

# Infinite Rural Systems in a Finite Planet: Bridging Gaps towards Sustainability



**EDITED BY**

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This volume assembles a collection of 61 short papers dealing with the challenging transitions experienced by rural systems in their quest for sustainability across the world. The articles are grouped into six broad themes with an overall aim to bridge some of the existing gaps identified in previous academic discussions. The research documented in this book was presented at the 26<sup>th</sup> Colloquium of the Commission on the Sustainability of Rural Systems of the International Geographical Union held in 2018. All the papers, published in four languages, were edited and double-blind peer-reviewed by a scientific committee of 28 international scholars.

*Ce volume rassemble une collection de 61 articles courts qui traitent les transitions complexes expérimentées par les systèmes ruraux sur leur chemin vers la durabilité à travers le monde. Les textes sont regroupés en six grands thèmes, ayant pour objectif de combler les écarts entre les différents positionnements identifiés dans des discussions académiques précédentes. Les recherches rassemblées dans ce livre ont été présentées au XXVI Colloque de la Commission sur le Développement Durable et les Systèmes Ruraux de l'Union Géographique Internationale, qui a eu lieu en 2018. Tous les articles, publiés dans quatre langues, ont été revus et évalués par les pairs en double aveugle, en deux tours, par un comité scientifique conformé par 28 chercheurs internationaux.*

Este volumen reúne una colección de 61 artículos breves que abordan las complejas transiciones experimentadas por los sistemas rurales en su camino hacia la sostenibilidad en todo el mundo. Los textos se agrupan en seis grandes temas, con el objetivo de tender puentes entre distintas posturas identificadas en debates académicos previos. Las investigaciones recogidas en este libro fueron presentadas en el XXVI Coloquio de la Comisión sobre la Sostenibilidad de los Sistemas Rurales de la Unión Geográfica Internacional, celebrado en 2018. Un comité científico formado por 28 académicos internacionales revisó y evaluó a ciegas por pares en dos rondas todos los artículos, publicados en cuatro idiomas diferentes.

*Este volume reúne uma coleção de 61 artigos breves que abordam as transições complexas vividas pelos sistemas rurais na sua procura pela sustentabilidade em todo o mundo. Os textos estão agrupados em seis temas amplos, com o objetivo de colmatar as lacunas identificadas em debates académicos prévios. As investigações reunidas neste livro foram apresentadas no XXVI Colóquio da Comissão para a Sustentabilidade dos Sistemas Rurais da União Geográfica Internacional, realizado em 2018. Todos os artigos, publicados em quatro idiomas diferentes, passaram por um processo de edição e revisão por pares, em regime de duplo anonimato, por uma comissão científica de 28 académicos internacionais.*

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## Presentation

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### *1. Rationale for the Colloquium and for This Book*

Since its inception in the late 1980s and early 1990s (Blewitt, 2008; Potter et al., 2008), Rural Geography has internalised the issue of sustainability as a core concern of the discipline. However, the yearly discussions of the International Geographical Union Commission on the Sustainability of Rural Systems (IGU CSRS) held in the successive colloquia over the last 25 years underscore inherent tensions and contradictions regarding sustainability that emerge in the challenging and complex transition of rural systems. In this context, the 26<sup>th</sup> CSRS Colloquium to be held in Santiago de Compostela and different rural areas of Galicia in 2018 has been specifically designed to focus on bridging some of the gaps raised in the ongoing academic debates. The wide thematic range of short papers included in this volume resulting from the received submissions acknowledge the pertinence of this approach. As an overall impression, the debates regarding sustainability acknowledge that the Earth is finite, but the existing gaps can be addressed, and examined, through infinite rural systems.

Despite “system” being a contested term in the social sciences (Cawley, 2013), it frames a body of research that takes into account internal and external interrelationships, embracing social, cultural, political (including planning), environmental and economic issues (Bowler, 1995, 2001). Reconciling these broad, but often contradictory themes, is part of the aim of bridging the gaps for the purposes of the 26<sup>th</sup> CSRS Colloquium. Thus, it is the basic objective of this book.

Furthermore, identified gaps that are considered in this volume are related to geographical scales; for instance, between the global arena (globalisation, world trade arrangements, global and climate change, etc.) and regional and local spaces of adaptation, or contestation. The regulatory spaces of nation-states (with or without devolved institutions) and supra-national structures such as the European Union (EU) interact

at multiple scales, resulting in a complex web of inter-relationships. Local engagement appears to be a basic feature in rural societies (Halfacree, 1993; Woods, 2005; Bessière, 2012); consequently, most of the book chapters interrogate the local scale. But this has not detracted attention from the other interrelated geographical scales also present, in order to comply with the overall endeavour of bridging the gaps towards sustainability.

The call for papers for the 26<sup>th</sup> CSRS Colloquium was announced at the 25<sup>th</sup> CSRS Colloquium held in Ho Chi Minh (Vietnam) in April 2017 and later widely disseminated. That document included a consistent set of questions around six broad themes inviting scholars to interrogate bridging the gaps towards sustainability of rural systems. Accordingly, these broad themes have been used for structuring this book's sections. They are as follows:

- I. Bridging gaps between agri-food networks.
- II. Bridging gaps between rural (multifunctional?) activities.
- III. Bridging the gap between conflicting land-uses.
- IV. Bridging gaps between rural imageries, and the “grim reality”.
- V. Bridging gaps with rural remote, low-density and mountain areas.
- VI. Bridging gaps between urban expansion, and agriculture and open spaces preservation.

The rationale and specific questions designed for each of the themes are shown as introductory texts of the six sections of this book. In line with the commitment to the official languages of the 26<sup>th</sup> CSRS Colloquium, these texts are published in English, French, Spanish and Portuguese.

## *2. The Six Sections of This Book*

Through a process that will be explained in the fifth section of this Presentation, 61 short papers have been selected for publication in this book. The distribution between themes has been balanced between Sections II to VI, each with around ten chapters. Sections II and IV are those that have attracted greatest attention, each with 13 chapters. This focus is to be predicted given that rural multifunctionality is a key, and contested, theoretical construct in the CSRS scientific activities and, indeed, it was the central topic of the 25<sup>th</sup> CSRS Colloquium (under the theme “Rural Spaces in a Multifunctional Transition: Experience and Adaptation”). Thus, there is an ongoing discussion in this direction, underpinned by significant contributions such as Wilson's (2007) essay, which this book uses as a key source. The strong interest for Section IV was not expected, given that the central issue under discussion — the need to bridge gaps between rural imageries and the “grim reality” of rural areas — is controversial and comes from the literature on landscape studies (Paül, Tort and Sancho, 2011). This therefore allows us to infer that research focussed on this tangible/intangible rural landscape gap offers a fruitful path that might continue in the forthcoming years.

Sections V and VI have attracted, respectively, 11 and 10 contributions. Ironically, it can be argued that they represent opposing geographical poles: on the one hand, Section V deals with rural remote, low-density and mountain areas, which experience significant and persistent issues; on the other hand, Section VI is devoted to peri-urban agriculture and city's countryside as a whole, typically showing considerable dynamism but pressured between the needs of urban expansion and, in parallel, of farmland and open spaces preservation. In

the previous CSRS colloquia there have been concerns that the type of discussions held in Section VI of this book might be overwhelming and become the predominant focus of the CSRS, while the “deep rural” in Section V of this book might be undervalued. Prof Frans Thissen expressed this opinion at the 12<sup>th</sup> CSRS Colloquium held in Aberdeen (Scotland) in 2004. This book is proof that rural remote, low-density and mountain areas remain an undeniable focus of academic attention by the CSRS community.

Section III, devoted to bridging the gap between conflicting rural land-uses, has attracted the interest of nine contributors. Most show GIS to be, increasingly, a central tool in our discipline. Surprisingly, Section I, which was planned to showcase one of the fundamental issues with regard to the sustainability of rural systems in the age of globalisation and resistance to globalisation — agri-food networks —, has only received five papers. This could be due to the adoption of these topics by a specific IGU commission on Agricultural Geography (officially, Commission on Agricultural Geography and Land Engineering), which was formally established in 2016. However, this scenario is not new, given that, as shown in the epilogue of this book, in parallel to the CSRS (or its predecessors in Rural Geography), there have been, intermittently, IGU commissions on Agricultural Geography in the past. In addition, a long-established IGU Commission on Land Use and Land Cover Change exists and there is an evident partial overlapping with the CSRS *raison d'être*. In any case, the need for strengthening cooperation between IGU commissions is evident. Indeed, in the past, some CSRS colloquia were concurrently held with other commissions — e.g. the 12<sup>th</sup> CSRS in Aberdeen in 2004, with the Commission on Land Use and Land Cover Change; (the proceedings edited by Mather, 2005).

This book also includes an epilogue devoted to a significant person in the history of Rural Geography in Spain: Prof Roser Majoral, a Catalan geographer who held a Chair of Regional Geography at the University of Barcelona from 1989 to 2005, when she passed away at the age of 63. Her contribution was not only fundamental for this discipline, but for the internationalisation of Spanish Geography. In addition, she played an important role in the evolution of the IGU internal structure, with regard to the Rural Geography Commission (in its various names) during the 1980s and early 1990s. The first CSRS Colloquium was held in Montréal (Canada) in 1993, one year after the IGU Study Group on the Sustainability of Rural Systems was created in Washington (in 1996, it attained the IGU Commission status). The decision taken in 1992 is directly because of Roser Majoral's involvement in splitting the previous IGU Commission on Rural Geography (then called “Changing Rural Systems”) into two Study Groups: one, the precedent of the CSRS; the other, the current IGU Commission on Marginalisation, Globalisation, and Regional and Local Responses. Again, the cooperation between neighbouring IGU commissions is as a relevant issue.

### 3. *The Book Chapters*

Section I contains five chapters devoted to bridging the gaps between agri-food networks: “conventional” and “alternative”, globalised and non-globalised, etc. In Chapter 1, Pierre Guillemin, Michaël Bermond and Philippe Madeline discuss the global participation of the vegetable production networks originated in Normandie (France). Chapter 2 by María Hernández Hernández, Enrique Moltó Mantero and Álvaro Morote Seguido

address the alternative agri-food networks that exist in the mountainous inland area of the province of Alicante/Alacant (Spain). The impact of the crisis in the Iberian Pork industry in the Mountain Range of Huelva (Spain) is the theme for Chapter 3 by Cristina Pérez-Mora and three co-authors. Celina Solís-Becerra documents in Chapter 4 the existing tension between alternativeness, resistance to globalisation and tradition in food production in Teopisca (Mexico). Chapter 5 by Ana Zazo Moratalla and Isidora Troncoso González closes Section I, with a case-study discussion on alternativeness of agri-food networks in the Concepción Metropolitan Area (Chile).

