, in turn, by the territorial organization of the state, and by the jurisdictional authority derived from it.

##### 5.1.1 The Territorial Organization

The organization of a state's territory (i.e. its internal administrative divisions) is a key factor in all countries, since it determines the relationship between the state and its citizens (Tort 2006). Yet, major differences can be detected between the states of Spain and Austria (where our two case studies are situated); thus, while the debates are still heated in the former, in the latter they are today largely irrelevant.

In Spain, the 1978 Constitution paved the way to a new decentralized State. Seventeen autonomous regions (*Comunidades Autónomas*, in Spanish) were constituted. They were endowed with the same legal shape, but their internal differences (in terms of their historical, social, cultural and political features) were obvious. Here, we are concerned solely with just two autonomous regions; Catalonia and Aragon, and with their internal administrative divisions. Since the 19<sup>th</sup> century the decentralisation movement has been linked to Catalan

political aspirations of self-determination or, at least, to obtain recognition of their uniqueness within Spain. During the 2<sup>nd</sup> Spanish Republic (in the 1930s), the *Generalitat* (the Catalan Government) divided the region into *comarques* (or districts). This division was widely accepted both socially and politically and was, thus, recovered in the 1980s: the 41 present-day *comarques* were therefore created by the *Generalitat*. But the debate concerning these internal divisions has yet to be laid to rest. The most illustrative example, in this sense, is that of the *veguerías*, i.e. another tier of internal political division. Here, in contrast with the *comarques*, there is no consensus on this matter. Meanwhile, Aragon has also initiated a process of ‘*comarcalization*’, but there are marked differences with the Catalan experience. In Aragon there had been no previous internal divisions of any importance, so the process could take a ‘bottom-up’ approach. This meant creating *comarcas* from the express will of the municipalities to associate. Consequently, many *mancomunidades de municipios* (‘municipal commonwealths’) were created. But, the Aragonese Government considered that the *mancomunidades* did not truly embody the general process of decentralisation (Salanova Alcalde 2006), as they did not extend over all the territory. So it was decided to promote the *comarcas*, with each requiring a specific act of creation, and it became the task of the municipalities to purpose each *comarca* (and not the Government’s as it had been in Catalonia). Today, Aragon has 32 *comarcas* that extend over all the territory, with the exception of the metropolitan region of Saragossa.

In Austria, a federal republic was set up after the break-up of the Habsburg Monarchy. In line with the 1920 Constitution (*Bundesverfassung*), the state comprised nine federal states or provinces (*Bundesländer*). The territorial division was completed with the current 2,357 *Gemeinden* (municipalities) and 15 *Stadtgemeinden* (cities with their own status). Since the municipalities have the right to self-government (Schindegger 1999), Austria has a three tier political division (the nation – *Bund*, the federate states and the municipalities). Although the system is relatively stable, it has come under question in recent decades. But unlike Spain’s autonomous regions, disputes tend to concern the conflict of powers between the *Bund*, the *Bundesländer* and the *Gemeinden*, rather than the possible regionalization within a certain *Bundesland*. In this sense, the only valid administrative units are the 84 political districts (*Politischen Bezirke*), which enjoy considerable popular support, but (unlike the Catalan and Aragonese districts) they have no powers of self-government.

Most of the problems related to territorial organization tend to manifest themselves at the very local level (i.e. that of the municipalities). Spain and Austria both provide many examples of this. In both cases, the number of municipalities has gradually fallen over the last two centuries following intensive processes of merging during the 1960s and 1970s (Ganyet et



a/ 1984; Lichtemberger 2002). In the 1980s this process came to an end and since then the number of municipalities has stabilized and even grown. In Spain, the autonomous regions have competence over the organisation of their local divisions, but despite some attempts to introduce far-reaching reforms (such as proposals presented by the Catalan Government), no general strategy has been assumed other than that of fostering associations of municipalities (*mancomunidades*). In certain Austrian provinces (such as Carinthia), the dynamics of the municipalities has been remarkable (Brunner 1991), but the dominant current trend is to foster associations as well.

### **5.1.2 The Authorities' Territorial Jurisdiction**

One of the main implications of state territorial organization is that it determines the public authorities' jurisdiction. In this section, in which a further examination is undertaken of the cases of the Spanish and Austrian regions, these features can best be summarised as follows. In both Spain and Austria, jurisdiction can be distributed into three basic categories: first, those aspects over which the State has power to legislate and implement specific measures; second, those for which the basic legislation is enacted by the state but whose application is the responsibility of the *Comunidades Autónomas* (in Spain) and *Bundesländer* (in Austria); and, third, those powers that are assumed entirely at the regional level (both legislatively and in terms of their implementation).

As can be seen, the political structure of the two states has certain characteristics in common: both are decentralized states in which the regions enjoy a fairly broad range of powers in jurisdictions that are of their exclusive concern. Yet, at the same time, there are also fairly significant differences in their respective national constitutions and the instruments applicable for regional self-government. Thus, the Catalan and the Aragonese statutes of autonomy are lengthy documents that not only provide for jurisdictional distribution of powers between the state and the regional government, but also describe in detail all features pertaining to each field of jurisdiction. By contrast, the Styrian and Carinthian statutes (*Landes-Verfassungsgesetz*) simply enumerate their fields of jurisdiction without describing them. Here, it is perhaps worth stressing an important aspect regarding the historical development of these two states. Thus, in Spain prior to the enactment of its Constitution no autonomous region had yet been created, in Austria the Constitution was passed in a state in which the *Bundesländer* were already well established territorial units. In other words, it is essential to bear in mind the centralist structure in place in Spain up to 1978, and to contrast this with the

fairly well consolidated decentralized system that had been in operation in Austria since the end of the Habsburg monarchy.

### **5.1.3 The Legal Context of Territorial Planning**

The jurisdiction over territorial planning, in terms of legislative power and its implementation, is assumed by the regional governments in both Spain and Austria. Moreover, neither the Spanish nor the Austrian state governments can legislate in this field, which leaves the regions with full responsibility (though it should be borne in mind that the state governments do have jurisdiction over certain areas that have a critical impact upon the territory, including the national highway network and the water management of basins extending over more than one region). For this reason the regional territorial planning acts are of considerable relevance in the four contexts analysed here.

Catalonia's Territorial Policy Act (passed in 1983), which provided the planning tools to implement the territorial regulations, remains in force today. However, the planning tools have gradually evolved so that the incidence of the act has been reduced. Aragon's Territorial Plan was passed in 1992, but it has since been replaced by a new act passed in 2009, the intention of which was to adopt the principles of the European Spatial Development Perspective (ESDP). However, it has yet to be implemented.

The Styrian Spatial Management Act was first passed in 1974, and subsequently modified on several occasions (the last amendment being made in 2010). The act regulates both local and regional planning. In the latter instance, it provides for the implementation of 'regional development programmes' (*Entwicklungsprogramme*), with either a sectoral or a cross-sectional character. In Carinthia, the Spatial Management Act (passed in 1969 and renewed in 2001) has a number of features in common with the Styrian act (including the regional development programmes), but it makes no provisions for local planning.

## **5.2 Planning at the Regional Level**

This section presents the planning tools available to the four self-governing regions in which the two case study areas are located. Before describing each case individually, two major differences between the Spanish and the Austrian regions should be highlighted. Thus, first, while the Catalan and Aragonese plans are pure planning tools, the Styrian and Carinthian plans are more specifically management tools; and, second, the mountain area (specifically the Pyrenees) is singled out for special treatment in the two Spanish autonomous regions, while in

their Austrian counterparts there is no special treatment for the Alpine sector (given that it covers virtually all of the area).

The Partial Territorial Plan for the *Alt Pirineu i Aran* is one of seven partial territorial plans provided for under the General Territorial Plan for Catalonia (PTGC). The plan covers the Western Catalan Pyrenees (including the Pallars Jussà district [see map 3.1]). It provides for a basic zoning classification: open spaces, mobility infrastructures and urban settlements, so that the whole of the area is strictly classified. The document itself is divided in two main parts: first, a territorial diagnosis in which the area's internal diversity is recognized and its main problems and challenges are set out; and, second, three main goals are then identified in line with these challenges and in keeping with the basic zoning. Further zoning categories are established for the urban hierarchy (with settlements being assigned a function according to their rank and role in the area of location) and the open spaces (with three levels of land protection being implemented).

The Aragonese Government has also passed a specific planning tool for the Aragonese Pyrenees – the Partial Territorial Planning Guidelines, which affect four districts, including Ribagorza [see map 3.1]). These Guidelines are the result of decades of experience attempting to provide for the legal protection of a particularly weak area that faces major environmental challenges. The document comprises a report, a collection of strategies and a set of binding guidelines. The report recognises the problems of this mountain area, as well as its internal heterogeneity; the strategies provide for basic lines of action in mountain agriculture, infrastructure and protected areas, while the guidelines develop the latter into more specific measures. Despite obvious similarities with the Partial Territorial Plan for the *Alt Pirineu i Aran*, here in Aragon no zoning classification map was drawn up and so the links with local planning are weaker.

The Styrian and Carinthian management tools have many features in common. Thus, both regional governments seek to foster an internal regionalization that determines the specific setting for their territorial planning tools in two senses: first, their geographical extent, and, second, their basic characteristics (as described above, these tools constitute regional management tools rather than classic territorial plans). However, a number of differences should be highlighted in the two cases. In Styria, a Western Upper Styrian region (comprising three districts, including Murau [see Map 1.4]) has been defined as one of the seven planning regions by the *Land's* main spatial development programme. In addition, a regional development project affecting the whole region was published in 2008, but it is not legally binding. The project proposes six main lines of action and it enjoys the support of a regional executive committee and a regional assembly. By contrast, in Carinthia the general

management tool (affecting the whole *Land*) is still being developed, and (to the best of our knowledge) it does not provide for any specific regional tool (apart from those tools already implemented at the district scale [*see below*]). The ongoing process of regionalisation in Carinthia is concerned exclusively with implementing the EU regional development program, the LEADER initiative. Note that the case study area is partially located in the 'Kärnten:Mitte' region, which includes the Sankt Veit an der Glan district.

## 5.3 Planning at the Local Level

This section examines local planning tools and the authorities' performance at this local scale. More specifically, two levels are considered here: that of the municipalities - which enjoy a similar status in Spain and Austria; and that of the districts, where several significant differences are to be found from one country to the other in terms of their specific territorial planning. Thus, the Catalan and Aragonese *comarcas* (or *comarques*, in Catalan) are self-governing districts with some weak jurisdictional power over planning issues, while the Austrian *Bezirke* are non self-governing territorial authorities, although regional planning tools do extend to the area of the districts (at least in Styria and Carinthia).

### 5.3.1 Catalan and Aragonese Districts

Both the Catalan and the Aragonese districts have a wide jurisdiction over territorial and town planning. However, there are considerable differences in the respective legal instruments they employ and in their day-to-day running of the territories. Indeed, the districts of Pallars Jussà (in Catalonia) and Ribagorça (in Aragon) highlight these differences. The former is one of the ten mountain districts recognised by law in 1983. This means that most of the Government's actions are channelled through specific 'mountain district plans'. These tools have been in operation since 1990, but in the intervening years they have been radically transformed, as has the agency that administrates them. Thus, today the plans serve as an inventory of the Governmental departments' actions. The current plan (2009/2012) has even been drafted as the only document with validity for the ten mountain districts. If we observe the distribution of the plans' budget (both the current one and the previous plan), the overwhelming importance attached to investment in physical infrastructure is more than evident<sup>15</sup>.

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<sup>15</sup> See Figure 5.1 in the original (Catalan) project.

In the case of the district of Ribagorza, the theoretical development of its own jurisdictional powers in terms of territorial planning has failed to materialise fully. The reason for this lies in the fact that the process of decentralization from the Aragonese Government has yet to be completed, as the districts were established just about a decade ago (for example, Ribagorza's statute of creation was passed in 2002). The full agenda of jurisdictional powers has been divided into two groups in line with a specific procedure for their eventual transfer by the Government. Thus, today the authorities in Ribagorza only execute certain jurisdictional powers, albeit that these are not solely limited to the powers in the 'first transfer group'. This seems to highlight the flexibility of the process as well as the complexity of the procedures available to this district. Here again, the budget distribution of this authority shows a prominent investment in social services<sup>16</sup>.

### **5.3.2 Styrian and Carinthian Districts**

The Styrian district of Murau is the area in which the territorial development programme is being implemented. This planning tool puts into practice the recommendations of the regional development programme [see section 5.2]. The current version of this tool (passed in 2009) comprises a set of legally binding regulations, maps identifying the zoning classification and a report. The regulations establish a five-category classification system comprising 'green zones', 'settlement zones', 'raw material priority zones', 'agricultural priority zones' and 'industrial and commercial priority zones'. The report focuses on three specific aspects of the regulations: the settlement areas, areas suitable for fostering economic development and free spaces. The report merely provides general performance guidelines, delegating the role of a more precise classification to the municipalities.

In the Sankt Veit an der Glan district (in Carinthia), the regional development guidelines were passed in 2006 in cooperation with European budget funds, but are not legally binding. The guidelines highlight the significant internal differences between low-lying areas (near the capital city, Klagenfurt, and its urban area) and the uplands (where our case study is situated), the latter suffering a marked process of marginalisation. Apart from this, the area raises a number of issues regarding the district's general situation (marked by a number of disadvantages): its basic settlement structure (in which a principal network of infrastructure and facilities is proposed for the whole district); its economic structure (in which the relocation of industrial and commercial facilities is proposed in order to provide a better equilibrium for the district, together with the development of soft tourism and direct marketing to improve

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<sup>16</sup> See Figure 5.1 in the original Catalan project.

agriculture and forestry); its transport system; landscape management; and water resource management.

### **5.3.3 Municipalities**

Below we analyse planning at the strictly local level. A comparison of the rural contexts in Austria and Spain reveals few points in common, as the following report of the municipalities in La Terreta and Metnitzer Berge reveals.

In la Terreta, none of the six municipalities has its own planning tool, each relying on generic regulations that contain basic urban zoning, but which are devoid of any development strategies. However, this is set to change in the near future as the majority of these municipalities are currently in the process of introducing their own development plans. The municipalities of Tresp and Areny have taken the furthest steps in this process, with their plans already drafted. Tresp's urban development plan is of particular relevance to this case study, given the size of the municipality and its past and current problems related to the fact of having to provide public services to the municipalities that merged to form the larger municipality in 1970 [see Chapter 3]. The entire municipality is to be regulated by a zoning system that distinguishes between consolidated urban areas and undeveloped open areas. The plan adopts the hierarchical zoning system from the partial territorial plan for *Alt Pirineu i Aran* [see section 5.2]. In addition, the plan will adopt a specific management strategy (including measures regulating communal equipment and/or public infrastructure services) for each village. These actions are also to be programmed in certain dispersed settlements, albeit that they are considered undeveloped open areas.

Areny's development plan differs slightly, because of the municipality's general structure (Areny fulfils the role of a services centre) and a number of uncertainties that the plan needs to take into account (including the A-14 highway construction project [see Chapter 6]). However, the plan is modest and unlike Tresp's no individual treatment is afforded to the various settlements that make up the municipality. In its place, there is a basic zoning plan and a classification that stresses the importance of Areny and also of the recently developed suburb of Campament, lying close to the historic village. The other settlements are simply demarcated as consolidated urban areas. In this plan, no special treatment is to be afforded to the open areas, and no strategy has been proposed.

The urban planning of the Austrian municipalities presents a number of common regulatory features. These, in fact, apply nationwide, regardless of any internal differences, which depend principally on the legal status of each province (for instance, Carinthia has

enacted specific regulations providing for planning at the local level, while in Styria there is just one territorial planning act, which applies regardless of the scale of action). The common urban planning tools are three: a 'local development strategy' (*Örtliches Entwicklungskonzept*), a 'land use plan' (*Flächenwidmungsplan*) and a 'zoning plan' (*Bebauungsplan*). They are arranged hierarchically, whereby the development strategy prevails over the land use plan and both prevail over the zoning plan. However, the zoning plan provides for more precise mapping and specific resolutions. Within the five municipalities making up the second case study area, two of them (Metnitz and Laßnitz bei Murau) were selected so as to analyse their local planning tools. They constitute neighbouring municipalities that share the same regional border; however, they differ in many aspects. The specific measures proposed by their planning tools are described in the Catalan version [see Tables 5.3 and 5.4 in Chapter 5].

## 5.4 Beyond the Territorial Plan. Various Actors Performing in the Case Study Areas

The last section in the present chapter is of a slightly different character to the rest, as it examines a group of actors that formally operate outside the planning processes. However, they have a certain incidence on the territory because of their performance. Among them two types of actor can be distinguished: governmental and non-governmental.

### 5.4.1 Governmental Actors

Five different kinds of actor of governmental character were selected to make up this first group. The selection was based on the desire to present and assess those institutions with a certain responsibility for coordinating functions. Two examples involving actors that execute such functions in the field of territorial planning are the Austrian Conference on Spatial Planning (ÖROK) and the Institute for the Development of the *Alt Pirineu i Aran* (IDAPA). The former is a Federal Government body whose job it is to coordinate the actors' performance in territorial planning (*Bund, Bundesländer* and *Gemeinde*) nationally. One of its main tools is the 'Austrian Spatial Development Concept' (ÖREK), a report that is drafted every ten years. Interestingly, the ÖROK is an advisory body only and its decisions have no binding authority. The IDAPA, by contrast, seeks to foster the development of this mountain sector of Catalonia by bringing together various sectoral policies, as well as by participating in the drafting of the area's spatial planning tools. Eight years after its creation, the body has basically served as a subsidising agency, while its role as a decision-making body would seem to have been gradually shelved.



In recent decades, the EU's regional development policy has made efforts to provide coordination tools for rural areas. The well-known LEADER initiative is one such tool that has enjoyed a prominent presence in the two case study areas. In la Terreta, there are three Local Action Groups (LAGs) that administer a LEADER project, although only one (the *CEDESOR* affecting the Aragonese area) has had any real impact and then only in certain sectors (specifically rural tourism). In the Austrian case, there are two LAGs, corresponding to the two provinces. Interestingly, the *Holzwelt Murau* project has striven to adopt a truly 'bottom-up' approach (which has not really been achieved in the other projects).

At the local level, cooperation efforts have been significant given the difficulties the municipalities face in order to guarantee basic services and infrastructure facilities. The local association of *Ribagorza Oriental* on the Aragonese side of la Terreta has been discussed above. Elsewhere attempts have been made to provide alternative tools of cooperation such as the *consorcis* in the Catalan municipalities. These initiatives have focused on certain natural or landscape resources, but none of them to date has had any great impact.

Recently, a specific cooperation programme at the local level was initiated among 14 municipalities in the Ribagorça region (both in Aragon and in Catalonia). This was possible thanks to recent legislation and planning tools provided by the Spanish Ministry of the Environment and Rural and Marine Environs (MARM). In order to administer the funds, a public association was created by these municipalities. The body's capacity to perform is high, given its lack of legal personality, but this status also entails a certain negative impact: so while the project is set to run until 2012, there are no guarantees as to what will happen when this time expires.

Finally, mention should be made of a local cooperation project in Styria (the *Kleinregionen*) affecting four municipalities. The project was an attempt by the provincial government to promote the sharing of certain public services within municipalities. To this end, many *Kleinregionen* were created throughout Styria, two of which directly affect the municipalities studied here: 'Murta' and 'Greibenzen'. The two have markedly different characteristics, but both face difficulties in achieving their objectives of local spatial planning (i.e. finding ways to share strategies that can foster new industrial or service facilities).

### 5.4.2 Non-governmental Actors

There are various actors without any formal links to the political authorities in both study areas; however, here a particular focus is given to four such actors operating in la Terreta. The most prominent of these has arguably been the *Fundació Territori i Paisatge*, a land trust organization run by a Catalan savings bank whose strategy is to acquire properties in order to manage them in accordance with their own principles, or alternatively to become a partner so as to bring their influence to bear on the management of alien properties. However, the current financial situation of the bank has forced it to downsize the foundation's role to the extent that the latter no longer exists as a separate body becoming instead one of the savings bank's welfare projects. This has obviously affected the performance of the former foundation, which currently owns a 600-acre plot in the Mont-rebei gorge and is involved with the management of a 20,000-acre expanse in the municipality of Tremp. While the means have changed, the goals have not, and the outcomes on the territory should not be underestimated.

The *Xarxa de Custòdia del Territori* is a land-stewardship network operating principally in Catalonia which aims to introduce new values as regards nature and land conservation. It seeks to achieve this by involving individuals in these tasks through stewardship agreements between owners and 'stewardship entities'. The network is closely linked to the former *Fundació Territori i Paisatge*, which was one of its founding fathers. The municipality of Tremp plays a leading role in this network, and several stewardship agreements have been established there. In fact, the agreement between the *Fundació Territori i Paisatge* and the council of Tremp should be included under this heading. The *Xarxa de Custòdia del Territori* is still consolidating its role and one of the fields in which it is particularly active is territorial planning. In this sense, it has reported the general criteria for implementing land stewardship agreements as planning tools.

The IPCENA is the most influential environmental organization in la Terreta and it is particularly active in two areas. First, in organising social protest movements against certain infrastructure projects affecting the region (including a high tension power line and a reservoir near the Mont-rebei gorge [see Chapter 6]); and, second, in managing the wildlife reserve of Mont-rebei (owned by the former *Fundació Territori i Paisatge*). The current crisis afflicting the land trust organization, as well as certain personal conflicts involving the leader of the environmental organization and the public authorities, have led to the end of IPCENA's direct influence over the reserve.

Finally, mention should be made of several actors belonging to different social interest groups (including cultural and residents' associations). Despite the demographic problems

affecting the area, there are several residents' association that organize cultural and social events (especially during the summer). The growth in the number of the so-called rural newcomers has also contributed to the expansion of these social movements with the reappearance of various social protest movements. Elsewhere, the work of the cultural association, the 'Centre d'Estudis Ribagorçans', should be highlighted or disseminating scientific and non-scientific knowledge of the the Ribagorça region.

## **CHAPTER 6: IMPLEMENTING TERRITORIAL POLICIES. SOME SELECTED EXAMPLES**

This chapter aims to complete the overview provided in Chapter 5, but it seeks to achieve this by adopting other means and by shifting the focus somewhat. Thus, an analysis is undertaken of the performance of certain policies implemented in la Terreta - so this area once more takes centre stage and the secondary case study is discussed only at the end of the chapter. In this way the aim is to capture the 'real' impact of public policies beyond the claims of institutional discourse. This aim has also determined the selection of cases, since the contents of each partial policy are not exhaustively analyzed (as can be inferred from the above title). These specific cases were chosen according to their relevance to the area and taking into account those policies that explicitly affect and shape the territory. Thus, as is evident, the focus taken in Chapter 5 is significantly changed, becoming more subjective in the present chapter. However, the territorial planning tools are not excluded from the discussions in this chapter, appearing where appropriate.

### **6.1 Rural Development & Agricultural Policy**

#### ***6.1.1 A Complex Institutional Framework***

The CAP is undoubtedly the main rural development and agricultural tool within all EU-member states, and as such its outcomes deserve prominent analysis. The last major overhaul experienced by this policy received the name of *Agenda 2000*. Herein lie the foundations of the two main pillars dominating current CAP strategies as well as the 'decoupling' strategy, which achieved full status recently. As a result, all farm subsidies are no longer linked to a farm's revenue; on the contrary, these subsidies are now 'single farm payments' and depend upon the 'cross-compliance' conditions that relate environmental, food safety and animal welfare standards. As for the second of the main pillars, it is dependent in Spain upon the regional governments. For the period 2007-2013, every autonomous region has to implement

its own rural development plan (PDR). The so-called 'mountain farming subsidies' (ICM) also form part of this second pillar.

The introduction of a new sustainable rural development act in Spain seeks to establish a common, nationwide rural development policy. The act provides for a national, sustainable rural development program (PDRS) for the period 2010-2014. A number of multilateral committees involving both the MARM and the Agricultural Departments of the autonomous governments are currently being established in order to discuss the 'partial plans' in which the strategy must be implemented. However, the regional PDRs continue to be the main tool although they are quite similar, at least in the cases of Catalonia and Aragon. The measures programmed are the same, and the only aspect which differs to any degree is the economic funds assigned.

Yet, certain spatial plans discussed earlier also include regulations that affect agricultural activities. For example, the PTPAPiA establishes 'special protection spaces' that include 'high value agricultural soils'.

### **6.1.2 Two Mountain Agricultural Policy Programmes**

The first programme involves the application of the '*Contracte Global d'Explotació*' (CGE), an agreement between the public authorities and farm owners which integrates all public subsidies into a single grant and which incorporates a commitment from the farm owner to fulfil certain conditions within a given period of time. The contract seeks to encourage farmers to carry out a project in which environmental, economic and social developmental concerns can be integrated. In short, what is sought is to encourage the region's farmers to become entrepreneurs. A similar programme has been applied in France and on the island of Menorca, while in Catalonia it was first introduced in 2005, becoming more widely adopted by 2007. However, the Department of Agriculture has been obliged to create two different options, one of which does not precisely adhere to the original philosophy of the agreement as the farmer does not have to commit himself to a five-year-long enterprise strategy. This modification was the result of several factors which have led to the virtual breakdown of the tool, because of the lack of true cooperation between farmers, public authorities and the sector's trade unions.

In la Terreta, most farmers have opted for the simplified version of the CGE. According to the farmers and local sector leaders, they have been motivated in this choice by the complexity of the bureaucratic requirements and the weakness of the union role, but the main factor has been the uncertainty inherent in the farming activities themselves and the

inflexibility of the agreement, being more suited to large farms than small mountain holdings. A particular example is described in Figure 6.1 [*see the Catalan version*].