Section II includes 13 chapters around the notion of multifunctionality, particularly concerned with the compatible and/or contradictory connections between different activities in rural systems across the world. Under this umbrella, Chapter 6 by Douglas K. Bardsley and Elisa Palazzo questions the potential of UNESCO World Heritage designation of a particular peri-urban area of Adelaide (Australia) in the context of climate change adaptation. Laurent Bruckmann in Chapter 7 discusses multifunctionality as a factor for resilience in the case of four rural towns located in the central valley of the SÉNÉGAL river (all of them in Senegal and neighbouring Mauritania). Julien Frayssignes and four co-authors consider, in Chapter 8, the contribution of sustainable gastronomy to rural development in several European Mediterranean areas (located in Catalonia, Croatia, Cyprus, France, Greece, Italy, Portugal and Slovenia). Chapter 9 by Felipe da Silva Machado deals with farming resilience in the rural hinterland of Rio de Janeiro (Brazil). In Chapter 10, Laura Pauchard, Maxime Marie and Philippe Madeline deliver tools for extending plot exchange practices across Western France, departing from current experiences in the Bretagne region. María de los Ángeles Piñero-Antelo, Jesús Felicidades-García and Brendan O’Keeffe compare the multifunctionality of policies and practices developed in Galician and Irish fishing areas in Chapter 11. Chapter 12 by Aida Pinos Navarrete and Juan Carlos Maroto Martos identifies the contribution to multifunctionality of EU rural development policies in several municipalities containing spas in Andalucía (Spain). Chapter 13 presents a conceptualisation of rural sustainability by Anthony Sorensen. Paulina Tobiasz-Lis and Pamela Jeziorska-Biel analyse two thematic villages in Poland to examine their multifunctionality in Chapter 14. In Chapter 15, Shuangshuang Tu and four co-authors discuss a case of rural restructuring in the suburbs of Beijing (China). Néstor Vercher, Javier Esparcia and Juan R. Gallego-Bono propose a methodological framework for studying social innovation in rural areas in Chapter 16, focussing on two case-study areas in Spain: Serranía Suroeste Sevillana and Eivissa-Formentera. Mitsuru Yamamoto and three co-authors document, in Chapter 17, the mobility of a German population to rural Tirol (Austria). Chapter 18, authored by Yingnan Zhang and five co-authors, close Section II highlighting the importance of e-commerce in driving rural restructuring in Xiaying (China).

Nine chapters in Section III document conflicting rural land-uses, with a particular focus on environmental protection devices affecting previous, ongoing and/or new human activities. Diego Cidrás shows, in Chapter 19, how Eucalyptus has expanded since the Fragas do Eume Natural Park (Galicia) was designated, despite its official ban in the name of conservation of native forests. Chapter 20 by Sonia Graham deals with the role of social capital in controlling weeds in New South Wales (Australia). Ioan Ianoş and Cristian Ionică



analyse in Chapter 21 the conflicts caused by Danube floods in a Romanian rural town. The driving factors of land-use change in An Giang province (Vietnam) are researched by Thuy Ngan Le and Gerardo E. van Halsema in Chapter 22. Chapter 23, by Thibaut Preux, outlines a specific dataset for measuring the transformation of hedgerows landscapes (*bo-cage*) in a catchment area in Calvados (France). In Chapter 24, Serge Schmitz and Vincent Vanderheyden discuss the consequences for tourism and agriculture since the designation of two *Grands Sites Paysagers* in Wallonie (Belgium). Rocío Silva Pérez and Víctor Fernández Salinas illustrate in Chapter 25 the contradictory policies delivered in the protected cultural landscape of Punta Nati (Menorca, Balearic Islands). Chapter 26, by Alejandro Vallina Rodríguez, documents the quantification of landscape visual quality in an area located in Asturias (Spain). In the last contribution of Section III, Chapter 27, Marcin Wójcik and Karolina Dmochowska-Dudek use land-use/land-cover change in Łódź Agglomeration (Poland) to model the rural locations most vulnerable to conflicted land uses.

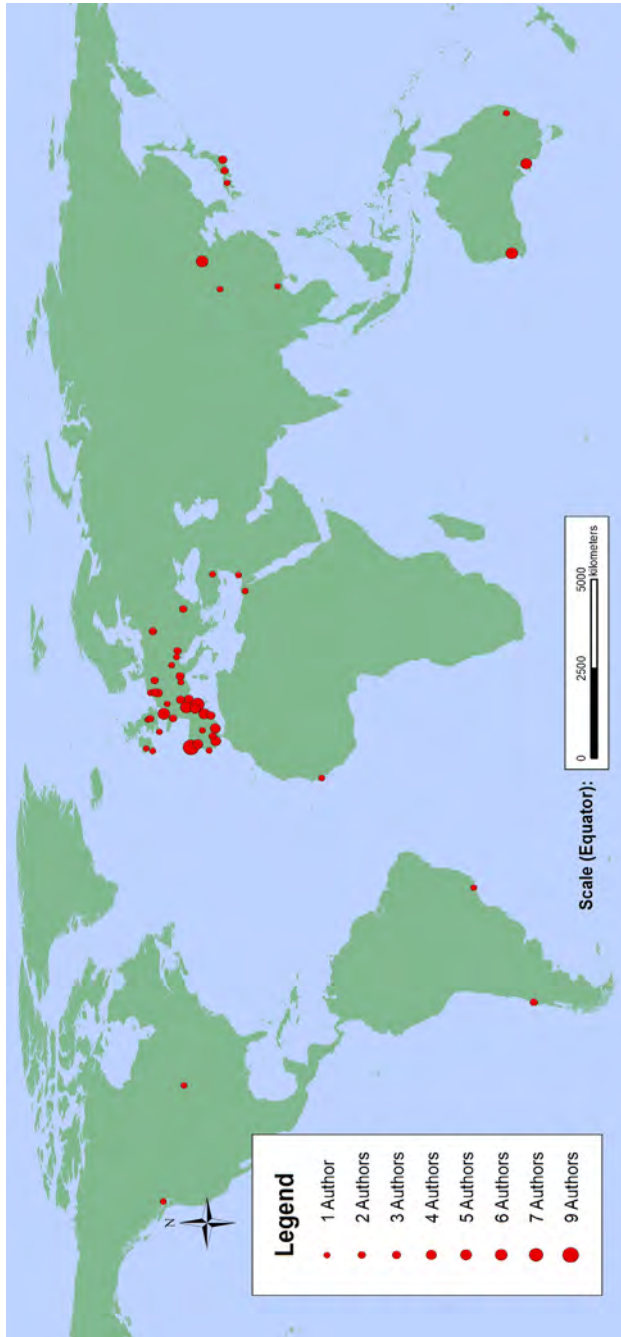
Section IV includes papers which discuss the gap between representations, imageries, imaginations and perceptions attached to rural areas commonly based on the so-called “rural idyll”, on the one hand, and the frequent material and tangible “grim reality”, on the other. It begins with Luis Martín Agrelo Janza’s Chapter 28 which documents a civil society campaign to designate a Natural Park in Galicia under the rural idyll lens. Chapter 29 by Irit Amit-Cohen discusses how cultural landscapes conceptualisation has evolved and the consequential impacts in rural management, internationally, and particularly in Israel. Again, Chapter 30 by Mary Cawley uses the rural idyll notion to explore rural Irish migrants’ perceptions. Isabelle Duvernoy and three co-authors analyse, in Chapter 31, the experience of nature correlated to several spatial categories in Occitanie (France). Salah Eisa, in Chapter 32, focusses on the modernisation of rural houses in Egypt. Kang Suk kyeong examines the effects of the influx of Syrian refugees into the town of Çukurkuyu (Turkey) in Chapter 33. Chapter 34 by Lucrezia Lopez and Petros Petsimeris reflects on the literary imagination of the rural areas located around the Way of Saint James. Aleksandar Lukić and Petra Radeljak Kaufmann in Chapter 35 discuss the rural idyll concept when analysing the academic visions of the countryside in Croatia. Valerià Paül, Juan Manuel Trillo Santamaría and Roberto Vila analyse in Chapter 36 how the Ribeira Sacra area (Galicia) has been bordered, thus conceived in terms of social construction of landscapes and regions. Chapter 37 by Martin Phillips, Darren Smith and Hannah Brooking focus, too, on the idyllic constructions of rurality correlated to rural gentrification in particular locations of south-eastern England. In Chapter 38, Cornelia Steinhäuser and Tillmann K. Buttschardt attempt to understand how indigenous worldview fosters tangible and intangible values in the landscape of a particular community in the Argentinean Andes. Katsuyuki Takenaka and Karin Kamikawa also study the perception of rural sections of the Way of Saint James in Chapter 39. Chapter 40, Joan Tort Donada and Albert Santasusagna Riu concludes Section IV by positioning Ildefonso Cerdà’s thoughts in relation to rural idyll conceptions.

The chapters included in Section V are intended to bridge the gap between the rural areas lagging behind — remote, mountainous, low-density, etc. — and other rural and urban areas. Ricardo Bento and three co-authors begin Section V by discussing the geographical extension of low-density rural areas in Portugal in Chapter 41. Ana Maria de Souza Mello

Bicalho studies, in Chapter 42, the latex industry in one of the remotest and most sparsely populated regions in the world: the Brazilian Amazonas. In Chapter 43, Jaime Escribano Pizarro and Néstor Vercher Savall show how young people in a low-density rural area of Aragón (Spain) suffer from vulnerability. Chapter 44 by Ana Firmino provocatively suggests that rural Portugal can become a desert in 2080 by extrapolating the huge forest fires effects experienced in places such as Pampilhosa da Serra in 2017. Fiona Haslam McKenzie discusses in Chapter 45 the “Royalties for Regions” policy developed for the non-metropolitan regions of Western Australia. In Chapter 46, Cristina Herraiz and Javier Esparcia analyse the social networks in the context of the implementation of EU policies in Serranía de Cuenca and north-east of the province of Castelló (Spain). Roy Jones and five co-authors review in Chapter 47 mining in Western Australia through the lens of sustainability theorisation. Chapter 48 by Doo-Chul Kim examines the depopulation experienced in the Chinese borderlands with North Korea, an area where ethnic Koreans have outmigrated while Han Chinese are immigrating. Francisco Navarro Valverde and Eugenio Cejudo García assess the effects of the EU rural development policies in the so-called “deep rural” areas of Andalucía (Spain) in Chapter 49. In Chapter 50, Alejandro Otero Varela and Valerià Paül discuss the inception of the EU rural development paradigm in Galicia through a unique policy development in the 1990s. The last contribution of Section V, Chapter 51 by Antoni F. Tulla and Ana Vera, proposes measuring comparative advantage in the Catalan Pyrenees.