A second programme of interest is that involving irrigation projects in certain marginal mountain areas. This is a complex area, since the rights of access to water are strictly controlled by national agencies (in the case study area, the Ebro water resources management agency - CHEBRO – has the authority). Here, other spatial operations, such as land consolidations, need to be taken into account as they are closely linked to irrigation projects. However, their execution is relatively straightforward in areas of highly fragmented land ownership such as the pre-Pyrenees. In fact, the Catalan government is currently seeking to implement two land consolidation plans in the Pallars Jussà district; however, neither of them affects la Terreta. In Aragon, the Government is fostering a special programme in its attempts to introduce irrigation as a means of promoting certain social (as opposed to economic) goals in marginal areas.

The last few years have witnessed two major initiatives to recover or to extend the network of irrigation channels in la Terreta. A successful project was completed in El Pont de Montanyana, where a local farmer recovered an abandoned channel [*see chapter 4*]. This project represents a gain of some 80 acres of potentially irrigable land, but it does not involve any land consolidation. Both the Catalan Department of Agriculture and the ADRR provided financial support for the project. Elsewhere, attempts to expand the irrigation system in Areny met with failure - the last attempt being undertaken just last year as part of the Aragonese Government's initiative to promote 'socially oriented irrigation projects'. Here, land consolidation is first required and this has proved an insurmountable hurdle, because of the complexity of the local situation. The land affected by the expansion of the network comprises a series of tiny plots belonging to almost 200 different owners. The farmers that still work their land are the only ones with any real interest in the project, but they are in a minority. Moreover, many of the owners are emigrants (or descendants of them) and do not live in the village anymore, although they typically maintain some links with it.

## **6.2 Forestry & Protected Areas Policy**

### ***6.2.1 Environmental Protection Tools and their Development***

Of the area occupied by la Terreta, 37% is protected, which corresponds to almost 20,000 acres [*see Table V.1 in Appendix no. 5*] in six separate areas. Five of these belong to the European *Natura 2000* network, and the sixth is a wildlife reserve. Thus, none of the areas are natural or national parks as such, but rather what we term 'low-intensity protected spaces'. Although the areas receive the same level of protection, in some aspects their management by

the regional governments does in fact differ. For instance, the two *Natura 2000* areas in Catalonia also form part of Catalan Natural Protected Areas (PEIN). Like the *Natura 2000* Network areas, each PEIN area has its own management tool. Moreover, the spatial planning tool PTPAPiA classifies all PEIN areas within a specific zoning regulation. In Aragon, attempts have been made in recent years to establish their own regional network of protected spaces, but to date this only includes the natural parks (and not any other protected areas, which should gradually be added, though delays are forecast). Thus, in Aragon the *Natura 2000* areas do not receive any specific legal treatment (including the two areas in la Terreta). Beyond these differences, one common feature should be highlighted, namely the fact that none of the areas (be they in Aragon or Catalonia) have any kind of management tool as demanded by law.

However, the main difference between the Catalan and Aragonese areas is that in the former a number of private stakeholders (discussed in Chapter 5) are involved in the management of natural areas. These players do not act like the public authorities, since their greater presence means they wield more influence over the territory than the latter. This is true in at least two areas: the Catalan side of the Mont-rebei gorge and the area lying in the municipality of Tremp.

The Catalan side of the Mont-rebei gorge lies within a larger protected area occupying the Catalan sector of the Montsec Range. Given its singular nature within the general geographical context, natural park status has been proposed for the mountain range on more than one occasion, but all attempts have failed. However, the gorge itself is protected by several regulations operating both in Catalonia and Aragon. Unusually the Catalan side has been owned by the aforementioned private foundation belonging to a savings bank (formerly known as FTP) since 1999. The reserve is managed under a management plan and a marked conservationist philosophy. Yet, the gorge is the main tourist attraction in the region (c. 40,000 visitors per year). The environmentalist association, IPCENA, had a presence in the reserve until 2009, when the FTP broke off the relationship for economic reasons. This decision has been responsible for the ongoing conflicts involving IPCENA. As a result, the impact of the management tool has suffered a declining influence.

The situation in the second area is somewhat different. This zone, known as the 'natural area of la Terreta', occupies 20,000 hectares and is a protected area. In this instance, a local development draft agreement was drawn up by the Council with the support of the FTP (both actors signing an agreement in 1999). As a result, the FTP drew up a management plan containing the strategic measures for implementation. Although these measures presented a fairly marked cross-sectional character, after a decade they acquired an overwhelmingly

tourist focus. The most significant measures are today related to alternative forms of tourism (e.g. bird watching). In parallel, a number of land trust agreements have been established in the area and included in its future local spatial planning tool. In 2009, however, the former FTP withdrew its commitment to la Terreta for what were primarily economic reasons, although it might also have reflected its frustration at failing to re-introduce a particular species of wild goat to the area. This project had been considered crucial by the FTP, but a number of political issues could not be overcome.

### **6.2.2 Forestry in la Terreta: A Complex Issue**

This section examines the public forest areas mentioned earlier in Chapter 3 and stresses that their management today is far from being a simple issue. Here again we examine both the legal and management tools provided by the national and regional forestry acts, and find that there are marked differences in the practices either side of the regional border. This difference primarily involves their respective management tools, which are considerably more developed in Catalonia than in Aragon (where certain geographical and social factors hinder forestry management). In fact, in Aragon there are no specific forestry plans at any territorial scale (be it for the whole region or its districts) and its territorial planning tools do not provide any specific regulations as in Catalonia. The only aspect they have in common concerns the PDR. But regardless of these differences, certain common concerns (and hence challenges) are apparent in both autonomous regions. The following analysis focuses on two examples, one in each region.

The prominent historical role of the public forest areas in la Terreta was described earlier [*see Chapters 3 and 4*], as was their negative evolution over recent decades in a process that saw their gradual collapse and abandonment. However, their present-day situation shows some slight regional differences, as the two examples should illustrate:

- On the one hand, a collectively owned forest in the municipality of Areny, known as the 'Común de Vecinos de Betesa', is representative of the situation faced by many forest areas on the right bank of the Noguera Ribagorçana. The area is still under the ownership of a community of local people, created in the 19<sup>th</sup> century, to ensure they were able to continue profiting from it. However, after planting conifers, the state acquired the rights to exploit its wood resources. Today, this area is no longer considered public (in fact, the community is a private concern); however, in 2002 a project was drawn up by Aragonese forestry engineers to carry out specific maintenance work.



- On the other hand, the area known as 'Costa i Obac' lies in the municipality of Tremp. In common with many other sectors, it forms part of the 'public utility forests catalogue' (CUP) given its public ownership (council owned). In 2008, a management project was introduced that seeks to manage the area in keeping with a primary goal of conservation and a secondary one of economic exploitation. This project is one of several planned as part of the general draft (Doya Peroy 2002).

## 6.3 Infrastructure Policy

This policy area deals with two main elements: transport networks and energy infrastructure. The main argument presented here is there is a considerable gap between the facilities planned for general use and those designed to serve the local population. There is, as such, a marked difference in the way in which infrastructure is managed at the large and small scales, with the former benefitting markedly.

### 6.3.1 The Road Network

In the Pyrenees, the main road network essentially comprises roads that connect certain valleys with the main urban areas outside the region, thus forming part of Spain's radial network designed with a centralist focus. This pattern is also apparent in la Terreta, where the N-230 national road follows the Noguera Ribagorçana valley in connecting Lleida and Vielha, in the well-known Val d'Aran district. The road is in good conditions and a parallel motorway is planned. By contrast, the N-260 (which connects the valleys transversally, rather than following a route from the plain up to the core of the range) is in a poor state of repair (despite forming part of the national road network). This status seems to be undergoing consolidation in a network that is becoming increasingly unbalanced. Thus, while a road connecting the Noguera Ribagorçana valley with the neighbouring Isàvena valley was planned, the project was never passed. Meanwhile, the N-260 is in urgent need of work; but there would appear to be no end in sight to the delay in undertaking these repairs.

A number of points should be highlighted regarding the construction of the A-14 highway (known as 'the motorway to the snow', since it will cut travelling times to the main winter resorts in the Spanish Pyrenees). Given the physical features of the Ribagorça region, this new axis cannot constitute a 'high capacity road' for the complete stretch. Thus, the motorway will terminate just before entering the Escales gorge, in the municipality of Sopeira. Moreover, the current economic difficulties that Spain faces will cause considerable delays to a project that was passed in 2006.

At the local level, there is a general shortage of good roads. However, beyond this, there are a number of differences that should be noted on either side of the regional border. In the Aragonese municipalities, each inhabited village has an asphalted approach road, whereas the settlements in Tremp have suffered recurrent problems with their roads and the problems have yet to be fully solved. A project was passed in 2008, according to which the main secondary road (connecting the most populous villages in the Tremp area) will be upgraded. However, a number of specific problems have emerged in relation to the connections between the secondary roads and the main road network. The most significant of these is the duplication of bridges connecting the main secondary road in the Tremp area and the N-260, owing to a lack of coordination between public authorities.

### **6.3.2 Water Management and Power Facilities**

Any analysis of this issue needs to bear in mind the legacy of the ENHER in this region. It means that today the international company, *Endesa (Endesa Generación S.A.)*, retains control over the main water concessions in la Terreta and the production of energy at its two hydropower plants. The current situation has been definitively shaped by the new basin plans implemented by the CHEBRO and the EU Water Framework Directive. According to the latter's regulations, the mid-section of the Noguera Ribagorçana river (coinciding with the aforementioned channel in la Terreta)<sup>17</sup> has been exposed to a severe reduction in its water flow. Consequently, the regulations contained in the Water Framework Directive regarding natural flow conditions are clearly not being met. The Noguera Ribagorçana basin draft plan contains the discussions that took place during the public participation phase. Many stakeholders participated at these meetings, and according to these reports the water flow level was one of the main concerns of the local agents. What is undeniable is that the river's conditions need to be improved over the length of this 23.5-km long channel.

The situation today is undoubtedly being dictated by the development of certain projects that include the building of new facilities, i.e. two hydropower plants and their respective dam as well as high and very high voltage power lines. Both project types are characterised by their impact on the territory, and also by the fact that they have given rise to considerable social opposition.

The hydropower plants are planned to be built within the reservoirs of Escalles and Canelles [see Chapter 3] so as to profit in the dry years from the lakes that do not fill. This is particularly significant in the case of Canelles, given its size (a capacity of 679 hm<sup>3</sup>). Its final

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<sup>17</sup> See Chapter 3.

stretch extends into the Mont-rebei gorge, where the *Endesa Generación* project foresees building a power plant inside a 33-metre tall dam. Although the company argues that the maintenance of a permanent lake is ecologically and socially better than the presence of an irregular body of water, the conservationist IPCENA and other social groups consider this project an aggression within a protected area. Moreover, the Catalan Department of the Environment has rejected the project. However, it has received the support of the Catalan Department of Public Works, and certain municipalities do not outwardly oppose it. Even the conservationist owner FTP did not manifest any explicit opposition. Yet, the project would seem to have been temporarily halted, until a minimum consensus can be reached. Paradoxically, the project for the Escales dam has been accepted even though it is broadly similar. The main difference is that, in this case, the area does not boast the same uniqueness as that presented by the Mont-rebei gorge.

The other issue of conflict concerns the power lines that are being projected by the semi-public company, REESA. Unlike the conflict surrounding the dams, this dispute is more complex as it involves arguments that date back to the 1980s, while the social opposition movement is much larger. Given these features, I focus strictly on two projects: a “MAT” power line (400 kV) project, and a project to convert a 220 kV line into a 400 kV line. Both projects are similar in that they would mean crossing the case study area in an east-west direction, and both have been equally rejected by the local population and the local political authorities. Many local citizens have formed an “anti-MAT” platform, which draws its support from various areas (in both Catalonia and Aragon). Many associations and public actors have also joined this platform, together with a number of political parties. However, some local public authorities have refused to participate in it, choosing to establish their own political platform so as to be able to negotiate directly with REESA. As a result, the original “anti-MAT” platform has denounced the political platform, claiming that it seeks solely to defend its own objectives rather than broader social goals. At the last meeting between the political platform and REESA, the latter presented its definitive draft project. Although the public authorities maintain their rejection of it, a number of Aragonese mayors have declared their willingness to negotiate.

Paradoxically, while the public authorities give voice to NIMBY attitudes, the civil platform manifests NIABY sentiments. However, an internal rift has become evident within the aims and goals of the members of the “anti-MAT” platform. But what remains as the true paradox is the fact that parts of la Terreta still suffer a lack of electrical power. Some settlements and houses continue to suffer power cuts, and such conditions are excellent ‘push-out’ factors when seeking to attract new economic activities.

## 6.4 Heritage Management Policy

This section turns its attention to public intervention policies concerning local heritage. Given that this field is complex and incorporates many different elements, I concentrate strictly on a presentation of items that have been officially recognized as heritage, and reflect on the task of the public authorities.

Major efforts have been made in recent years in la Terreta to recover its heritage. Specifically (and after a number of failed attempts to recover its abandoned villages), these efforts have focused almost exclusively on certain architectural structures. Many of these were included in inventories drawn up by public bodies in Aragon and in Catalonia. The most important actions have taken place in the Aragonese municipalities (e.g. at the historic site of Areny and, above all, the rehabilitation of the medieval village of Montanyana, where a sizeable investment has been made). This perhaps reflects the fact that the most important civil and religious buildings are in these municipalities rather than on the Catalan side (where although thorough inventories have been drawn up, virtually no action has been taken in the last few decades).

The above description highlights the relationship between the concept of heritage and architectural structures in the case study area. In recent times, inventories have included other material and non-material items related to the rural nature of the district (and, hence, to the territory that has been transformed and shaped by countless generations and which constitutes the area's true heritage). Thus, efforts have been made to restore former paths and tracks. However, it would seem that a further step forward remains to be taken, i.e. recognising the landscape as a key heritage item - the landscape as analysed in Chapter 4, i.e. seen as our awareness as a society of our footprint on the planet throughout our history. Additionally, the fragmented nature of the heritage management is also apparent; this approach once more is related to the dual-nature of the area's management (split between the Catalan and the Aragonese Governments). Finally, a broader concept of heritage is necessary in order to overcome a strictly tourist vision.

## 6.5 Public Services and Rural Infrastructure. An Overview at the Local Level

The last section of this chapter seeks to compare the situation of public services and infrastructure at the very local level. The discussion is based on tables V.6, V.7, V.8 and V.9 [see *Appendix no. 5*], given that they describe the situation in each municipality (both in the main and the secondary case study areas). Before describing the results of this analysis, it should be stressed that a direct comparison between the Spanish and the Austrian municipalities cannot

be undertaken, as the least populated municipality in the Mentitzer Berge municipalities has more inhabitants than the whole of la Terreta.

### **6.5.1 Rural Infrastructure**

As can be seen in Table V.6, in recent years the lack of infrastructure has gradually been resolved in la Terreta so that today all its permanent inhabitants enjoy water and power supplies in their homes. However, greater efforts are required to ensure this provision is extended to all secondary residences. Moreover, many places are still without an acceptable internet access. In the Austrian municipalities [see Table V.8], the status of their infrastructure is clearly better and there are a number of specific situations in which the shared use of infrastructure should be highlighted. Here, for example, local boundaries do not always act as a limit to the sewer system (e.g. the village of Frauenalpe is integrated into the network of Murau, although the former lies in the municipality of Sankt Georgen ob Murau). In la Terreta sewage remains an unaddressed problem. Yet, both the Catalan and the Aragonese Governments have planned several sewage plants in virtually every municipality. However, no common strategy has been drafted which would permit the sharing of these plants. In short, while basic infrastructure needs are progressively being solved, there remains much work to be done before certain facilities (such as internet access) can be provided and, thus, help attract new residents.

### **6.5.2 Public Services**

In common with the area's infrastructure, the public services in la Terreta have been improved in recent years [see Table V.7]. However, one crucial difference is worth highlighting, namely the convenience of planning most of these facilities at the *supramunicipal* scale. Certain public services, including schools, hospitals, waste management, public libraries and museums, only make sense if used by a certain percentage of the population, thereby exceeding the thresholds presented by the municipalities of la Terreta. Likewise, the same can be said for the secondary case study area [see Table V.9]. Significant efforts have been made in both cases, and more will be required in the future. Here again, la Terreta can learn valuable lessons from settlements in Metnitzer Berge, such as the twin villages of Steirisch Laßnitz and Kärnterisch Laßnitz, which share the same kindergarten, primary school and heating network, despite the fact that each lies in a different province.

## PART IV: AN INTERPRETIVE ANALYSIS, PROPOSALS, DISCUSSION & CONCLUSION

### CHAPTER 7: LA TERRETA A TERRITORY AT THE CROSSROADS. SOME CRITICAL REFLECTIONS & PROPOSALS

As the title suggests, this chapter undertakes a critical review of the ideas presented in the first six chapters. In addition, a number of proposals are also discussed in seeking to meet the future needs of the case study area. This area forms a ‘crossroads’ of diverse ‘territories’, a metaphor that captures the idea that la Terreta brings together several different ways of seeing and responding to territorial problems and uncertainties. Being a borderland means more than simply the addition of two conflicting realities, rather it implies the creation of a third dimension, i.e. what emerges from this addition. This accounts for the diversity and complexity of frontier lands, even in an area of few changes as evidenced by the case study. The four main issues analyzed in this chapter derive from the problems identified during the research project. Each issue is examined in several sections introduced by a given assertion. These assertions reflect, in turn, the author’s main beliefs. Some of the sections introduce a variety of proposals for the future. Many of these assertions have been inspired by the work of Tremosa (1991), who 20 years ago drew his own conclusions regarding the area’s future.<sup>18</sup>

#### 7.1 On the Adequacy of Public Policies

##### 7.1.1 *The Overlapping of Policies Predominates over their Integration*

The first assertion to be made regarding this issue is that the several public policies directly affecting la Terreta tend to overlap and so form a coexisting set of partial approaches, rather than constituting a unified strategy. This highlights a pattern that is well removed from the official discourse that is to be found, to mention just one example, in the ESDP, where territorial cohesion is supposedly to be achieved through the fostering of coordination and cooperation. These two key concepts, however, are conspicuous by their absence in the case study areas, above all in la Terreta (and to a lesser extent in Metnitzer Berge).

In Spain, the coordination of territorial activities affects the area’s economic planning (e.g., the distribution of the annual budgets at Central and Regional levels) though not the

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<sup>18</sup> See ‘Table VI.2’ in the Appendix no. VI (in the Catalan version of the Project).

spatial planning (which is not provided for under the Constitution – Romero González 2005). The management of water resources within the planning of the state's energy infrastructure is a good example of this failure in Spain. Yet, coordination is also lacking internally, i.e. within the Catalan and Aragonese Governments and their respective Departments. The problems of Catalan mountain policy and the inconsequential role of spatial planning agencies in Aragon (as described in Chapter 5) are good examples of this. Certain policy areas, however (including rural planning), are undergoing general renewal with the application of new tools of coordination. The Spanish Government has shown fresh willingness to participate in these procedures and has set up several commissions in which the regional governments play a full role.

In Austria, the difficulties inherent to coordination within a federal structure have also been detected. In the case of spatial planning, the ÖROK agency has had to seek to overcome these difficulties. Yet, despite its non-binding role, this has supposed a number of advantages for Austria that Spain has not enjoyed. Thus, at least the Austrian hierarchy has recourse to the piece that is missing in Spain's structure, i.e. the so-called 'ÖREK' (a nationwide spatial planning concept). Obviously, this does not guarantee a successful pattern of development. In fact, the ÖROK agency has recognised these difficulties and opinions support a national spatial planning act (Schindegger 1999).

By contrast, instances of cooperation are much richer than those of coordination. According to the Spanish Constitutional Court, cooperation is voluntary. Examples of cooperation in la Terreta include, among others, bilateral agreements between the Catalan and Aragonese Governments in the fields of public health and education [*see Chapter 6*]). In addition, there have been many attempts of cooperation at the local level, albeit not always successful. For instance, the local plans of Tremp and Areny fail to refer to each other in their internal reports and spatial strategies. Even private agents have encountered problems in designing tools of cooperation. For instance, the FTP designed many projects and implemented many measures in the municipality of Tremp, but the focus it adopted was perhaps inappropriate given that the systematic lack of infrastructure that the area suffers was never truly addressed. Instead, too much importance has been given to developing facilities for tourists. As a result several questions arise: the fact that the municipalities are unable to meet the needs of their citizens; and public and private agents are unable to establish cooperative relationships. As a result, the debate concerning the nature of planning in marginal areas needs to continue, particularly as regards the role for alternative strategies (such as land stewardship agreements and the promotion of soft tourism to recover the economic structure of entire regions) and that of private institutions, as they have been shown to be incapable of



assuming certain strategies that require a global vision of the territory and its problems. In short, the current pattern of performance requires a radical turn around in order to stem the current imbalances.

Austria, by contrast, is much better endowed with cooperation strategies. In this regard, two aspects stand out: first, the local authorities wield greater political and, above all, financial powers and the supra-local agents enjoy greater facilities for implementing initiatives, such as the aforementioned 'Bioregion Murau' which seeks to establish links between agrarian, tourism and forestry activities. And second, although the regional border is quite impermeable to cross-border cooperation (at least in the Metnitzer Berge), in specific instances the borders constitute no obstacle at all to cooperation. In addition to the two Laßnitz cases [see *Chapters 5 & 6*], a further initiative has seen the development of the ski resort known as Turracher Höhe (just as short distance to the west of our case study). In this instance, a joint tourism developing strategy was passed by the three municipalities in Styria (one of them) and Carinthia (the rest).

### ***7.1.2 The Administrative Boundaries Have a Strong Influence on the Coherence of Territorial Management***

La Terreta has been intensively shaped by political boundaries at several levels (from the regional to the local). Paradoxically, the de-centralization process that has taken place in Spain since 1978 has had more negative than positive impacts on this area, since the regional border became more firmly entrenched. While recognising the crucial nature of the de-centralization process as a step towards the implementation of the principle of subsidiarity, the problem, nevertheless, remains this marked lack of subsidiarity, given that de-centralization has come to a halt at the regional level (i.e. that represented by the Autonomous Communities). It is apparent that the public authorities fail in their attempts to manage the border areas correctly and are ignorant of what happens on the other side of the boundary. By so doing, they are unable to fulfil their duties and serve the citizens. In this sense, it might be argued that recent reforms to the administrative divisions (i.e. the foundation of the Aragonese Ribagorza district and the subsequent failure to establish the Ribagorza Oriental Commonwealth)<sup>19</sup> have contributed to a general re-centralization.

Undoubtedly, the most marked example of marginality within the case study area is that recorded in the municipality of Tremp, an area that may even be considered marginal at the broader district ('*comarca*') level. As shown in section 6.5, there are major weaknesses in the

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<sup>19</sup> See section 5.1.

area's basic infrastructure, above all in its water supply. However, its marginality can be measured in terms of other criteria. For instance, travel times to the municipal capital (Tresp) can reach 70 minutes,<sup>20</sup> while comparable times do not exceed 30 minutes in the district of Murau, in the Metnizer Berge. Yet these factors do not always constitute disadvantages, as the forestry policy demonstrates. In such cases, the small municipalities of Aragon are incapable of maintaining their own policy, and as a result their forestry is exposed to worse conditions than those in Tresp. In this sense, two aspects should be stressed: first, in all instances the regional governments have responsibility for these matters; and, second, the collective (but private) nature of the forests has been conserved in the Aragonese municipalities, while in Tresp many forests are now owned directly by the Council. This has facilitated their centralized management in Tresp. However, the Aragonese municipalities have managed to maintain their basic structure so as to provide services to their citizens, which is clearly more relevant in such a context.

Beyond the immediate impact resulting from the merger of municipalities in the 1960s and 1970s, this overall process can be traced back to the mid 19<sup>th</sup> century, thereby illustrating the existence of a wider problem affecting local administration (as described in Chapter 5). This problem is worth highlighting and should be related to the worrying financial situation faced by several municipalities in the case study area. The debate concerning these circumstances is on-going but it is clear that consideration must be given to the redrawing of the administrative borders. Ultimately, the crux of the matter is the role attributed to these limits, rather than their mere presence. Such a conclusion might be deemed trivial; however, it is more than apparent that the limits are perceived as some sort of divine fact rather than a human convention.

### ***7.1.3 The Role Played by Spatial Planning Remains Irrelevant***

This section seeks to demonstrate why spatial planning is perhaps more irrelevant in places such as la Terreta than it is elsewhere. The reasons are largely twofold and are related to the insufficient presence of planning tools and, where they do in fact exist, with the failings of these tools.

Beyond the manifest differences between the two main spatial planning tools at the regional scale in Catalonia and Aragon (namely, the PTPAPiA and the DPOTPA, respectively), there are several reasons why it can be concluded that neither of them have had any real impact on our case study area. First, the PTPAPiA does not provide a proper policy for the

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<sup>20</sup> See map VI.1 (Appendix no. 6).

valley of the Noguera Ribagorçana, since its *talweg* is not classified as a preferential agricultural area. By contrast, the other two main rivers in this region are declared 'preferential agricultural soils' within the open spaces category. Beyond any objective arguments, it would seem that this mistreatment is due to the border nature of the valley, which obliges the Catalan authorities to extend its influence outside Catalan territory in order to plan a truly harmonised area. Second, the PTPAPiA considers the Aragonese village of El Pont de Montanyana, which is embedded within the border, as occupying a wildlife corridor. It might be argued that spatial plans cannot consider every detail of a territory; however, this particular circumstance does not represent a lapse of attention, but is rather a mistake attributable to an overly rigid perception of the territory's border. In other words, the tool has simply failed to acknowledge that on the other side of the limit there stands a village and, as such, a wildlife corridor is not possible. The situation is even worse in the case of the DPOTPA. As discussed below, this tool does not contain any specific measures that can be expressed in cartographic terms. Moreover, the uncertainties surrounding its validity have increased since the introduction of a new spatial planning in 2009. And what is perhaps worse, an allegation has been made by a conservation group questioning the very legality of the tool.