The last section, VI, attempts to bridge the gaps between urban expansion, on the one hand, and agriculture and open spaces preservation, on the other. It begins with a comparative analysis of post-productivist agricultural experiences in two Biosphere Reserves, one in the metropolitan area of A Coruña (Galicia) and another in the metropolitan area of Barcelona (Catalonia), developed in Chapter 52 by Xosé A. Armesto López, Rubén C. Lois González and M. Belén Gómez Martín. In Chapter 53, Holly R. Barcus considers the ethnic minority Kazakh rural population who recently migrated to Ulaanbaatar (Mongolia). Chapter 54 by Valerio Bini and three co-authors describes rural-urban linkages in terms of food production in the metropolitan area of Milano (Italy). Marie Houdart, Salma Loudiyi and Mathilde Caritey outline two experiences preserving peri-urban agriculture in Auvergne (France) in Chapter 55. Chapter 56 by Lucette Laurens, Pascale Scheromn and Thomas Prud'hon investigate organic farming in Hérault et Gard (France). Christine Margetic, Oumar Sy and Sécou Omar Diédhiou focus on peri-urban agriculture around the city of Ziguinchor (Senegal) in Chapter 57. In Chapter 58, the spatial dynamics of a peri-urban delta plain located near Barcelona (Catalonia) are monitored by Josep M. Panareda and Maravillas Boccio. Guy M. Robinson and three co-authors consider in Chapter 59 the interaction between urban encroachment and fire risk in the environs of Adelaide and Port Lincoln (Australia). Chapter 60 by Bingjie Song and Guy M. Robinson provides an analysis of the agricultural transformations experienced by the impact of the urban land market in Shaanxi province (China). The last chapter of Section VI and the book, by Frans Thissen, provides an overall reflection on the evolution of Rural Geography as a discipline in the Netherlands.

Figure 1. Authors' institution location in the world. Source: Map developed by Luis Martín Agrelo and Valerià Pàuil, with <http://thematicmapping.org/> (accessed on 19/5/2018) as base map.



#### 4. Geographical Coverage

In total, 128 authors have contributed the 61 papers published as book chapters in this volume. The geographical distribution of their work places is shown in Figure 1. Table 1 summarises the pattern by making use of the conventional geographical division amongst six continents, adapted to the division between Global North and Global South which is useful here for discussion purposes. Of course, we do not think that the “six continents” are the best way to regionalise the world as they are a Eurocentric construction (see Lewis and Wigen, 1997 and Grataloup, 2009), but they are globally understood and, to some extent, assumed.

Table 1. Geographical coverage of the 61 book chapters.

North-South divide	Continent (and some countries)		Authors' institution location		Case-study rural area/location/system	
			Figure	%	Figure	%
Global North	Europe	Spain	39	30.47	23	31.08
		France	21	16.41	7	9.46
		Other	33	25.78	21	28.38
	Australia	12	9.38	6	8.11	
	Japan	6	4.69	0	0.00	
	North America	2	1.56	0	0.00	
Global South	Asia (without Japan)		10	7.81	9	12.16
	Latin America		3	2.34	5	6.76
	Africa		2	1.56	3	4.05
Total			128		74	

More than 70% of the contributors come from Europe, particularly from Spain (30,5%) and France (16,4%). The high participation from Spain is evidently linked to the location of the 26<sup>th</sup> Colloquium, to be held in the Iberian Peninsula. However, it is relevant in the sense that the overall Spanish contribution to world geographical discussions remains weak (see the epilogue of this book). For instance, in some of the previous volumes of the CSRS, Spain has had a modest contribution — e.g. at the 10<sup>th</sup> Colloquium held in South Africa in 2002, three of 19 (Makhanya and Bryant, 2004); at the 12<sup>th</sup> Colloquium held in Scotland in 2004, two of 29 (Mather, 2005); at the 15<sup>th</sup> Colloquium held in Morocco in 2007, five of 32 (Kerzazi, Ait Hamza and El Assad, 2011); at the 19<sup>th</sup> Colloquium held in Ireland in 2011, one of 26 (Cawley, Bicalho and Laurens, 2013); and at the 21<sup>st</sup> Colloquium held in Japan in 2013, two of 14 (Kim, Firmino and Ichikawa, 2013).

The contribution by 21 French colleagues is also meaningful as France has not been very active in previous colloquia, either — using the same examples: one of 19 (Makhanya and Bryant, 2004), one of 29 (Mather, 2005), five of 32 (Kerzazi, Ait Hamza and El Assad, 2011), two of 26 (Cawley, Bicalho and Laurens, 2013) and none in the volume by Kim, Firmino and Ichikawa (2013) from the 21<sup>st</sup> Colloquium held in Japan in 2013. In this sense, the event in 2018 has been able to attract the attention of two countries which are usually relatively absent in the CSRS activities. It is therefore important to highlight

the choice of a Spanish location for the 26<sup>th</sup> Colloquia as an important motivation for a major involvement from this country and its neighbour France.

Except in one case (Chapter 34, with a French co-author, Petros Petsimeris), all the contributions by French scholars are in French. However, a significant proportion of the papers authored or co-authored by Spanish scholars are in English (Chapters 11, 19, 20, 26, 28, 50, 51, 52 and 58). This might indicate a motivation by Spanish geographers to increasingly participate in international academic discussions.

As evidenced in Table 1, the participation of other European colleagues is significant. Eleven different countries are represented beyond the two already mentioned: Austria, Belgium, Croatia, Ireland, Italy, the Netherlands, Poland, Portugal, Romania, Slovenia and United Kingdom. The overall contribution from European colleagues (72.66%) reflects the importance CSRS activities have for this continent. Given the opportunity to use Portuguese language in this Colloquium and the proximity of Galicia and Portugal, more Portuguese contributions were expected. There are only two texts from Portugal, and only one is in Portuguese (Chapter 41). In addition, there is one contribution in Galician (Chapter 36), which is generally understood to be part of the Portuguese language domain.

Significantly, Australia shows an ongoing strong presence in the CSRS colloquia; in this book, almost 10% of all the authors are Australian, totalling five papers. This presence is consistent with previous CSRS events and publications and it is possibly related to the fact that Australian Rural Geography is highly attuned to international shifts of paradigm, rapidly adapting its scientific approaches to changing circumstances (Tonts, Argent and Plummer, 2012). Similarly, there is a similar Japanese participation, with 5% of the total authors and three papers, but the Australian contribution is more surprising given the small population of that nation compared to that of Europe or Japan.

North America is only represented by two authors who did not contribute chapters about this geographical region: Solís-Becerra's Chapter 4 is about Teopisca (Chiapas, Mexico) and Barcus' Chapter 53 deals with the Kazakh minority in Mongolia. This is relevant as in the past North American colleagues were more active in some of the previous colloquia. Analysing the five books that document past Colloquia North American contributions include three of 19 (Makhanya and Bryant, 2004), four of 29 (Mather, 2005), one of 32 (Kerzazi, Ait Hamza and El Assad, 2011), two of 26 (Cawley, Bicalho and Laurens, 2013) and one of 14 (Kim, Firmino and Ichikawa, 2013). Although the trend could seem inconclusive, with these five precedents and this book as well, it seems that North America is participating less and less. Given the importance the discipline of Geography enjoys in the United States, evidenced in the massive annual events organised by the Association of American Geographers, the North American low participation in the Colloquia is surprising.

Globally, the Global North contributors represent almost 90% of the authorships of this book. This is a frustrating situation that underscores the persistent scientific divide between the Global North and the Global South that exists in our discipline. While ten of the authors are from Global South Asia, mostly from China, the number of Asian participants remains low for the importance of the geographical community in Asia. Additionally, the Organising Committee of this 26<sup>th</sup> CSRS Colloquium made a strong

pitch to admit Spanish and Portuguese as official languages to encourage Latin American geographers to be involved. There was also a concerted effort to spread information about the event in Latin America. However, and unfortunately, only three authors have contributed from Latin America.

The scant Latin American involvement in the IGU is a situation about which the IGU is aware; its leaders have publicly acknowledged that the language barrier prevents more participation (Ronald F. Abler's, president of the IGU, highlighted this in a panel session in 2011, whose notes are available at: [http://www.aag.org/galleries/project-programs-files/Geography\\_in\\_the\\_Americas\\_Panel\\_Notes.pdf](http://www.aag.org/galleries/project-programs-files/Geography_in_the_Americas_Panel_Notes.pdf), accessed on 19/5/2018). Our experience for this book shows that, by accepting papers in Spanish and Portuguese, Latin American colleagues will not automatically attend. The global geographical community has to think carefully to ensure that scholars from the Global South can effectively contribute.

In general terms, the chapters are linked to the local scale, which is relevant when considering rural spaces (Bessière, 2012) and which has been the object of the so-called "rural locality" studies (Halfacree, 1993; Woods, 2005). There are two papers that cannot be located geographically: Anthony Sorensen's Chapter 13 provides a conceptualisation of rural sustainability and Joan Tort Donada and Albert Santasusagna Riu's Chapter 40 write on Ildefonso Cerdà. Otherwise, we have identified 74 case-study rural areas/locations/systems studied in the remaining 59 chapters.

It can be inferred from Table 1 that there is a sort of transference occurring: the Global South represents 12% of the authorships but contributes 23% of the total case-study rural areas/locations/systems in this book. This is particularly evident in Latin America and Africa. It is apparent that several authors from the Global North are studying the Global South. This may be because Global South PhD candidates are writing their theses in the Global North, where their Global North PhD supervisors co-author their respective book chapters or, more directly, because Global North researchers are studying the Global South dynamics. To name a few, Felipe da Silva Machado studies Rio de Janeiro's hinterland (Brazil) from Plymouth in the United Kingdom (Chapter 9); Thuy Ngan Le and Gerardo E. van Halsema report on an area of the Mekong Delta (Vietnam) from Wageningen in the Netherlands (Chapter 22); Cornelia Steinhäuser and Tillmann K. Buttschardt document Nazareno (Salta, Argentina) from Münster in Germany (Chapter 38); Doo-Chul Kim examines peri-urban Yanji (Yanbian Korean Autonomous Prefecture, China) from Okoyama in Japan (Chapter 48); and Christine Margetic and Sécou Omar Diédhiou write about peri-urban Ziguinchor (Casamance, Senegal) from Nantes in France (Chapter 57).

##### *5. The Practical Reasons for This Book and Its Process*

The common output of geographical research is in the form of papers published in indexed academic journals; this has been the option for at least three of the last CSRS colloquia. For the 22<sup>nd</sup>, held in Romania in 2014, several presented papers were published in the *Carpathian Journal of Earth and Environmental Sciences* (volume 10(3), published in 2015); for the 24<sup>th</sup>, held in Belgium in 2016, in *Belgeo* (volume 4, published in 2016) and *Bulletin de la Société Géographique de Liège* (volume 69, published in 2017); for the 25<sup>th</sup>, held in Vietnam in 2017, in *Science & Technology Development Journal* (publication

pending). However, the problem with managing the publication through journals is that they appear after the event and they depend on the *ex post* submission of papers and the review process of the respective journal. For this reason, it was decided there should be a publication in the form of a book available before the 26<sup>th</sup> CSRS Colloquium. This option ensures there is a publication, given that the IGU expects that its commissions, including the CSRS, continually prove the continuity and consistency of its scientific activities and outputs.