If we take a wider perspective, the main reasons why spatial planning has not become a more prominent policy can be summarised as follows: first, spatial planning in Spain is conditioned by the lack of coordinating tools and mechanisms; by contrast, Austria boasts various tools for this purpose. Second, Spain's spatial policy has been shaped by infrastructure projects (e.g. its road system – Zoido 2007). This is also quite noticeable in the case study area. Third, there is considerable distance between the respective spatial planning and rural development policies. This distance also exists in Austria, but the links are more visible than they are in Spain (e.g. regional management tools are connected with planning tools in the former, but hardly ever is this the case in the latter). In Catalonia and Aragon, rural development policy (such as the PDR [*see Chapter 6*]) is strictly dependent on the departments which formally have nothing to do with the spatial planning process. Fourth, the agents explicitly created to foster cooperation more often than not fail to fulfil this task. This is the case for example of both the SAC and the IDAPA in the Catalan Pyrenees, and the Territorial Strategies Service of the Aragonese Government. Fifth, there is, according to various studies (see, for example, Feria et al. 2005), a difference between the way in which spatial policy is planned in Catalonia and Aragon, i.e. a cross-sectional approach typifying the former, and a partial perspective being adopted in the latter. Seventh, as Zoido (2007) claims, there can be no progress in formulating and implementing spatial planning without progress first having been made in terms of democratic government. And eighth, the overly narrow relationship

between territorial and urban planning that characterizes Spain's spatial planning is by no means limited to our case study area. This, in practice, gives la Terreta a certain advantage, as the typical 'misunderstandings' that arise between these two practices can be avoided. On this issue, the Austrian municipalities provide very good examples in many senses.

## **7.2 On the Role of Society in Territorial Government**

### ***7.2.1 The Lack of Cohesion within the Local Tier of Government does not Imply a Fragmented Society***

As pointed out in Chapter 3, the emigration process to which la Terreta was exposed for almost 150 years seriously undermined traditional society. Yet more important than the numbers involved was the qualitative nature of this wave of emigration which, for example, resulted in the collapse of social institutions such as the family unit, the local council and local cultural associations. Ultimately, the outward migration led to the formation of a society marked by a tremendous lack of cohesion. At the same time the collective lobbies that had defended local interests, such as those related to water management, disappeared. However, even during the Franco dictatorship and the monopoly over hydropower wielded by ENHER, the local farmers continued to fight for their rights to irrigate their fields. A local historian explains how the farmers of Areny brought a successful law suit against ENHER in the early 1970s. At that time, the decline in demography impeded any recovery of traditional irrigation practices, while the facilities that were eventually made available by ENHER were never used because of the few farmers expressing with any interest. Not even the exhortations of Tremosa (1991) were sufficient to bring about a reaction, as he called on the farmers to defend their rights so as to safeguard collective interests.<sup>21</sup>

After Franco's death and the restoration of democracy, several movements were initiated in defence of the local language (i.e. Catalan). These affected la Terreta, and especially the Aragonese sector (since in the Catalan sector Catalan was immediately declared as the official language). In the intervening years, these movements have only been partially successful. Yet, given the amount of interest in this issue, it is remarkable that what had previously been strictly local struggles were left to one side.

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<sup>21</sup> See 'Table VI.2' in Appendix no. 6.

### ***7.2.2 The Re-emergence of Voices of Dissent: Is there more to the protest movements than the manifestation of specific complaints?***

We are currently witnessing a re-emergence of a protest movement orchestrated by the local population in defence of their own interests. We are able to speak of a “re-emergence” as it appears that the leitmotiv of these protests was present before. The difference today, however, is that society has grown more complex and the people no longer trust the local political authorities. These protests have even had a certain repercussion in the media (including in the internet and the regional press and TV).

Two of the main causes leading to the raising of these critical voices were described in Chapter 6. However, a third cause should also be mentioned: the will of certain individuals in the Catalan section of la Terreta (currently lying within Tremp) to constitute a new independent municipality and to become a member of the Alta Ribagorça district (as opposed to forming part of Pallars Jussà). An unofficial referendum was celebrated in April 2010 in order to determine popular opinion to this effect. The results were overwhelmingly in favour of the ‘independence’ of la Terreta (the name proposed for the possible new municipality). However, the case does not fulfil all the necessary legal requirements and, moreover, it has led to an open conflict with the mayor of Tremp. Yet, it seems the Catalan Government would support the establishment of an ‘EMD’ (i.e. a decentralized local entity) in order to gain autonomy and a shift whereby the area came to depend on the municipality of Pont de Suert (the capital of the Alta Ribagorça district) as opposed to Tremp. The process is still under consideration and the eventual outcome is uncertain.

A key question has been raised regarding these three examples: are the protests simple examples of NIMBY movements, or do they seek something more? To answer this question we sought to identify their common characteristics and concluded that they are all collective as opposed to individual movements. At the same time, all three are led by individuals that are seeking to connect the movements together. Yet, it would seem that these incipient connections have not resulted in any firm links being established as there is a general failure to comprehend the underlying causes of each struggle. More specifically, the social movement against the power line is being orchestrated by a consolidated actor with decades of expertise, whereas those that seek to create the new municipality of la Terreta are a specific group of people discontent with a certain council. As for the movement opposing the construction of the Mont-rebei gorge dam it is being led by outside conservationist associations.

Taking this analysis one step further, it should be stressed that all protests contain a specific proposal, given that each constitutes a reaction against an attack on general interests. Undoubtedly, there are many individual and even private interests involved as well; however,

ultimately the general interests should be emphasized over the particularities. The most illustrative example of this is the struggle for the water resources of the Noguera Ribagorçana. Clearly, here also there are private interests concerned with obtaining a larger amount of the river flow that is currently channelled through the ENHER hydropower plant. Were the flow to be increased, the local adventure sports companies could extend their business. But the key issue here is that if the river flow were to be increased, the ecological conditions of the river ecosystem would be considerably enhanced and the region would be able to comply with international legislation (including the European Water Frame Directive). Ultimately, a fluvial basin constitutes part of the supra-generational heritage and the present-day society has the obligation to preserve it for the future. However, it is also increasingly clear that energy production and the broader land use should be in constant debate.

A second key factor characterizes these protests, namely, that they represent the consequences of the overall negative, territorial administrative organization. It could be argued that popular demands in la Terreta to set up a separate municipality have paradoxically coincided with a peak in the performance of Tresp's council. Yet, the protests are nevertheless justified because they represent an attempt at finding a better solution to unsolved problems. In this sense, what is important is that the area's inhabitants once more feel that they can assume a leading role in their future. Unfortunately, this sense is not replicated on the Aragonese side of the border, where, after a decade of struggles orchestrated by the local mayors to establish their own district (the Ribagorza Oriental commonwealth), the present-day situation is characterized by a general silence and acceptance of the situation (which is, and it must be stressed, clearly more comfortable on the Catalan side). In this case, the mayors assumed that the process by which the districts were to be created would involve the whole of Aragon and, as such, this was an intensely political debate, in which they were outsiders ... until certain individuals became insiders (that is, they were appointed to key political positions within the regional government).

Finally, beyond the marginality of this area, its demographic decline and even its political duality, the local population continues to 'resist' and to demand that la Terreta remain as a single living space (in line with the German concept of *Lebensraum*). This increase in popular demands for change from both sides of the regional border is illustrative of a common identity and the recognition of a sense of belonging to the same valley as opposed to the people having adopted any other symbolic, political or ideological identity (such as a sense of belonging to Catalonia or Aragon). Ultimately, Geography facilitates our understanding of the territory's present-day problems (namely, the administrative division): 'the land of short

banks' (recall the etymology of the place name 'Ribagorça') continues to behave as a labyrinthine land.

## 7.3 On the Future of a Changing Landscape

### 7.3.1 *The Crisis of the Peasant Farmers as the Outcome of a Wider 'Territorial Crisis'*

As stressed in Chapter 2, the *pagesos* (or the peasant farmers) constitute the backbone of the landscape, having shaped the earth's surface over many centuries. For this reason, this section begins by highlighting the farmers as a key component of the area's landscapes. Specifically, it is argued that the farming crisis should be discussed in wider terms, i.e. taking into consideration the social, cultural and environmental functions of the farmers. To do this, certain features (perhaps myths) surrounding the hypothetical disappearance of farmers (or at least mountain farmers) in Western Europe need first to be deconstructed. Even in areas such as la Terreta young farmers continue to work the land; admittedly, they are few in number, but their commitment to and appreciation of their work are undeniable.

The urban "gaze", which serves increasingly to shape our social conception of life, leads us to consider farmers simply as *peasants*, working under little pressure and manifesting few ambitions. Yet, as the conversations recorded here as part of the field survey reveal, being a farmer requires considerable creativity and the ability to take daily decisions in a flexible manner so as to face a myriad of problems. However, perhaps the most important role adopted by farmers today is the crucial part they play in what might be referred to as the 'territorial crisis' – that is, the environmental crisis in its broadest perspective, and not simply the social or institutional awareness of global warming and climate change, but also of 'global changes' (including a shift in land cover and land use). This research project has highlighted the outcomes of land use change in the pre-Pyrenees and also the forces underpinning it, i.e. the decline in agriculture, livestock farming and forestry practices [see Chapter 6]. This shift has a number of little appreciated consequences: a good example of which is the increase in rainfall interception in unmanaged forests, and the subsequent decrease in surface water flow. The advance of the forest areas (and, hence, the retreat of the landscape mosaic) means an impoverishment of biodiversity rates and, eventually, a decrease in water availability. For many reasons, promoting 'wilderness' is not the most appropriate strategy for facing these current challenges (Cronon 1995).

The promotion of wilderness is being managed in different ways depending on the context in question. Institutional discourse (i.e. the management tools analysed here, including the



PTPAPiA) defends the preservation of a well-managed cultural landscape. But reality presents diverging conceptions of this. For instance, in Alpine areas such as the Gurktaler Alpen there is an ongoing debate between those that defend the landscape mosaic and those who argue the impossibility of its conservation. Woodland advance must be contained, according to various spatial planning tools. At the same time, however, wilderness is also being fostered (as in the case of 'Wildnispark Dürrenstein' in Lower Austria). It might also be argued that the disappearance of the landscape mosaic is also involuntarily being fostered in la Terreta, given the strategies drafted by the FTP: an official goal in la Terreta's management plan is to recover areas of pristine vegetation (Ajuntament de Tremp 2001).

### ***7.3.2 Territorial Policies of Intervention Need to Abandon their Prejudices***

The policy implemented to face the global environmental crisis over the 20<sup>th</sup> century was characterized by diverging measures, typified by conflicting agricultural and environmental policies. It was the shortcomings of the 'productivist' policy that led to the introduction of protected areas; however, this partial strategy failed to solve the challenges of a more complex issue. The restructuring of the CAP represents a part of these new solutions that failed to work fully. Here, subsidies are undoubtedly part of a successful strategy, given the disadvantages of certain types of non competitive (but environmentally crucial) agriculture. But, at the same time, there are many reasons why this policy might be considered detrimental. According to some authors (Marín-Yaseli 2007), subsidies have generated a 'dependency syndrome' in which the only significant aspect are the environmentally friendly measures; moreover, they have traditionally adopted a 'top-down' approach. A different situation would be if it were the farmers (that is, the entrepreneurs), and not the farms, that received this support. In the case of the protected areas of la Terreta they are confounded by a transversal as opposed to a partial policy. Despite the importance attached to them, they are ultimately sectors in which no specific tools are being applied.

Several strategies designed to bridge the gap between 'agrarian' and 'environmentalist' approaches have been analysed in this research project [*see Chapter 6*]. Innovative approaches have been developed by public authorities, including the Catalan and Spanish Governments. The aim is to introduce Corporate Social Responsibility (CSR) so as to incorporate the landscape and environmental dimensions of farming into the output. In this way, the price of the 'product' will also include these immaterial factors. Farmers are required to behave as entrepreneurs and to aim to be competitive by emphasising quality over quantity. It would seem that this is the key to this philosophy (although the first attempts to implement it in

Catalonia – the so-called ‘CGE’ being the best example – have ended in failure [see section 6.1]).

In la Terreta, the application of these new tools is particularly troublesome. The main reason for this is that it is a marginal area, but at the same time the survival of a certain framework (i.e. the fragmented conception of its territorial policies) obliges new actors to perform in old scenarios. Today, more than ever, it is necessary to introduce and promote a policy that responds to a holistic vision of reality. Two examples serve to demonstrate this crucial shortcoming. The first is related to organic farming. Today, local farmers produce organic beef cattle for sacrifice in local slaughterhouses, but the practice is economically unsustainable for several reasons, but principally because of the price of the forage. Rather than being produced in the region, the forage has to be imported, thereby increasing costs. The second example is related to forestry practices. While local forests are widely underused, the domestic demand for forestry products in Catalonia means that timber and other products have to be imported. Incipient local initiatives in the Pallars Jussà district, including a biomass power plan, need better coordination and the support of the public authorities. Once again, the Austrian case study area serves as a good point of reference: the combination of tourism and farming in its well-known ‘*Urlaub am Bauernhof*’ (‘Holidays on the Farm’) serves also to promote links with forestry practices and even energy management.