However, the option of a book also has its own risks, particularly its scientific quality if it was a mere volume of proceedings. For this reason, it was decided that there should be a systematic peer-review process that will be outlined later in this section. In addition, when the CSRS Steering Committee met in the magnificent Núi Sam mountain (Vietnam) in April 2017, several colleagues argued that, if the book was going to publish all the papers, this would render the papers ineligible for submission to peer-reviewed indexed journals. In most of the represented countries the scholarly assessment of scientific activity depends on publishing in indexed journals. In some countries, like Spain for example, a book is not considered a legitimate scientific publication. Accordingly, it was decided that the book should consist of a collection of peer-reviewed extended abstracts that could later be converted into journal papers, if the authors wished to do so. If a journal paper in *Rural Geography* is normally around 9,000 words (the maximum length accepted by *Sociologia Ruralis* is 8,000 words; for *Journal of Rural Studies*, 10,000 words), it was decided that the maximum length for an extended abstract for the 26<sup>th</sup> CSRS Colloquium should be 3,000 words. Although the majority of the received submissions were less than 3,000 words, some of the book chapters here included are longer post the refereeing process.

Each extended abstract, according to the template for submissions, available in the four official languages of the 26<sup>th</sup> CSRS Colloquium, had to contain adequate scientific contents following a basic structure consisting of: an introduction where the problem/objective of the paper is clearly stated; a theoretical section containing the relevant literature describing the theoretical and conceptual underpinnings of the subject covered; a methodological section to explain how the research was conducted; results including the findings; and, finally, some concluding remarks with a discussion where results are discussed demonstrating how the results are relevant, useful and/or limited. As they are not official IGU languages, texts written in either Spanish or Portuguese, were required to include a short abstract in English of a maximum length of 200 words.

For the purposes of this book, the submitted extended abstracts that met the required academic standards are published as chapters. In January 2017, 71 extended abstracts were received and ten were either rejected or voluntarily withdrawn by the authors during the double-blind peer-reviewing process conducted from January to March 2017. In the first round, if one of the referees decided to reject the paper but the other disagreed, the document could be modified and re-sent for the second round. In the second round the papers with major changes required in the first round, or rejected by one referee, were re-reviewed. In the second round the approval for acceptance by both referees was necessary. The referees were selected depending on their linguistic capacities, their scientific expertise on the topic and the location covered by the paper. A questionnaire, available in

the four official languages of the 26<sup>th</sup> CSRS Colloquium, with 15 questions was provided to guide referee's assessment. The completed assessment was then sent to authors by the editors, guaranteeing the anonymity of the review process. The invaluable cooperation of the referees is acknowledged, especially those whose mother tongue is English, given that they had to not only review but also in some cases, edit the texts to ensure the correct English expression conventions were followed in the documents which are now published in this book. The referees are listed in the next section. The work of the referees has significantly improved the early drafts of many of the papers.

#### 6. *The Referees*

- Irit Amit-Cohen (איליא-רוב תטיסרבינא) = Bar-Ilan University, Israel).
- Holly Barcus (Macalester College, United States).
- Ana Maria Bicalho (Universidade Federal do Rio de Janeiro, Brazil).
- Mary Cawley (National University of Ireland, Ireland).
- Ana Firmino (Universidade Nova de Lisboa, Portugal).
- Fiona Haslam McKenzie (University of Western Australia, Australia).
- María Hernández (Universitat d'Alacant/Universidad de Alicante, Spain).
- Scott Hoeffle (Universidade Federal do Rio de Janeiro, Brazil).
- Ioan Ianoş (Universitatea din Bucureşti, Romania).
- Roy Jones (Curtin University, Australia).
- Doo-Chul Kim (岡山大学 = Okayama University, Japan).
- Lucette Laurens (Université Paul Valéry, France).
- Rubén C. Lois González (Universidade de Santiago de Compostela, Galicia).
- Aleksandar Lukić (Sveučilište u Zagrebu, Croatia).
- Christine Margetic (Université de Nantes, France).
- Maxime Marie (Université de Caen Normandie, France).
- Fernando Molinero (Universidad de Valladolid, Spain).
- Josep Maria Panareda (Institut d'Estudis Catalans, Catalonia).
- Valerià Paül (Universidade de Santiago de Compostela, Galicia).
- Guy Robinson (University of Adelaide, Australia).
- Eugenio Ruiz Urrestarazu (Euskal Herriko Unibertsitatea, The Basque Country).
- Serge Schmitz (Université de Liège, Belgium).
- Katsuyuki Takenaka (愛知県立大学 = Aichi Prefectural University, Japan).
- Frans Thissen (Universiteit van Amsterdam, The Netherlands).
- Joan Tort (Universitat de Barcelona, Catalonia).
- Juan M. Trillo-Santamaría (Universidade de Santiago de Compostela, Galicia).
- Antoni Tulla (Universitat Autònoma de Barcelona, Catalonia).
- Ana Zazo (Universidad del Bío-Bío, Chile).

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Santiago de Compostela/Perth, 21 May 2018.

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## I. BRIDGING GAPS BETWEEN AGRI-FOOD NETWORKS

### I. COMBLER LES ÉCARTS ENTRE LES RÉSEAUX AGROALIMENTAIRES

#### I. TENDER PUENTES ENTRE REDES AGROALIMENTARIAS

#### I. COLMATAR LACUNAS ENTRE REDES AGROALIMENTARES

*St Lawrence Market (Toronto, Ontario, Canada, North America).  
Source: Picture by Valerià Pau (24/8/2012).*





*I. Bridging Gaps between Agri-Food Networks*

Dubois (2010) and Robinson (2004) have commented on how production, distribution, retailing and consumption are structured across the world, proposing the notion of agri-food networks. There is wide consensus that these networks are intricate connections on a global scale, dominated by oligopolies and trans-national companies. In fact, Nestlé's (2007) analysis shows the power of the food industry by being able to frame nutrition and health discussions in the United States, which is globally influential. According to Dubois (2010) and Robinson (2004), in the Global South vast areas and many farmers are disconnected from the global agri-food networks, sometimes by systems of subsistence interrelated with the persistence of human hunger. In any case, the domination of these networks by strong and coercive processes such as land grabbing is pervasive. These are particularly relevant in Africa and Latin America (Liberti, 2011); for example, violent dispossession, a case in point being Colombia (Reyes, 2016).

Since the early 2000s academics have identified the emergence of alternative agri-food networks, embracing a wide range of possibilities in production, distribution and consumption: farmers' markets, social farming, organic farming, direct sales, fair trade, protected designations of origin, etc. The commonalities of these networks are that they offer an alternative to the dominant industrial, conventional and bulk agri-food systems (Paül and Haslam McKenzie, 2013). The development of alternative agri-food networks is leading towards profound changes in community self-reliance and natural resource management, reinforcing peasant organisations and challenging the dominant food industry regionally (Altieri and Toledo, 2011). The idea of 'alternativeness' itself is controversial because in most countries what is considered "alternative" it is not new at all. Furthermore, big retailers offer 'alternativeness' in their stores by engaging with organic and fair trade food, amongst other possibilities. In addition, 'alternativeness' is often linked to short supply chains (as opposed to long supply chains dominant in the global arena) but in reality many of these alternative food networks are globalised. In this sense, Morgan (2010) has provoked a discussion on the schism existing between alternative food practices considered (i) "local and green", based on the promotion of agri-food sustainability by reducing carbon emissions related to production and transport; and (ii) "global and fair", promoting an ethical commitment to social justice with regard to poor farmers in the Global South.

This thematic session welcomes contributions around these questions:

- Is there a possible compatibility between "conventional" and "alternative" agri-food networks? Is the discussion itself on this duality unnecessary and irrelevant, somewhat "black and white"?
- Why do the agri-food networks existing between the Global South and North remain unequal and uneven? How can they be managed?
- What are the connections, relations and contradictions between the agri-food networks and human hunger?
- Is there room for non-globalised spaces of production, distribution and consumption? To what extent is there room for innovation in these systems?
- Are alternative food networks really alternative? Who creates these networks and why? How can we assess their sustainability and performance? How can

“contradictions” within alternative food networks (e.g. non-organic protected designations of origin, farmers’ markets selling overseas products) be conceptualised and managed?

- How can we bridge the gap between the two big alternative agri-food networks conceptualised by Morgan (2010)?
- Which policies can be implemented to promote sustainable agri-food networks?

### *I. Comblent les écarts entre les réseaux agroalimentaires*

Dubois (2010) et Robinson (2004) ont étudié la façon dont la production, la distribution, la vente au détail et la consommation sont structurées à travers le monde, proposant la notion de réseaux agroalimentaires. Il existe un large consensus sur le fait que ces réseaux constituent des connexions complexes à l’échelle mondiale, dominés par des oligopoles et des sociétés transnationales. En fait, les travaux de Nestlé (2007) montrent la puissance d’une industrie alimentaire capable d’influencer fortement les discussions nord-américaines (USA) sur la nutrition et la santé, et par là, les débats mondiaux portant sur ce même domaine. Selon Dubois (2010) et Robinson (2004), dans les pays dit du Sud global, de vastes espaces et de nombreux agriculteurs sont déconnectés des réseaux agroalimentaires mondiaux, parfois suite à des systèmes de subsistance liés à la persistance de la famine. Quoi qu’il en soit, la domination de ces réseaux via des processus puissants et coercitifs, tel que l’accaparement des terres, est omniprésente. Ceux-ci sont particulièrement effectifs en Afrique et en Amérique latine (Liberti, 2011) ; par exemple, à travers la spoliation forcée du foncier, notamment en Colombie (Reyes, 2016).

Depuis le début des années 2000, les universitaires ont mis en évidence l’émergence de réseaux agroalimentaires alternatifs, embrassant un large éventail de possibilités de production, de distribution et de consommation : marchés paysans, agriculture sociale, agriculture biologique, vente directe, commerce équitable, appellations d’origine protégée, etc. Les points communs de ces réseaux sont qu’ils offrent une alternative aux systèmes agroalimentaires industriels dominants, conventionnels et orientés vers une production de masse (Paül et Haslam McKenzie, 2013). Le développement de réseaux agroalimentaires alternatifs provoque des changements importants sur des domaines tels que l’autonomie des communautés locales et la gestion des ressources naturelles, induisant un renforcement des organisations paysannes et une remise en question de l’industrie agroalimentaire dominante à l’échelon régional (Altieri et Toledo, 2011). L’idée même « d’alternativité » est controversée, parce que dans beaucoup des pays ce qui est considéré comme « alternatif » ne l’est vraiment pas. De plus, la grande distribution affiche une « alternativité » dans ses magasins en proposant des rayons dédiés, entre autres, à l’alimentation biologique et équitable. En outre, « l’alternativité » est souvent liée à des chaînes d’approvisionnement courtes (par opposition aux chaînes d’approvisionnement longues, dominantes sur la scène mondiale) ; mais en réalité, nombre de ces réseaux alimentaires alternatifs s’avère mondialisé. En ce sens, Morgan (2010) a suscité un débat sur le schisme existant entre les pratiques alimentaires alternatives considérées (i) comme « locales et vertes », basées sur la promotion de la durabilité agroalimentaire grâce à la réduction des émissions de carbone liées à la production et au transport, et celles (ii) qualifiées de « mondiales et justes »,

promouvant un engagement éthique avec un souci de justice sociale pour les agriculteurs pauvres du Sud global.

Cette session thématique est ouverte aux contributions portant sur ces questions suivantes :

- Existe-t-il une compatibilité possible entre les réseaux agroalimentaires « conventionnels » et « alternatifs » ? La discussion elle-même sur cette dualité est-elle inutile et non pertinente, par son caractère réductif (« tout blanc » ou « tout noir ») ?
- Pourquoi les réseaux agroalimentaires existant entre le Sud et le Nord global demeurent-ils inégaux et déséquilibrés ? Comment peut-on les gérer ?
- Quels sont les liens, relations et contradictions entre les réseaux agroalimentaires et la famine ?
- Y-a-t-il de la place pour des espaces non mondialisés de production, de distribution et de consommation ? Dans quelle mesure est-il possible d'innover dans ces mêmes domaines ?
- Les réseaux alimentaires alternatifs sont-ils vraiment alternatifs ? Qui crée ces réseaux et pourquoi ? Comment peut-on évaluer leur durabilité et leur performance ? Comment conceptualiser et gérer les « contradictions » au sein des réseaux alimentaires alternatifs (tels, par exemple, les appellations d'origine protégées dont les processus ne sont pas « biologiques », les marchés de proximité vendant des produits importés de l'étranger, etc.) ?
- Comment combler le fossé entre les deux grands réseaux agroalimentaires alternatifs conceptualisés par Morgan (2010) ?
- Quelles sont les politiques pouvant être mises en œuvre pour promouvoir des réseaux agroalimentaires durables ?

### *I. Tender puentes entre redes agroalimentarias*

Dubois (2010) y Robinson (2004) han observado cómo la producción, distribución, venta y consumo están estructurados alrededor del mundo, de modo que proponen la noción de redes agroalimentarias. Existe un amplio consenso al afirmar que estas redes conforman conexiones intrincadas a escala global, dominadas por oligopolios y compañías transnacionales. De hecho, el análisis de Nestle (2007) muestra el poder de la industria alimentaria al ser capaz de marcar el debate sobre nutrición y salud en los Estados Unidos, que tiene una influencia global. Según Dubois (2010) y Robinson (2014), en el sur global espacios extensos y muchos agricultores están desconectados de las redes agroalimentarias globales, a veces asentados en sistemas de subsistencia interrelacionados con la persistencia del hambre. En cualquier caso, el control de estas redes a través de procesos duros y coercitivos, tales como el acaparamiento de tierras, es generalizado. Estos son especialmente relevantes en África y Latinoamérica (Liberti, 2011); por ejemplo, a través de la desposesión violenta, como en el caso concreto de Colombia (Reyes, 2016).

Desde principios de la primera década del siglo XXI, se ha identificado la aparición de redes agroalimentarias alternativas, que recogen una amplia gama de posibilidades en cuanto a producción, distribución y consumo: mercados agrícolas, agricultura social, agricultura ecológica, venta directa, comercio justo, denominaciones de origen protegidas, etc. Estas redes comparten el hecho de ofrecer una alternativa a los sistemas

agroalimentarios dominantes industriales, convencionales y orientados a la producción en masa (Paül y HaslamMcKenzie, 2013). El desarrollo de redes agroalimentarias alternativas está conduciendo hacia cambios profundos en la autonomía de las comunidades y en la gestión de los recursos naturales, lo que refuerza las organizaciones campesinas y desafía a la industria alimentaria dominante a escala regional (Altieri y Toledo, 2011). La propia idea de «alternativa» es controvertida, ya que en muchos países lo que se considera «alternativo» no es para nada nuevo. Además, los grandes supermercados ofrecen «alternativas» en sus tiendas, a través de la oferta de alimentación ecológica y de comercio justo, entre otras posibilidades. Asimismo, la «alternativa» está habitualmente relacionada con los circuitos cortos (en oposición a los circuitos largos que dominan el escenario global), pero en realidad muchas de esas redes alimentarias alternativas están globalizadas. En este sentido, Morgan (2010) ha incitado un debate acerca del cisma existente entre prácticas alimentarias alternativas consideradas (i) «locales y verdes», basadas en la promoción de la sustentabilidad agroalimentaria mediante la reducción de las emisiones de carbono relacionadas con la producción y el transporte, y (ii) «globales y justas», que promueven un compromiso ético con la justicia social en referencia a los agricultores pobres del sur global.

Esta sesión temática acoge con especial interés contribuciones sobre las siguientes cuestiones:

- ¿Existe una posible compatibilidad entre redes agroalimentarias «convencionales» y «alternativas»? ¿Es el propio debate sobre esta dualidad innecesario e irrelevante, de alguna manera «blanco y negro»?
- ¿Por qué las redes agroalimentarias existentes entre sur y norte globales siguen siendo desiguales y desequilibradas? ¿Cómo se pueden gestionar?
- ¿Cuáles son las conexiones, relaciones y contradicciones entre las redes agroalimentarias y el hambre?
- ¿Hay cabida para espacios de producción, distribución y consumo no globalizados? ¿Hasta qué punto hay espacio para la innovación en estos sistemas?
- ¿Son las redes alimentarias alternativas realmente alternativas? ¿Quién crea estas redes y por qué? ¿Cómo podemos evaluar su sustentabilidad y rendimiento? ¿Cómo pueden las «contradicciones» dentro de las redes alimentarias alternativas (por ejemplo, denominaciones de origen protegidas sin producción ecológica, mercados de proximidad que venden productos del extranjero) ser conceptualizadas y gestionadas?
- ¿Cómo podemos tender puentes entre las dos grandes redes agroalimentarias alternativas conceptualizadas por Morgan (2010)?
- ¿Qué políticas pueden implantarse para promover redes agroalimentarias sostenibles?

### *I. Colmatar lacunas entre redes agroalimentares*

Dubois (2010) e Robinson (2004) observaram como a produção, distribuição, comércio e consumo estão estruturados à volta do Mundo, propondo a noção de redes agroalimentares. Há um amplo consenso na afirmação de que estas redes são conexões intrincadas numa escala global, dominadas por oligopólios e empresas transnacionais. De



facto, a análise de Nestle (2007) mostra o poder da indústria de alimentos ao ser capaz de marcar o debate sobre nutrição e saúde nos Estados Unidos, que é globalmente influente. De acordo com Dubois (2010) e Robinson (2004), no Sul Global áreas extensas e muitos agricultores estão desconectados das redes agroalimentares globais, e por vezes dependem de sistemas de subsistência inter-relacionados com a persistência da fome humana. De todas as formas, o controlo dessas redes por processos fortes e coercitivos como a apropriação de terras é generalizada. Estas são particularmente relevantes na África e na América Latina (Liberti, 2011); por exemplo, através da expropriação violenta, como é o caso concreto da Colômbia (Reyes, 2016).

Desde o início dos anos 2000, identificou-se o surgimento de redes agroalimentares alternativas, que abrangem uma ampla gama de possibilidades relativamente à produção, distribuição e consumo: mercados de agricultores, agricultura social, agricultura biológica, venda direta, comércio justo, denominações de origem protegida, etc. Estas redes partilham o facto de oferecerem uma alternativa aos sistemas agroalimentares industriais, convencionais e orientados para a produção em massa (Paül e Haslam McKenzie, 2013). O desenvolvimento de redes agroalimentares alternativas está a conduzir a mudanças profundas na autonomia das comunidades e na gestão de recursos naturais, reforçando as organizações de composeses e desafiando a indústria alimentar dominante a nível regional (Altieri e Toledo, 2011). A própria ideia de «alternativa» é em si controversa, já que em muitos países o que é considerado «alternativo» não é de todo novo. Além disso, os grandes supermercados oferecem produtos «alternativos» nas suas lojas através da oferta de produtos biológicos e de comércio justo, entre outras possibilidades. Na verdade, o «alternativo» está muitas vezes ligado a circuitos curtos (em oposição aos grandes circuitos que dominam a esfera global), mas na realidade muitas dessas redes de alimentos alternativos estão globalizadas. Neste sentido, Morgan (2010) iniciou um debate sobre as divisões existentes entre as práticas alimentares alternativas consideradas (i) «locais e verdes», com base na promoção da sustentabilidade agroalimentar pela redução das emissões de carbono relacionadas com a produção e o transporte; e (ii) «global e justas», que promovem um compromisso ético com a justiça social em relação aos agricultores pobres no Sul Global.

Esta sessão temática acolhe com especial interesse as contribuições sobre as seguintes questões:

- Existe uma possível compatibilidade entre redes agroalimentares «convencionais» e «alternativas»? É o próprio debate sobre esta dualidade desnecessário e irrelevante, e de alguma forma «branco e preto»?
- Por que é que as redes agroalimentares existentes entre o Sul e o Norte Global se mantêm desiguais e desequilibradas? Como podem ser geridas?
- Quais são as conexões, relações e contradições entre as redes agroalimentares e a fome humana?
- Há lugar para os espaços de produção, distribuição e consumo no Mundo globalizado? Até que ponto há espaço para a inovação nestes sistemas?
- São as redes alimentares alternativas realmente alternativas? Quem cria estas redes e por que razão? Como podemos avaliar a sua sustentabilidade e rendimento? Como podem as «contradições» dentro das redes alimentares alternativas (por exemplo, denominações de origem protegidas sem produção biológica, mercados

de proximidade que vendem produtos do estrangeiro) ser concetualizadas e geridas?

- Como podemos colmatar lacunas entre as duas grandes redes agroalimentares alternativas concetualizadas por Morgan (2010)?
- Que políticas se podem implementar para promover redes agroalimentares sustentáveis?