### ***7.3.3 The Importance of the Landscape as a Metaphor***

The ‘physical’ collapse of the landscape in la Terreta does not mean the ‘immaterial’ decline of the ‘idea’ of landscape. This idea has been reconstructed by certain foreign agents, as discussed in Chapter 4. For this reason, a true landscape policy is required in order to achieve genuine territorial management. Even though various efforts have been made over the last decade to separate the landscape from the conception that associates it strictly with nature, this confusion still pervades institutional discourse. For example, certain spatial planning tools (such as the DPTOPA) consider that the landscape will automatically be preserved by the designation of protected natural areas, and that specific protection tools are all that are required for the rest of the territory.

It would seem that this confusion has been caused by specific social values and conceptions. In this sense, a further key difference between Spanish (i.e. Catalan and Aragonese) and Austrian societies should be highlighted. In the former, the rural space (and more particularly the mountains) is perceived by an urban “gaze” that systematically ignores certain values held by the peasant farmers, because they are automatically associated with a backward state. Hence,

farmers are seen quite simply as unenlightened folk and their culture is seen in a solely negative way in the social imaginary. Moreover, in Spain this vision of the mountains is strongly influenced by stereotypical Alpine landscapes (e.g. Zermatt and the Matterhorn). As a result, the mountain landscapes that do not correspond with this 'Alpine' image (that is, roughly 90% of them) remain marginalised. This accounts for the fact that today la Terreta constitutes a periphery within another periphery.

By contrast, the Austrian (and, indeed, the German) contemporary social imaginary perceives positive contributions of the rural way of life, although here again it is also fundamentally shaped by an overriding urban conception. However, this rural culture has somehow been conserved as is apparent in the term 'Heimat', which refers to something much more than a mere 'hometown' or 'homeland' (Applegate 1990), encapsulating a more sensitive vision of the landscape and its human component. In this sense, it is not difficult to understand why the mountains of Metnitz are a marginal area within the Alpine space (which, despite the challenges it faces, is by no stretch of the imagination a periphery within Austria as a whole).

What requires highlighting is the importance of constructing a state of consciousness (both social and institutional) around the problem of the agrarian crisis (and, by extension, the crisis faced by the landscape). The goal is to achieve an awareness that landscape change is not solely an aesthetic issue, but a challenge for the whole of humanity and the Earth. The collapse of the footprint of entire traditional societies needs to be taken into account (and not ignored as seems to be happening) in order to face these current challenges (Diamond 2010). What is clear is that landscape management is closely linked to the public recognition given to farmers and their social, cultural and environmental roles. Even the immaterial, and closely related subjective, aspects should be taken into account in designing landscape policies. There are various experiences that illustrate this (Dax *et al.* 2009) and scholarly discourses that warn of the dangers of its trivialization (Tort 2006).

To achieve this, a number of tools have already been mentioned. Tourism serves as an excellent instrument for incorporating farming within the economic cycle. But of even greater transcendence is the creation of integrative strategies that are able to consolidate quality as the leitmotiv of local economic activities. In this sense, the aforementioned 'Murau Bioregion' is an excellent example of what might be achieved (Groier *et al.* 2008). However, at the heart of such strategies there needs to lie a sensible conception of the landscape and what it constitutes. In the Swiss Alps are to be found examples in which the landscape constitutes the object of such policies in its own right (Gerber & Knoepfel 2008); even in Catalonia we find discourses in a similar vein (Sabaté Bel 2005).

When applied to la Terreta, two fundamental ideas should be stressed:

- a) There is an urgent need to change the institutional vision of the landscape. In la Terreta landscapes (i.e. the '*riberes*' in the main valley [see section 4.2]) can still be found that are being worked. It is essential to preserve these activities by fostering strategies similar to those discussed above.
- b) The extensive upland areas hosting the landscapes typified by '*interfluvis*' have collapsed and been abandoned [see Figure 4.6]. Here, a policy recognising these problems should be drafted and executed. Society needs to develop the ability to identify and dignify its rural roots. There are, however, certain upland areas that retain their agrarian activities [see Figure 4.5]. In this case, they should be managed in accordance with similar strategies to those employed in the '*riberes*'.

## 7.4 On the Government of a Territory Confounded by Uncertainties

### 7.4.1 A 'top-down' or 'bottom-up' approach? On the Need to Progress towards a Better Democracy

In his most recent work, the Geographer and Biologist J. Diamond (2010) argues that the future of every society depends on a group of diverse factors and, more specifically, how they work together in combination. In the discussion, here, the key factor is the ability to take collective decisions within society while applying both 'top-down' and 'bottom-up' approaches. The combination of these two approaches has provided some civilizations (such as Japan during the Tokugawa Era) with an efficient way to manage their resources and to ensure their success. A debate examining the strengths of these approaches (and, specifically, the most appropriate way to combine them) is crucial in our current global society and this should extend to both current and future territorial governance.

In this sense, certain criteria must be taken into account, i.e. a clear division between individual and general interests. This principle guided the thinking of Ildefons Cerdà, not only in his conception of the expansion of the city of Barcelona (the so-called *Eixample*), but above all in his theoretical beliefs (the 'General Theory of Urbanisation'). In relation to this, an in-depth debate of current democratic regimes needs to be fostered. The present-day situation is characterised by the manifold attacks on civil rights (Hessel 2010) around the world and these must be taken into account.

A number of specific situations related to certain democratic failings have been described throughout this research project, e.g. the role of private enterprises with a monopolistic control over public resources including energy and citizens' groups claiming more participation alongside public authorities in official negotiating processes [see section 6.3]. In all this the

mistreatment of individuals by the public authorities is apparent and according to various authors (Sousa Santos 2005; Ojeda 2009) this reflects the close association between individuals and consumers. In the Spanish democratic system, only the democratic authorities can claim to be legitimate, a right that does not extend to civilian associations that come together to fight for certain strategic issues. In this context, participative democracy has serious difficulties to move forward since no one questions the negative aspects of representative democracy.

How then might 'bottom-up' collective initiatives in la Terreta be fostered? Examples of such initiatives are to be found in other marginal areas of the Pyrenees, which are not so different from our case study and which have succeeded in organizing movements that fight for the recovery of mountain farming, including the fostering of specific jobs such as that of the shepherd (following the foundation of the first school for shepherds in Spain). Besides, public support for private 'bottom-up' initiatives might provide better solutions than misguided 'top-down' public initiatives that have sought private support. In la Terreta a number of private individual projects seek the recovery of various features traditional agriculture (e.g. seeds, methods and even landscapes). These initiatives require the encouragement of public authorities, who should also seek to foster links between them, rather than financing expensive 'top-down' programs. The goal should not be to obtain greater market shares, but rather the production of high quality goods that are attractive to a certain customer. A further frustrating example described in Chapter 6 was the hindrance caused by land consolidation projects to the introduction of an irrigation project. In this case, specific legal mechanisms could be used (i.e. expropriation).

This clearly calls for well designed strategies from the Administration, who need to determine what strategies are to be fostered in promoting rural mountain areas. A crucial issue in this sense is to decide whether demographic decline needs to be fought against or not. It is essential to achieve a broad consensus on this issue and design specific measures that include tax incentives for the low populated areas. However, the current situation is typified by a number of unpopular government actions in areas such as energy consumption, transit regulation and health.

If we return to our case study, a number of social movements fighting for the rights of mountain areas as a whole have been identified (e.g. the 'Mesa de las Montañas', a group concerned about the future of the Aragonese Pyrenees). However, a number of specific features show that even these movements have difficulties in identifying all the problems that affect the Pyrenees (not just the high mountain but also the mid-mountain sectors). As such, it is often difficult to defend a holistic vision of mountain areas. To be able to do so requires the

emancipation of the people as well as the territories, which first necessitates a critical review of the hegemonic points of view that have shaped the mountain territories of Spain. An illustrative example of this is an energy management policy that remains entrenched as a form of 'internal colonialism' in which a few powerful companies continue to exploit certain resources without properly compensating the affected areas. Yet, even more worrying is that projects seeking self-sufficiency in their production and consumption of energy, such as the '*Energievision Murau*' (planned in the upper Mur valley), are scarcely viable in la Terreta. This emphasises the need to rethink the relationship between the two approaches outlined at the beginning of this section. To do so, it is necessary that:

- a) Private initiatives be supported and fostered by the public authorities at the local level.
- b) A debate be engendered as to the capability of territories to achieve greater self-sufficiency in their energy consumption and, thus, reduce their dependency on major energy companies. Public authorities should also encourage local initiatives to this end, such as the plans for the upper Mur valley.

An additional expectation of a 'top-down' approach is to provide a global vision of the territory in order to intervene in it. An example of just such an integrated vision of the Ribagorça region is provided by the ideas of the civil engineer Victoriano Muñoz Oms, who planned an integrated management project for the water resources of the whole of the Noguera Ribagorçana river basin. Beyond the negative ramifications of this intervention (not least its vision of rivers as simply 'channels of water' and the heavily detrimental construction process of the big dams during the Franco Era), an up-to-date, objective vision should provide coherent criteria for the recovery of the basin. This would have to be combined with new interpretations founded on theories of 'degrowth' (Latouche 2006) so as to free those areas that are unable to adapt to permanent competition in a context shaped by a conception of the economy that seeks uninterrupted growth (Naredo 2006).



### 7.4.2 Rethinking the Concept of Frontier

As discussed at the beginning of this chapter, the concept of the frontier has been present (implicitly or explicitly) at each step in the analysis. This last section examines the brilliant intervention of the Spanish writer J. L. Sampedro in 1991 on his accession to the Spanish Academy of Language (RAE). In this speech, entitled '*Desde la frontera*', the author presents the transcendental difference between the two meanings attributed to the Spanish concept of 'frontier' or 'border': on the one hand, the frontier implies two symmetrical sides in permanent contact and communication; on the other hand, this '*límite*' (limit, in the sense of being finite) implies the impossibility of overcoming the barrier beyond which nothing lies. At the same time, Sampedro defines himself as a 'frontiersman' ('*un hombre fronterizo*'), that is one who is always torn between two different ways of observing reality, and he contrasts his situation with that of those who are permanently at the 'centre' ('*centro*'), who remain distant (both physically and mentally) from the frontier and, as a result, are far more obdurate to accepting alternative conceptions.

Applying the wise ruminations of Sampedro to la Terreta and the whole of Ribagorça, then these 'frontier' lands have over their history become 'limit' areas. This has been made possible by the political significance that the boundaries have gradually acquired. The political power concentrated at the *centres* (of Catalonia and Aragon) has sought to justify this well-demarcated border that today separates them. As the French historian P. Vilar stated in his seminal study, *La Catalogne dans l'Espagne moderne* (1964), a close relationship can be established between deserts (both in a geographical and in a demographic sense) and frontiers. The Ribagorça region has over the last few decades become a veritable demographic desert, which has served in defining more clearly the 'limit' between the two 'centres' and also in weakening the 'frontier' identity (i.e. being open-minded and free from politically motivated discourses). In this sense, a significant example is provided by the case of the Catalan-speaking territory within Aragon (the 'Franja de Ponent', which includes a large area of Ribagorça). This question has always been debated in its political perspective and at the supra-local level, never by the local people. Clearly the political authorities need to begin to think outside the traditional framework of clichés and stereotypes, which have served merely to promote misunderstandings, ignorance and distrust, and attempt to resolve this absurd situation that is a major conditioning factor in the discussion about the truly important issues for the future of Ribagorça and la Terreta (i.e. the demographic future and the management of the territory). For this to happen, the State needs to adopt alternative paradigms that do not seek to impose a given identity, since identities are always subjective and should not be manipulated in favour

of certain interests. Thus, what is needed is a united district of the Ribagorça that transcends the centralism imposed by Catalonia, Aragon and Spain.

## CHAPTER 8: CONCLUSIONS

### 8.1 A Verification of the Research Question

The research question that has guided this entire research project is the following:

The area examined in this case study has undergone a major transformation in a relatively short period of time (i.e. the last half century). These changes are arguably the most far-reaching in its history, and can be attributed to two specific forces: demographic decline and the collapse of the 'traditional' land use pattern. Many more changes seem inevitable in the future, but these are destined to occur in a very different context to that which has characterized recent decades. Whether these changes will be for the better or not depends on two basic premises:

- a) The willingness of the political classes to overcome the manifold limitations of the public policies that have been implemented to-date in the case study area.
- b) The ability of the local population to bring pressure to bear on the political classes to ensure the implementation of appropriate public management strategies.