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## **1. Diversité agricole et trajectoires de bassins légumiers et maraîchers internationalisés en Normandie (France)**

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### *1. Introduction*

IGP du Poireau de Créances, carottes des sables Label Rouge, un marché au cadran, un complexe agroalimentaire mondialisé, une marque régionale, 146 exploitations biologiques en maraîchage diversifié en 2017, etc. : l'agriculture de l'ouest normand est aussi légumière et maraîchère. L'ex Basse-Normandie domine la production nationale de poireaux et de navets grâce au département de la Manche, ancien leader de la production de carottes. En 2014, une crise de surproduction liée à la fermeture de débouchés commerciaux et à la baisse des cours conduit les producteurs à déverser des légumes devant le siège de la Mutualité Sociale Agricole de Saint-Lô, la ville préfectorale, dénonçant « des charges insupportables » et des distorsions de concurrence. Ils sont intégrés à une filière internationalisée (Brunet et Rouspard, 2000 ; Margetic, 2014) en développement (Guillemin, 2018a) comme en attestent la branche légumes d'Agrial (un quart des 3,9 milliards d'euros de chiffre d'affaires de la coopérative en 2015) ou la contribution du bassin historique de Luc-sur-Mer et de la Plaine de Caen (Muller, 1977) au chiffre d'affaires de la Coop de Creully (à hauteur de 5 millions d'euros en 2016). Enfin, la marque Jardins de Normandie, promeut la diversité des bassins de la région (179 200 tonnes de légumes en 2015).

Quelles sont les réalités de la diversité des modes de production de légumes bas-normands ? Ils recourent des profils productifs nord-européens (Dumont, 2017) et nationaux (Bressoud et al., 2009), par un large éventail de possibilités de production et de distribution. Ils participent aux trajectoires de bassins différenciées. En quoi ces trajectoires relèvent de cas emblématiques de bassins historiquement internationalisés (Margetic, 2014) mais aussi d'une alternatifivité souvent liée à des chaînes d'approvisionnement courtes mais en réalité souvent mondialisée ?

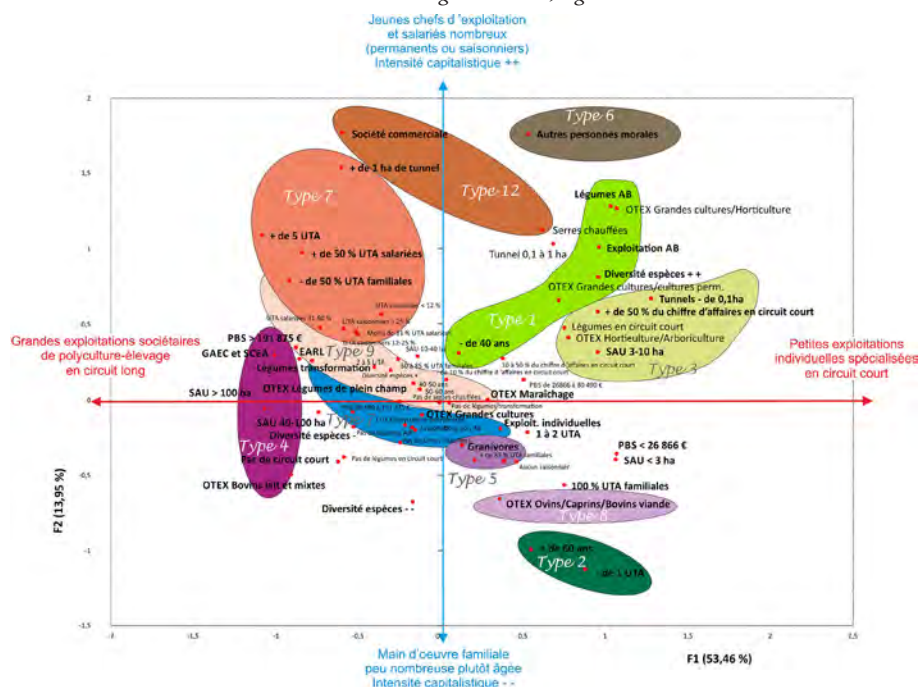
### *2. Méthodologie*

Une typologie technico-économique de 695 exploitations agricoles bas-normandes a été réalisée à partir du recensement agricole 2010 non-sécritisé. Toutes les exploitations cultivant au moins un légume ont été retenues. Une classification Ascendante

Hiérarchique des exploitations a été conduite sur les coordonnées factorielles d'une Analyse des Correspondances Multiples (Figure 1), traitant à cette « échelle régionale [...] de la diversité structurelle des exploitations » (Mignolet, 2005 : 117) : surfaces utilisées, statut juridique, productions, âge du chef, mains d'œuvre, résultat économique, labels, ... A-spatiaux, ces types d'exploitations seront cartographiés pour « produire des régionalisations agricoles » (Mignolet, 2005 : 118).

Figure 1. Plan factoriel de l'Analyse des Correspondances Multiples (F1&F2 = 67,40%).

Source : Recensement Agricole 2010, Agreste/CASD.



Le Recensement agricole révèle la diversité des formes de production en légumes, qu'ignore trop la presse régionale, donnant à lire surtout les figures du maraîchage alternatif. Pour autant, la revue de presse et sa cartographie permettent un suivi des installations maraîchères post-2010, notamment en bio (Bressoud et al., 2009 : 77). Et les 220 articles de *Ouest-France* renseignent les formes d'internationalisation du maraîchage alternatif.

### 3. De la diversité des exploitations agricoles...

#### 3.1. Le maraîchage : de la petite surface à l'intensité capitalistique

Les exploitations de type 1, très petites ou petites, sont conduites par de jeunes exploitants, pionniers des alternatifs du maraîchage. Assises sur le travail familial non salarié, quatre sur dix mobilisent entre deux et cinq Unités de Travail Annuel (UTA). En circuits-courts et labellisées en agriculture biologique (AB). La diversité d'espèces y est

très forte, pour une production brute standard faible ou moyenne (43% entre 26 866 € et 80 490 €).

Les exploitations du type 3, horticoles, arboricoles ou maraîchères, mobilisent une main d'œuvre familiale non salariée (jusqu'à cinq UTA) sur moins de trois hectares, ou trois à dix hectares, rarement couverts. Les légumes conventionnels vendus en circuits-courts génèrent plus de 50% du chiffre d'affaires. La diversité culturelle est plutôt forte pour une PBS faible ou moyenne (45% entre 26 866 et 80 490€). Ce sont les « historiques » de l'approvisionnement de proximité.

Les exploitations du type 6 (1% de la cohorte) sous statut « autre personne morale » sont des jardins d'insertion ou des Établissements de Travail Protégé. Une main d'œuvre nombreuse cultive beaucoup de légumes sur petite surface et une exploitation sur deux réalise plus de 50% du chiffre d'affaires en circuits courts, exceptionnellement avec des serres chauffées. Grâce à leur mise en réseau la labellisation AB des légumes dépasse aujourd'hui le niveau de 2010.

Les polyculteurs du type 11 exploitent de petites surfaces, souvent à partir d'un travail familial non salarié et un recours ponctuel aux saisonniers. Les chefs d'exploitations plutôt jeunes vendent leurs légumes en circuits courts et les trois quarts en tirent plus de 50% de chiffre d'affaires. L'exploitation est labellisée AB dans 31% des cas, les légumes que dans 19%. La moitié a des tunnels et certains ont des serres chauffées. La diversité culturelle y est forte à très forte pour des PBS faibles (inférieures à 26 866 euros).

Avec les petites ou moyennes structures d'élevage en AB et circuits-courts des types 5 et 8 (voir infra), ces premiers types d'exploitations souvent individuelles et cultivant un nombre d'espèces important s'approchent des « systèmes maraîchers sur petites surfaces » (MPS), où « en agroécologie on retrouve le plus souvent la présence de petit bétail » (Dumont, 2017 : 104). En bio, c'est le sous-type des maraîchers diversifiés périurbains, avec une main d'œuvre d'abord familiale (Bressoud et al., 2009 : 77, 81).

Les GAEC ou exploitations individuelles du type 10 sont maraîchères ou combinent grandes cultures et horticulture, sur des surfaces moyennes à grandes et mobilisent deux à cinq UTA ou plus de cinq UTA. Le salariat saisonnier est fréquent. La moitié vend des légumes en circuits-courts qui représentent plus de 50% de leur chiffre d'affaires. Labellisées AB dans 15% des cas, toutes les exploitations de ce type couvrent de tunnels plus d'un hectare de terres et les légumes pour la transformation et les serres chauffées sont minoritaires. Un seul légume ou plus de dix légumes, la PBS est très forte (plus de 191 875€ dans 70% des cas).

Les exploitations maraîchères ou horticoles/arboricoles du type 12 sont des sociétés commerciales (1% de la cohorte). De grandes tailles, elles mobilisent entre 2 et 5 UTA voire plus, souvent en salariat permanent. Majoritairement en circuits courts (un quart en tire plus de 50% de chiffre d'affaires), peu de labellisation AB, elles se distinguent par l'importance des serres chauffées (38%), et la culture de légumes pour la transformation (13% des cas). La diversité culturelle en légumes y est forte ou très forte pour une PBS élevée (plus de 191 875 € dans 75% des cas).

Ces deux derniers types sont des systèmes maraîchers sur moyennes ou grandes surfaces (MMS/MGS) « au capital le plus conséquent » (Dumont, 2017 : 102). Leurs dimensions les rapprochent des systèmes légumiers, sauf pour le maraîchage des petites

retraites, avec les exploitations du type 2, très petites, spécialisées en légumes frais de plein champ avec moins d'un actif à temps plein, âgé, qui ne vend pas en circuits-courts pour un faible résultat économique.

### 3.2. De la polyculture-élevage aux productions végétales : les productions légumières en grandes cultures

Souvent sociétaires, les exploitations du type 4 sont orientées en bovins lait et mixte ou polyélevage (17%) souvent sur plus de 100 ha. Elles mobilisent deux à cinq UTA familiales et non salariées, avec un recours aux saisonniers. Les chefs d'exploitation plutôt jeunes, vendent peu en circuits courts et quelques-uns destinent des légumes à la transformation. La diversité culturelle très faible est déconnectée des PBS élevées générées par le lait.

Depuis 2010 et les crises du lait, certaines de ces exploitations ont nourri le type 8 par l'abandon du troupeau laitier au profit de vaches allaitantes, en conservant la culture d'un ou deux légumes, comme le navet, dans l'assolement fourrager. Les polyculteurs diversifiés du type 8 élèvent des herbivores pour la viande (4% de la cohorte). Hors petits systèmes agroécologiques (voir supra), les élevages allaitants extensifs mobilisent entre 1 et 2 UTA, avec peu de salariés permanents et moins rarement des saisonniers. La diversité culturelle en légumes y est faible et la PBS faible ou moyenne.

Les exploitants du type 5 (1% de la cohorte) élèvent des porcs ou des volailles, soit comme pour le type 8, en combinant petit élevage et maraîchage en agroécologie (voir supra), soit en combinant ateliers intensifs et productions de plein champ sur des surfaces importantes avec peu d'actifs, peu d'espèces de légumes et une forte PBS liée à l'élevage.

Ces trois types qui associent l'élevage en atelier complémentaire diffèrent des modes de production wallons de légumes en plein champ, exclusivement en production végétale. Mais les types 7 et 9, de grandes exploitations avec la présence de céréales, correspondent bien aux productions de légumes en grandes cultures (PGC), produisant un nombre limité de légumes « pour le marché du frais et de la transformation » (Dumont, 2017 : 101), proches parfois des MGS.

Les exploitations individuelles du type 7 en grandes cultures ou en cultures de légumes frais de plein champ sur de moyennes à grandes surfaces, peuvent mobiliser jusqu'à cinq UTA, plus souvent des saisonniers que des permanents. Peu de circuits-courts et de labellisation AB, malgré une faible diversité culturelle, ces exploitations se distinguent par la culture de légumes destinée à la transformation pour une PBS moyenne à forte (entre 80 490 et 191 875€ pour 41% d'entre elles).

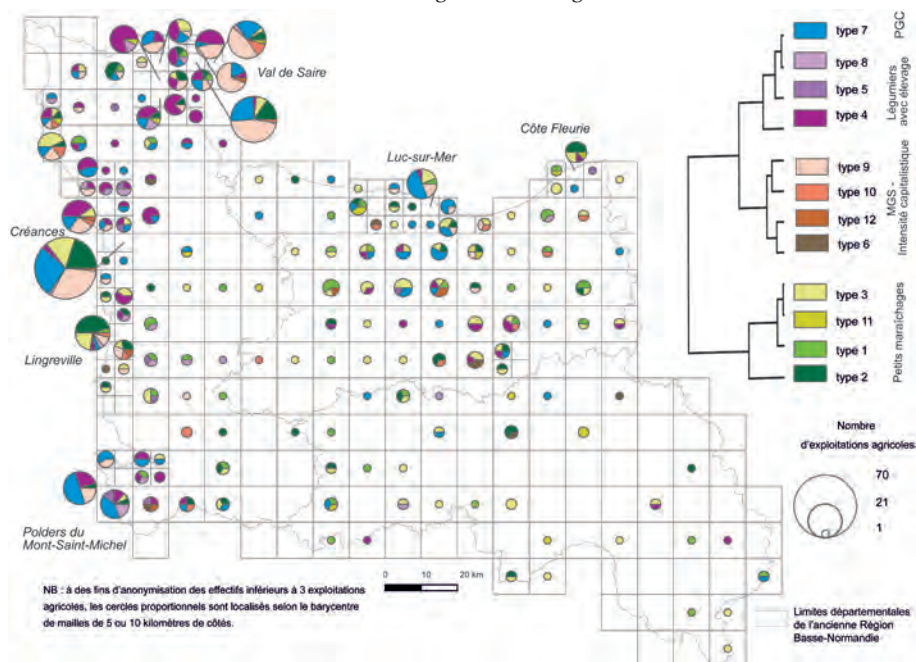
Avec 60% de légumiers et 28% de maraîchers, les exploitations du type 9 majoritairement individuelles sont moyennes à grandes. Les chefs d'exploitations emploient des salariés permanents et recourent dans 78% des cas au salariat saisonnier, sur des exploitations qui peuvent mobiliser au total jusqu'à cinq UTA. Peu de circuits-courts, quasiment pas de labellisation AB, la diversité culturelle y est faible ou moyenne et 8% des exploitations travaillent pour la transformation, avec des PBS fortes (36%) à très fortes.

Ces différents types d'exploitations se répartissent à l'échelle régionale selon une logique de bassins de production. Les mailles de 5 km de côté dessinent des bassins littoraux emblématiques (Margetic, 2014) : baie du Mont-Saint-Michel, Lingreville, Créances, Val

de Saire, Luc-sur-Mer et celui oublié de la Côte Fleurie (Muller, 1977). Une logique spatiale est commune à ces bassins avec une localisation littorale des exploitations maraîchères et une implantation rétro-littorale des productions légumières dans les arrières pays d'élevage (Manche) ou céréaliers (Calvados). On retrouve ainsi la logique spatiale de différenciation des surfaces légumières du grand-ouest français (Margetic, 2014).

Figure 2. Typologie des exploitations agricoles produisant des légumes.

Source : Recensement Agricole 2010, Agreste/CASD.



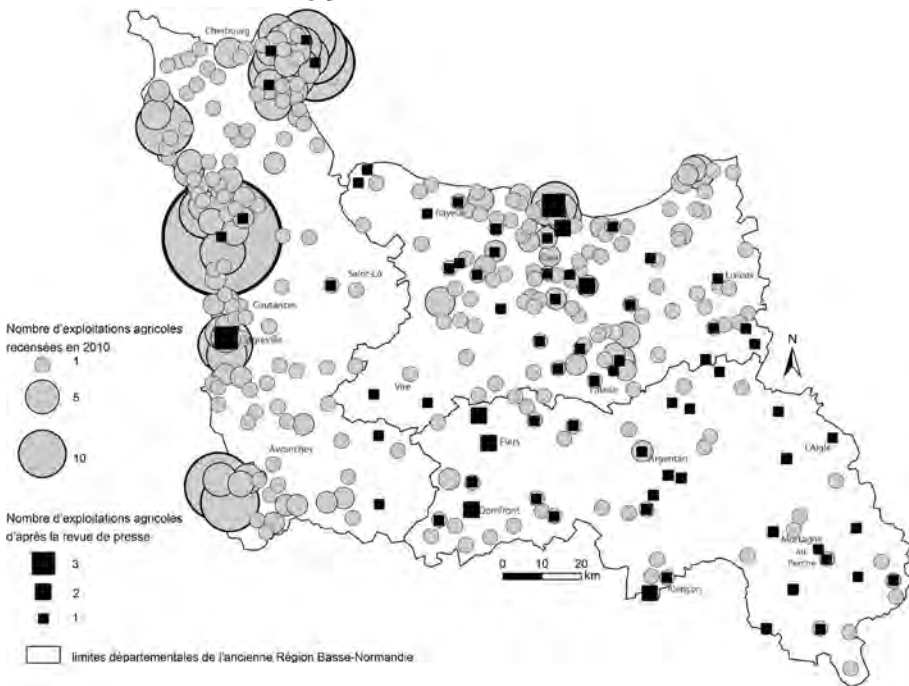
#### 4. ... à la diversité des bassins de production internationalisés

Les bassins légumiers historiques sont intégrés à un complexe industriel de transformation légumière internationalisé (Muller, 1977 ; Brunet et Rousard, 2000 ; Guillemin, 2018a) qui était en 2010 le troisième employeur agroalimentaire du département manchot. Si les marchés sont internationaux (Europe du Nord), les légumes sont aussi écoulés sur le marché national pour répondre aux nouvelles demandes des consommateurs : par exemple, la filiale d'Agrial, Florette, forte d'une première contractualisation avec les restaurants MacDonald's pour l'approvisionnement en salades de 4<sup>ème</sup> gamme, conforte ce partenariat. A l'occasion du test d'un nouveau burger végétarien, les producteurs de chou du Val de Saire, via la filiale d'Agrial, approvisionnent la chaîne de fast-food pour ces nouvelles garnitures. Ces productions intensives et intégrées s'imbriquent parfois avec les couronnes maraîchères comme à Cherbourg ou à Caen. Ainsi coexistent modèles légumiers conventionnels souvent en circuits-longs et des modèles maraîchers en circuits-courts et parfois alternatifs. Loin d'être toujours concurrentes ou antagonistes,

elles peuvent être complémentaires quand les premières, légumières et industrielles, fournissent par exemple les secondes maraîchères en plant d'endives (Guillemain et Marie, 2017).

Le petit maraîchage de proximité, de plus en plus biologique, s'est organisé historiquement près des bourgs, petites et moyennes villes qu'il approvisionne en légumes frais (Muller, 1977). Avec une pression foncière forte, à Caen l'ancienne ceinture maraîchère fait place à une couronne maraîchère atomisée et éloignée (Graby et Guillemain, 2016 ; Guillemain et Marie, 2017). Ce market gardening connaît un pic d'installations depuis les années 2000. Après 2010, la revue de presse en révèle la dynamique, avec 82 exploitations (carrés noirs de la Figure 3).

Figure 3. Médiatisation d'un maraîchage en circuits-courts et/ou biologique. Sources : Ouest-France 2013-2018.



La cartographie de la typologie révèle autour de Lingreville, une prédominance du maraîchage des petites retraites. La concurrence internationale, les spécialisations vers l'élevage, le déclin de la coopérative locale, causent la crise du bassin entre les années 1980 et la fin des années 2000, avec des départs en retraite. En 2010, Lingreville n'apparaît plus comme un bassin maraîcher littoral dans la typologie des usages du sol (Preux, 2018). Suite à cette crise, la trajectoire du bassin lingremois se distingue par sa reconversion productive sur les bases de l'agriculture biologique et des circuits-courts de proximité. Outre des installations (Guillemain, 2018b et Figure 3), cette nouvelle filière se structure en aval avec la transformation de légumes et autres produits bio locaux (petits pots pour



nourrissons, compotes, tartines en restauration non sédentaire). Une partie des débouchés commerciaux des producteurs et transformateurs bio du bassin lingremais s'effectue localement, à l'échelle départementale ou nationale. Mais ces circuits-courts, via des Groupements d'Intérêt Economique, approvisionnent aussi des collectifs de consommateurs franciliens (*id.*).

Cette demande parisienne a par ailleurs favorisé l'émergence d'un bassin maraîcher sur ces mêmes bases productives dans l'est du département de l'Orne, dans les Pays d'Auge et d'Ouche et le Perche. C'est dans le Parc Naturel Régional percheron qu'a été créé le premier espace test maraîcher ornaï, sur fonds LEADER. La Figure 3 montre l'émergence d'exploitations maraîchères (carrés noirs) à côté de celles déjà existantes en 2010 (cercles gris). Elles approvisionnent la capitale via les livraisons du Collectif Percheron. La transformation se développe avec l'exemple du Potaverger dont les soupes bientôt certifiées AB sont vendues au Salon de l'Agriculture ! Cette demande est « mobile », du moins, sa base sociale (l'est ornaï est prisé par les résidents secondaires franciliens) : elle permet alors des circuits-courts de proximité autour des exploitations. Plusieurs maraîchers appartiennent à ces néo-ruraux, sédentarisés par leur reconversion agricole, et deviennent partie prenante d'un nouveau bassin maraîcher.

##### 5. Discussion et conclusion

Le maraîchage alternatif normand s'est construit contre la mondialisation. Pourtant, il est le fait d'une main d'œuvre européenne ; bénéficie de financements européens ; mobilise des intrants internationaux. Ce réseau alternatif est donc intégré à la mondialisation (Tableau 1), parfois en contradiction avec l'éthique des maraîchers confrontée aux mobilisations de consommateurs militant contre l'import de fruits pour la revente sur les marchés ou aux tensions que peut susciter le recours au WWOOFing (Samak, 2016).