The preceding pages have demonstrated the overwhelming veracity of this statement, although it requires qualifying:

- It is true that the case study underwent a major transformation in a short period of time; however, it should be borne in mind that these transformations should be seen in a broader time spectrum, since their causes can be traced back to the 19<sup>th</sup> century.
- Closely related to this, a warning should be made as regards the meaning attached to the term 'traditional'. The term seeks to capture the unaltered nature of what was clearly a highly diverse land use pattern. At the same time it is important not to lose sight of the gradual changes that ran parallel to time.
- As to whether future changes will be for the better, in relation to the first premise it should be stressed that this project has revealed the inevitable incidence of the decision-making apparatus of the public authorities on virtually all questions having a social or economic outcome.
- As for the second premise, i.e. the ability of the citizens to bring pressure to bear so that they might achieve their goals for the community, many examples of such platforms and movements have been described in this project, demonstrating the importance of the local people. Indeed their role may be even more transcendental than that of the political authorities.

## 8.2 Final Statements

This final section brings together the main points raised throughout this research project. To do this, a group of statements are formulated around five basic questions that serve to summarise the main content of the research project. These questions are:

- What exactly is the physical appearance of the main case study area (i.e. la Terreta)? What are its basic features and what features does it have in common with the secondary case study area (i.e. the Metnitzer Berge)?
- What changes have the landscape of la Terreta undergone?
- What characterizes the formal institutional framework in which spatial planning is conducted in both case study areas? What characterizes this spatial planning?
- What characterizes the implementation of policies that have a territorial impact in la Terreta? What features do the municipalities of la Terreta and the Metnitzer Berge have in common and what are the main differences?
- What ideas can be derived from the questions raised above? What problems, challenges and opportunities are shaping la Terreta? What lessons can be drawn from the secondary case study?

- ***What exactly is the physical appearance of the main case study area (i.e. la Terreta)? What are its basic features and what features does it have in common with the secondary case study area (i.e. the Metnitzer Berge)?***

The physical geography of the area has been influential in determining its marginality, i.e. its geological complexity has given rise to its rugged relief and, consequently, its failure to develop a hierarchical settlement network.

Likewise, the human geography of the area has also contributed to defining its marginal nature. After the Middle Ages, the political and ecclesiastical power moved out of the Pyrenees and took root in the plains. In the 17<sup>th</sup> century all bodies of self-government were abolished and in the 19<sup>th</sup> century this political decline affected the area's social and economic institutions. These trends became consolidated during the 20<sup>th</sup> century, especially after the Spanish Civil War (1936-1939). The hydropower monopoly enjoyed by 'ENHER', demographic collapse and agricultural decline characterized this period.

A comparison of la Terreta with the secondary case study area reveals they have a number of basic features in common (i.e. their marginal nature shaped by economic and demographic decline, a mountainous character and the role played in each by agriculture and forestry). However, a number of key differences should not be overlooked, i.e. the fact that the Metnitzer Berge constitutes a homogeneous region, with the municipalities studied here belonging to two different valleys. In this sense, any attempt at conducting a comparison with la Terreta should first be qualified.

→ ***What changes have the landscape of la Terreta undergone?***

The decline in the land area dedicated to crops and the growth in that dedicated to forestry are indicative of the general land abandonment that has afflicted la Terreta over the last 60 years. However, a short-term general assessment fails to provide a detailed understanding of these overall trends and what is required is a long-term analysis (stretching back to at least the 19<sup>th</sup> century) to provide a meaningful interpretation. Such a qualitative assessment provides us with a detailed picture of the shift in land use and enables us to understand landscape change in the area. This analysis of the landscape reveals two additional key features:

- 1) The present-day landscape has taken shape from the collapse of a socio-economic system that provided for a balanced management in which the leading roles were played by a few rich families and the remaining poor farming families. The progressive disappearance of forested areas has largely been a consequence of this break-up.
- 2) From a subjective perspective, the landscape of la Terreta has attracted little notoriety in terms of literary and artistic representations. The descriptions of the foreign travellers to the area were limited to a few spectacular landforms (principally the gorges), while the rest of the area remained unexplored. However, contemporary collections of popular literature reveal a rich heritage of descriptive works and metaphors about the landscape. Unfortunately, this heritage has been badly neglected in the contemporary discourse of formal institutions which use the landscape as a tool for tourist projects or to protect natural areas.

→ ***What characterizes the formal institutional framework in which spatial planning is conducted in both case study areas? What characterizes these spatial planning practices?***

The formal institutional framework is shaped by three main features:

- 1) The territorial organization is relatively similar in the two countries in which the case studies are located (i.e. Spain and Austria). The one issue that remains controversial, however, in both settings is the status of the municipalities. In the Spanish autonomous regions of Catalonia and Aragon an intense process of re-structuring of the internal political division has been implemented, while in the Austrian *Bundesländer* no changes have been made.
- 2) Due to these similarities certain parallels can be drawn regarding the distribution of competences in Spain and Austria. At the same time, however, a number of differences should be highlighted.
- 3) Given the formal framework in which spatial planning has to operate, important differences emerge in the two countries, as well as between their respective regions.

Spatial planning practices are also shaped by differences at a range of levels including regional and local tiers:

- a) At the regional level differences exist between the practices in Catalonia and Aragon, as well as between Styria and Carinthia.
- b) At the supra-municipal level, both Catalonia and Aragon have their own autonomous entities (i.e. districts) which do not have recourse to any specific planning instruments. Styria, on the other hand, implements *ad hoc* plans corresponding to the *Bezirke*, though this is not the case in Carinthia.
- c) At the municipal level, the municipalities of la Terreta await the development of their own planning tools; by contrast, every municipality in the Metnitzer Berge disposes of its own tools.

Finally, it is important not to overlook the role of certain key actors, acting both as governmental and non-governmental agents, but not controlled by the public authorities,

→ ***What characterizes the implementation of policies that have a territorial impact in la Terreta? What features do the municipalities of la Terreta and the Metnitzer Berge have in common and what are the main differences?***

Four partial policies and their implications for la Terreta have been analysed:

- 1) Both the area's agricultural and rural development policies are very much conditioned by a scenario that is still very much under construction. The failure to implement innovative management tools in la Terreta demonstrates that these new actors will be obliged to perform on old stages.
- 2) There is virtually no management being undertaken of the protected areas, since it is of such little consequence for la Terreta. In this aspect to-date, only private agents have been active, but their strategies have not always been the most appropriate. Similar problems have been detected in relation to the area's forestry policy.
- 3) A major gap exists between infrastructure projects at the local or regional scale and those at the national scale. Thus, there are major shortcomings in the basic local road network, while future projects will serve solely to strengthen the radial character of the main network, rather than fostering a truly isotropic network. Further problems are to be found in the area's

water management and energy facilities. Here, several major projects are being planned (including, hydropower plants and high voltage power lines), mobilising strong social platforms opposed to such developments.

- 4) Heritage management is concerned primarily with a number of specific major investments aimed at recovering and promoting various structures of architectural interest. However, a global conception and recognition of the area's cultural heritage is lacking.

A review of the infrastructure and public service facilities at the municipal level highlights the following:

- a) In terms of infrastructure, a step forward has been taken in la Terreta, but these efforts need to continue and the management of certain networks (including waste water and sewage treatment plants) need to be planned according to the logic of the territory and not that of the political borders. In the Metnitzer Berge there are at least two examples demonstrating that this is possible.
- b) In terms of services, the situation has improved in la Terreta. However, the creation of commonwealths should continue (as in Metnitzer Berge).

→ ***What ideas can be derived from the questions raised above? What problems, challenges and opportunities are shaping la Terreta? What lessons can be drawn from the secondary case study?***

Four conclusions can be drawn:

- 1) The implementation of public policies is negatively affected by the lack of mechanisms and practices of coordination and cooperation, above all in Spain. Moreover, the impact of the administrative borders on these issues is overwhelmingly negative. As a result, spatial planning is still inadequate in la Terreta, both on the Catalan and Aragonese sides of the border.
- 2) The involvement of local society in the management of this area suffered a marked decline as a result of the rural exodus. However, this commitment has recovered and in some instance has become highly vociferous. The outcome is the foundation of platforms that seek a radical shift in the management of strategic resources (such as water) while calling for better infrastructure and services.
- 3) Landscape management today and into the future should be founded on the central role that must be played by farmers in a strategy for facing the global environmental crisis. Former fragmented landscape management strategies (i.e. the confrontation between 'agrarian' and 'environmentalist' approaches) have to disappear in order that the role of the farmers might be rethought. This objective has yet to be achieved in la Terreta, but it would appear to be the only way of guaranteeing the preservation of its landscape.
- 4) The government of a territory confounded by uncertainties depends on the effective combination of 'top-down' and 'bottom-up' strategies. Thus, on the one hand, the public authorities need a global vision of the territory and, at the same time, they need to empower democracy and guarantee its progress. On the other hand, a 'bottom-up' approach has to be able to transform individual initiatives into collective concerns. The necessity of rethinking current development patterns has to be strengthened. In the case study area, reclaiming its unity would represent a symbolic way of seeking to implement the policies that have been outlined above. In

this sense, its borders must once more become a meeting point, rather than serving as a delimiting barrier.



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## Recull d'altres fonts d'informació/Another information sources

### *Textos jurídics i administratius*

*A continuació es recullen els textos jurídics emprats i/o citats al llarg de la recerca. Hem ordenat els instruments per ordre alfabètic; un fet que ens ha permès agrupar-los per categories (lleis, decrets, anuncis). Dins de cada categoria, hem ordenat els textos en ordre cronològic, de més antic a més recent. Citem el nom del decret, seguit de la data i del contingut. Citem el document oficial on apareix aquest text, segons les tipologies que apareixen a la taula I.1 (annex I). Hem optat per traduir directament els títols dels textos en versió original en castellà, però no en els casos relatius al cos legal austríac. En aquests casos, conservem la versió originalen alemany i oferim una traducció entre parèntesi.*

Anunci de la Demarcació de Carreteres de l'Estat a Aragó sobre la Resolució de la Secretaria d'Estat d'Infraestructures i Planificació, de data 24 de maig de 2006, a través de la qual s'aprova l'expedient d'informació pública i definitivament l'estudi informatiu de la clau E11-E-150 "Autovia A-14 Lleida-frontera francesa. Tram: Lleida-Túnel de Viella" (BOE núm. 164).

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*Kärntner Raumordnungsgesetz* (Llei d'ordenació del territori de Caríntia) (LGBI núm. 76/1969), reformada el 2001 (LGBI núm. 136/2001).

*Kärntner Gemeindeplanungsgesetz* (Llei de planejament municipal de Caríntia) (LGBI núm. 23/1995).

*Kärntner Landes-Verfassungsgesetz* (Llei fonamental de Caríntia) (LGBI núm. 47/1930). Versió vigent aprovada al LGBI núm. 77/2010.

Llei 25/1982, d'agricultura de muntanya (BOE núm. 164).

Llei 2/1983, del 9 de març, d'alta muntanya (DOGC núm. 312).

Llei 23/1983, de 21 de novembre, de política territorial (DOGC núm. 385).

Llei 7/1985, del 2 d'abril, reguladora de les bases de règim local (BOE núm. 80).

Llei 12/1985, de 13 de juny, d'espais naturals (DOGC núm. 556).

Llei 5/1987, del 4 d'abril, del règim provisional de les competències de les diputacions provincials (DOGC núm. 826).

Llei 6/1987, del 4 d'abril, sobre l'organització comarcal de Catalunya (DOGC núm. 827).

Llei 7/1987, del 4 d'abril, per la qual s'estableixen i regulen actuacions públiques especials en la conurbació de Barcelona i en les comarques compreses dins la seva zona d'influència directa (DOGC núm. 830).

Llei 8/1987, del 15 d'abril, municipal i de règim local de Catalunya (modificada mitjançant el Decret Legislatiu 2/2003, del 28 d'abril, que permeté establir una nova llei de règim local –DOGC núm. 3887).

Llei 5/1988, de 28 de març, de creació de les comarques del Pla de l'Estany, del Pla d'Urgell i de l'Alta Ribagorça (DOGC núm. 992).

Llei 6/1988, de 30 de març, forestal de Catalunya (DOGC núm. 1057).

Llei 11/1992, del 24 de novembre, d'Ordenació del Territori d'Aragó (BOA núm. 142).

Llei 9/1993, del 30 de setembre, del Patrimoni Cultural Català (DOGC núm. 1807).

Llei 10/1993, del 4 de novembre, de comarcalització d'Aragó (BOA núm. 133).

Llei 1/1995, de 16 de març, d'aprovació del Pla General Territorial de Catalunya (DOGC núm. 2032).

Llei 8/1996, del 2 de desembre, de delimitació comarcal d'Aragó (BOA núm. 145).

Llei 12/1997, del 2 de desembre, de Parcs Culturals d'Aragó (BOA núm. 143).

Llei 6/1998, del 19 de maig, d'espais naturals protegits d'Aragó (BOA núm. 64).

Llei 7/1998, del 16 de juliol, a través de la qual s'aproven les directrius generals d'ordenació territorial per a Aragó (BOA núm. 89).

Llei 3/1999, del 10 de març, de Patrimoni Cultural Aragonès (BOA núm. 36).

Llei 7/1999, del 9 d'abril, d'administració local d'Aragó (BOA núm. 45).

Llei 23/2001, del 26 de desembre, de mesures de comarcalització (BOA núm. 149).

Llei 12/2002, del 28 de maig, de creació de la comarca de la Ribagorça (BOA núm. 63).

Llei 28/2002, de 30 de desembre, de creació de l'Institut per al Desenvolupament i la Promoció de l'Alt Pirineu i Aran (DOGC núm. 3081).

Llei 31/2002, de 30 de desembre, de mesures fiscals i administratives (DOGC núm. 3805).

Llei 43/2003, de 21 de novembre, de forests (BOE núm. 280).

Llei 8/2004, del 20 de desembre, de mesures urgents en matèria de medi ambient (BOA núm. 151).

Llei 8/2005, del 8 de juny, de protecció, gestió i ordenació del paisatge de Catalunya (DOGC núm. 4407).

Llei 3/2006, de 6 de juny, de modificació de la Llei 23/2001, del 26 de desembre, de mesures de comarcalització (BOA núm. 74).

Llei 12/2006, de 27 de juliol de mesures en matèria de medi ambient i de modificació de les lleis 3/1988 i 22/2003, relatives a la protecció dels animals, de la Llei 12/1985, d'espais naturals, de la Llei 9/1995, de l'accés motoritzat al medi natural, i de la Llei 4/2004, relativa al procés d'adequació de les activitats d'incidència ambiental (DOGC núm. 4690).

Llei 15/2006, del 28 de desembre, de forests d'Aragó (BOA núm. 149).

Llei 42/2007, del 13 de desembre, de patrimoni natural i de la biodiversitat (BOE núm. 299).

Llei 1/2008, del 20 de febrer, de contractes de conreu (DOGC núm. 5.082).

Llei 4/2009, del 22 de juny, d'Ordenació del Territori d'Aragó (BOA núm. 127).

Llei 23/2010, del 22 de juliol, de modificació de la Llei 1/1995 i de la Llei 23/1983 per a fixar l'àmbit de planificació territorial del Penedès (DOGC núm. 5681).

Llei 30/2010, del 3 d'agost, de vegueries (DOGC núm. 5708).

Ordre MAH/144/2005, d'1 d'abril, per la qual es declara refugi de fauna salvatge la finca Montrebei, al terme municipal de Sant Esteve de la Sarga (DOGC núm. 4363).

Ordre ARP/307/2005, del 7 de juliol, per la qual s'aproven les bases reguladores del pla pilot dels contractes globals d'explotació, i es convoquen els corresponents a l'any 2005 (DOGC núm. 4424).

Reial Decret 1664/1998, del 24 de juliol, pel qual s'aproven els Plans Hidrològics de Conca (BOE núm. 191).

Reial decret 329/2002, del 5 d'abril, pel qual s'aprova el Pla Nacional de Regadius (BOE núm. 101).

Reial Decret 752/2010, del 4 de juny, a través del qual s'aprova el primer programa de desenvolupament rural sostenible per al període 2010-2014 en aplicació de la Llei 45/2007, del 13 de desembre, per al desenvolupament sostenible del medi rural.

Reial Decret 329/2002, del 5 de abril, a través del qual s'aprova el Pla Nacional de Regadius (BOE núm. 101).

Resolució del 21 de juny de 2000 (Acord del Govern de 29 de maig de 2000, pel qual s'aprova definitivament el Pla especial de delimitació definitiva dels espais del PEIN aiguabarreig Segre-Noguera Pallaresa, aiguabarreig Segre-Noguera Ribagorçana i serra del Montsec) (DOGC núm. 3191)

Resolució MAH/3158/2004, del 10 de novembre (Acord del Govern de 2 de novembre de 2004, d'aprovació definitiva del Pla especial de delimitació definitiva dels espais del PEIN la Faiada de Malpàs, serra de Sant Gervàs, Vall Alta de Serradell i Collegats) (DOGC núm. 4267).

Resolució del 28 de març de 2006, de la Secretaria General per a la Prevenció de la Contaminació i el Canvi Climàtic, a través de la qual es formula la declaració d'impacte ambiental sobre l'evaluació de l'estudi informatiu "Autovia A-14 Lleida-Túnel de Viella", promulgada per la Direcció General de Carreteres del Ministeri de Foment (BOE núm. 101).

*Steirische Raumordnungsgesetz* (Llei d'ordenació del territori d'Estíria) (LGBl. Núm. 127/1974).  
Versió més recent aprovada al LGBl núm. 21/2010.

*Steirische Landes-Verfassungsgesetz* (Llei fonamental d'Estíria) (LGBl núm. 94/2005).

*Verordnung der Steiermärkischen Landesregierung vom 06/07/2009, mit der das Landesentwicklungsprogramm – LEP 2009 erlassen wird* (LGBl núm. 75/2009) (ordre del Govern d'Estíria, del 6 de juliol de 2009, pel qual s'aprova el *Landesentwicklungsprogramm*).

### **Comunicats de premsa**

Ministerio de Fomento (2009a): "Fomento adjudica el proyecto de construcción del tramo Puente de Montañana-Sopeira de la autovía A-14, en Huesca". Madrid, 23 de març de 2009 (disponible a <<http://www.fomento.es/NR/rdonlyres/8DEFBEC3-4182-434D-9EEC-EF9D9F9F9B99/65858/09032303.pdf>> [consultat l'11/01/2011]).

Ministerio de Fomento (2009b): "Fomento adjudica por 1,5 millones el proyecto del tramo Benabarre (este)-Viacamp de la autovía A-14 (Huesca)". Madrid, 25 de setembre de 2009 (disponible a <<http://www.fomento.es/NR/rdonlyres/2CE3C8C6-D25A-4571-8767-2C7432FA24C7/66163/09092501.pdf>> [consultat l'11/01/2011]).

### **Pàgines web i recursos online**

#### **a) Llocs web d'òrgans i entitats governamentals**

Ajuntament de Tremp: [www.ajuntamentdetremp.cat](http://www.ajuntamentdetremp.cat)

Associació per al Desenvolupament de la Ribagorça Romànica:  
<http://www.ribagorzaromanica.com/>

*Bundesanstalt für Bergbauernfragen*: <http://www.berggebiete.at/cms/index.php>.

*Bundeskanzleramt* d'Àustria: [www.austria.gv.at](http://www.austria.gv.at).

CEDESOR: [www.sobrarberibagorza.es](http://www.sobrarberibagorza.es).

Comunitat de Treball dels Pirineus: [www.ctp.org](http://www.ctp.org).

Generalitat de Catalunya: [www.gencat.cat](http://www.gencat.cat).

Govern d'Aragó: [www.aragon.es](http://www.aragon.es).

Govern d'Espanya: [www.la-moncloa.es](http://www.la-moncloa.es).

*Landesregierung* d'Estíria: [www.steiermark.at](http://www.steiermark.at).

*Landesregierung* de Caríntia: [www.ktn.gv.at](http://www.ktn.gv.at).

MFOM: [www.fomento.es](http://www.fomento.es).

MARM: [www.marm.es](http://www.marm.es).

Ministeri austríac de medi ambient i agricultura: [www.lebensministerium.at](http://www.lebensministerium.at).

Municipi d'Areny: [www.areny.com](http://www.areny.com).

Municipi del Pont de Montanyana: [www.puentedemontanana.es](http://www.puentedemontanana.es).

Municipi de Viacamp i Lliterà: [www.viacampylitera.es](http://www.viacampylitera.es).

Municipi de Sankt Georgen ob Murau: <http://st-georgen-murau.riskommunal.net>.

Municipi de Sankt Lambrecht: [www.stlambrecht.at](http://www.stlambrecht.at).

Municipi de Laßnitz bei Murau: [www.lassnitz-murau.at](http://www.lassnitz-murau.at).

Municipi de Metnitz: [www.metnitz.at](http://www.metnitz.at).

Österreichisches Raumordnungskonferenz: [www.oerok.gv.at](http://www.oerok.gv.at).

Unió Europea: [www.europa.eu](http://www.europa.eu).

#### **b) Llocs web d'entitats no governamentals**

Obra social Caixa Catalunya: [www.obrasocial.caixacatalunya.es](http://www.obrasocial.caixacatalunya.es).

Pàgina web d'IPCENA: [www.ipcena.org](http://www.ipcena.org).

Pàgina web de la Plataforma en defensa de las montañas de Aragón:  
<http://www.plataformamontanas.es/index.php>.

Pàgina web de l'Observatori del Paisatge: <http://www.catpaisatge.net/cat/index.php>.

Xarxa de custòdia del territori: [www.custodiaterritori.es](http://www.custodiaterritori.es).

### **c) Recursos per a la recerca**

AMAP (Austrian Map): [www.austrianmap.at](http://www.austrianmap.at).

Catàleg de la biblioteca de la Universitat de Saragossa: <http://biblioteca.unizar.es/>.

Catàleg de la biblioteca de la Universitat de Barcelona: [www.bib.ub.edu](http://www.bib.ub.edu).

Catàleg de la biblioteca de la Universitat de Graz: <http://yorick.uni-graz.at:8991/F?RN=667833421>.

Catàleg de la biblioteca de la Universitat de Viena: <http://aleph.univie.ac.at/F?RN=144792997>.

Digitaler Atlas Steiermark: [www.gis.steiermark.at/cms/ziel/73679/DE/](http://www.gis.steiermark.at/cms/ziel/73679/DE/).

Institut d'Estadística de Catalunya: [www.idescat.cat](http://www.idescat.cat).

Instituto Aragonés de Estadística: [http://portal.aragon.es/portal/page/portal/IAEST/IAEST\\_00](http://portal.aragon.es/portal/page/portal/IAEST/IAEST_00).

Instituto Nacional de Estadística: [www.ine.es](http://www.ine.es).

Institut Cartogràfic de Catalunya: [www.icc.cat](http://www.icc.cat).

Instituto Geográfico Nacional: [www.ign.es/ign/es/IGN/home.jsp](http://www.ign.es/ign/es/IGN/home.jsp).

Geocrítica: [www.ub.edu/geocrit/menu.htm](http://www.ub.edu/geocrit/menu.htm).

Google Maps: <http://maps.google.es/>.

Google Earth [aplicació informàtica].

Dialnet: <http://dialnet.unirioja.es/>.

Revista Ager: [www.ceddar.org/revista-ager\\_publicaciones\\_7.html](http://www.ceddar.org/revista-ager_publicaciones_7.html).

Revistes catalanes amb accés obert: [www.raco.cat](http://www.raco.cat).

Revista Espacio, Tiempo y Forma: <http://e-spacio.uned.es:8080/fedora/get/bibliuned:revistaETF/demo:Collection/view>.

Revista Papers: [www.iermb.uab.es/htm/revistaPapers.asp](http://www.iermb.uab.es/htm/revistaPapers.asp).

Revue de Géographie Alpine: <http://rga.revues.org/index.html>.

Servicio de Información Territorial de Aragón: <http://sitar.aragon.es>.

Sistema d'Informació Geogràfica del web de l'INAGA: <https://servicios.aragon.es/inasig/inicio.do?m=iniciar>.

Statistik Austria: [www.statistik.at](http://www.statistik.at).

Teseo (Base de dades de tesis doctorals del Ministeri d'Educació): <https://www.educacion.es/teseo>.

Tesis doctorals en xarxa: [www.tdx.cbuc.es](http://www.tdx.cbuc.es).

Visor SIGPAC: <http://sigpac.mapa.es/fega/visor/>.

### **d) Mitjans de comunicació**

Diario del Alto Aragón: [www.diariodelaltoaragon.es](http://www.diariodelaltoaragon.es)

Diari digital Vilaweb: [www.vilaweb.cat](http://www.vilaweb.cat)

Diari El País: [www.elpais.com](http://www.elpais.com)

Diari El Periódico de Cataluña: [www.elperiodico.cat](http://www.elperiodico.cat)

Diari El Periódico de Aragón: [www.elperiodicodearagon.com](http://www.elperiodicodearagon.com)

Diari El Punt: [www.elpunt.cat](http://www.elpunt.cat)

Diari Heraldo de Aragón: [www.heraldo.es](http://www.heraldo.es)

Diari La Mañana: [www.lamanyana.cat](http://www.lamanyana.cat)

Diari La Vanguardia: [www.lavanguardia.es](http://www.lavanguardia.es)

Diari Segre: [www.segre.com](http://www.segre.com)

#### e) Altres

Blog de la plataforma unitària contra l'autopista elèctrica:  
<http://autopistaelectricano.blogspot.com/2009/10/la-terreta-electrica-un-blog-para.html>

Blog "Areny de Noguera": <http://www.areny-noguera.blogspot.com/>

Blog "La Terreta elèctrica": <http://laterretaelectrica.blogspot.com/>

Blog "Pirinegros": <http://pirinegros.blogspot.com/2009/05/informacion-sobre-la-autopista.html>

Blog "Notícies de la Terreta": <http://sapeira.blogspot.com/>

Blog "La Terreta decideix": <http://www.laterretadecideix.blogspot.com/>

Blog de Carles Barrull: <http://carlesbarrull.blogspot.com/>

Pàgina web de Ramon Tremosa: [www.ramontremosa.cat](http://www.ramontremosa.cat)