Tableau 1. L'insertion, parfois contradictoire\*, du maraîchage alternatif dans la mondialisation. Sources : revue de presse et enquêtes de terrain.

	Union Européenne	Reste du monde
Intrants agricoles (capitaux, machinisme agricole, semences, fruits en achat-revente...)	– Financements LEADER pour du foncier	– Fruits bio exotiques* (Iran/Israël/Tunisie) – Irrigation goutte à goutte* (Israël) – Semences bio anciennes (États-Unis)
Exploitants agricoles	– Maraîchers immigrés (Belgique, Pays de Galle)	
Main d'œuvre salariée	– WWOOFeurs*	– Migrant pakistanais apprenti ouvrier agricole
Formation (agricole et non agricole)	– WWOOFing (Grèce, Italie) – Diplômes universitaires (Belgique)	– École et travail au champ au Penjab (Pakistan)
Traçabilité des produits (du label au mouvement social)	– Agriculture biologique	– Campagne Boycott* Désinvestissement Sanctions

L'analyse multivariée du recensement agricole a permis d'actualiser la connaissance des différents modes de production de légumes de l'ouest de la Normandie, confrontée à la littérature récente pour le cas Belge (Dumont, 2017) et à la « cohérence entre modes de commercialisation et modes de production » de légumes AB en France (Bressoud et al., 2009). On connaissait l'internationalisation des bassins légumiers normands historiques, moins celle du maraîchage alternatif, pourtant bien intégré à la mondialisation, parfois même de manière contradictoire.

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## 2. Las redes agroalimentarias en la Montaña de Alicante, entre la tradición y las expectativas asociadas a la multifuncionalidad de los paisajes

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### *Agri-Food Networks in the Region “Mountain of Alicante”, between Tradition and Expectations Associated with the Multifunctionality of Landscapes*

The enhancement of the local and the redrawing of rural-urban relationships are included in agrarian post-productivism. Under this paradigm, agri-food strategies and agro-ecological dynamisation are considered as tools for rural development by incorporating issues such as quality production, recovery and the improvement of local production, etc. Moving on, maintaining agricultural activities is also the way to conserve landscapes and agricultural heritage. The objectives of this paper are: a) to analyse the implementation processes of agri-food strategies; b) to highlight the factors that, on the one hand, favour and, on the other, hinder its adoption; c) to examine the relationships established between rural development policies and agri-food strategies; and d) to evaluate the degree of innovation of these networks. The region under analysis is named “Mountain of Alicante”, which is located in the mountainous inland area of the province of Alicante (Spain). Methodologically different data sources have been used (bibliometric analysis, databases and interviews with stakeholders). In conclusion, the incorporation of the new agri-ecological paradigms highlights a development in the last decade, both from the point of view of the initiatives and the interest of the population and social agents.

### *1. Introducción*

Los espacios de montaña han registrado notables transformaciones paisajísticas asociadas, por un lado, a la construcción social de un paisaje (Nogué, 2007), que va a dar lugar a paisajes culturales caracterizados por una notable variedad y diversidad paisajística y agraria y, por otro, relacionadas con los procesos de desarticulación de estas sociedades, e indirectamente, de los paisajes. A partir de 1950, se asiste en buena parte del territorio de los espacios de montaña europeos a una espectacular transformación demográfica y a un cambio en su articulación espacial. Las elevadas pendientes, la pobreza de los suelos, la baja productividad, etc. fueron, algunos de los factores que obstaculizaron la introducción de una agricultura con nuevas orientaciones productivas. Son en este sector criterios de rentabilidad económica los que marcan las pautas del desarrollo y ante los que la agricultura tradicional, basada en la fuerza del trabajo humano, se ve forzada a claudicar (Hernández Hernández, 2010).

Los cambios en las dinámicas socio-económicas y su incidencia en los usos del suelo van a determinar, en tercer lugar, la adopción de políticas orientadas a paliar los desequilibrios territoriales mediante el fomento de actividades que contribuyan al desarrollo social, económico y ambiental. Estas políticas van a reflejar, igualmente, las transformaciones funcionales que han registrado los espacios rurales: de iniciativas con una marcada orientación productivista y donde se consideraba a las actividades agrarias y ganaderas como prioritarias, incluso únicas capaces de generar rentas, a otras, donde se premia la multifuncionalidad de estos medios. Se pasa, por tanto, de contemplar la problemática del medio rural desde una óptica estrictamente «agraria», a otra de tipo «territorial integral».

Por último, y relacionado con las anteriores, cabe indicar el reencuentro de la sociedad civil con el lugar (Nogué, 2016). A la gestión del espacio público a través de nuevas formas de gobernanza (Brunori, Marangon y Reho, 2011) se une un segundo proceso como es el aumento de la demanda social del paisaje como elemento de calidad de vida y su progresiva incorporación a los objetivos de las políticas de medio ambiente y patrimonio y, más recientemente, a las de ordenación del territorio, agricultura y turismo. El redescubrimiento del paisaje y de los espacios rurales por las sociedades postproductivistas se asocia, asimismo, a un proceso de ambientalización de la agricultura europea enmarcado en la crisis del paradigma productivista que caracterizó a la Política Agrícola Común (PAC) hasta los años ochenta y la configuración de un nuevo modelo basado en la pluralidad de los medios rurales y la multifuncionalidad de la actividad agraria dentro de los espacios rurales (Mata, 2004; Rubino, 2010): a la función tradicional de producir materias primas se une la de producir servicios vinculados con el ocio (Hernández Hernández, 2009) y la prestación de servicios ambientales a la sociedad (externalidades positivas).

Una estructura físico-ecológica que dificultó, cuando no impidió, la difusión e incorporación a redes agroalimentarias intensivas, lo que, unido a la difusión de los nuevos paradigmas del postproductivismo agrario y a las nuevas estrategias agroalimentarias, pueden actuar como elementos que favorezcan el desarrollo y mantenimiento de actividades agrarias caracterizadas por la calidad frente a la cantidad en áreas de montaña. Teniendo en cuenta esta hipótesis, los objetivos de esta comunicación son:

- analizar los procesos de implantación de estrategias agroalimentarias vinculadas a la soberanía alimentaria (agricultura de proximidad, mercados locales, producción ecológica y variedades locales);
- poner de manifiesto los factores que, por un lado, favorecen y, por otro dificultan su adopción;
- examinar las relaciones que se establecen entre políticas de desarrollo rural y la implantación de estrategias agroalimentarias;
- analizar las relaciones que se establecen entre productores y consumidores; y
- evaluar el grado de innovación de estas redes.

Estos objetivos se desarrollarán en un estudio de caso, el área conocida como «La Montaña de Alicante». Este ámbito geográfico se sitúa en el nordeste de la provincia de Alicante, englobando a los municipios de las comarcas de L'Alcoià y El Comtat en su práctica totalidad, una pequeña parte de L'Alacantí y el interior de La Marina. El calificativo de «montaña» refleja las características fisiográficas predominantes en esta área

supracomarcal, con un paisaje agrario característico, el de los aterrazamientos de ladera, como forma de adaptarse al clima mediterráneo y a la irregularidad de sus precipitaciones.

Figura 1. La «Montaña de Alicante», área de estudio. Fuentes: Institut Cartogràfic Valencià e Instituto Geográfico Nacional.



Su elección (Figura 1) no es baladí. Su localización en el interior montañoso de la provincia de Alicante condicionó las prácticas agrícolas. El intrincado relieve dificultó su modernización e intensificación desde mediados del siglo XX. Este factor, unido al desarrollo de los servicios en el sector litoral de la provincia y de la industria en municipios de esta comarca (Cocentaina, Alcoi y Muro), determinó un intenso éxodo rural desde los años 50 que se ha mantenido hasta finales del siglo XX, cuando algunos municipios registraron un mantenimiento e incluso leve recuperación demográfica. La marcada atonía socio-económica explica la implementación de políticas de desarrollo rural de manera continuada desde la iniciativa LEADER I, que facilitó:

- el inicio de actividades de turismo rural basado en la puesta en valor de elementos patrimoniales, culturales y paisajísticos;
- la mejora y modernización del sector agrario, mayoritariamente de olivar y, en menor medida, de frutales; y
- el impulso, a partir de la iniciativa LEADER+, de actuaciones orientadas a favorecer la multifuncionalidad de los paisajes y la prestación de servicios ambientales a la sociedad.

El predominio de una agricultura a tiempo parcial, la fragmentación parcelaria y una agricultura con predominio de aprovechamientos tradicionales constituyen elementos favorables, a priori, al fomento de nuevas propuestas agroecológicas.

## 2. Consideraciones teóricas

En una sociedad cada vez más globalizada y donde los procesos de deslocalización han adquirido en las últimas décadas una notable impronta espacial, el denominado «*relato territorial*» ha ido adquiriendo mayor relevancia. Este concepto hace referencia, a la vinculación entre un elemento productivo y sus productores con una tierra, un paisaje y una cultura. Un segundo elemento asociado al relato territorial es el valor patrimonial de los denominados Territorios Agrarios Históricos (TAH). El mantenimiento funcional de estos paisajes resulta fundamental para conservar su valor patrimonial tanto de elementos tangibles como intangibles. Y este proceso se vincula con la puesta en valor de esos lugares y de los productos generados en ellos.

La puesta en valor del lugar y la recomposición de las relaciones ciudad-campo se van a llevar a cabo a través de actuaciones que se insertan, por un lado, en estrategias agroalimentarias y agroecológicas y, por otro, en la planificación y gestión del territorio mediante nuevas formas para su gobernanza y custodia. La finalidad última de ambas es mantener las actividades agrarias y, de este modo, conservar los paisajes y el patrimonio agrícola (Hernández Hernández, 2017).

En Europa, la soberanía alimentaria plantea un marco para la gobernanza de las políticas agrícolas y alimentarias que incorpora temas como la calidad y singularidad del producto local, sus formas de producción (ecológica) y de comercialización (mercados locales, agricultura de proximidad o de kilómetro 0) a partir de parámetros que ponderen su sostenibilidad (la estacionalidad del producto o la distancia entre el punto de recolección y el de compra) y conservación de la biodiversidad (Calle et al., 2011; López García et al., 2015; Rinella y Okoronko, 2015; Lohrberg et al., 2016).

Los huertos urbanos, los mercados de proximidad (Navreau, 2007) y los parques agrarios (Paül y Haslam McKenzie, 2010; Simón et al., 2015; Zazo y Yacamán, 2015; Mata y Yacamán, 2016) constituyen ejemplos paradigmáticos de aplicación de los planteamientos de soberanía alimentaria y dinamización agroecológica. Asimismo, su progresiva implantación y difusión desde mediados de los noventa relacionados con circuitos alternativos de consumo ponen de manifiesto cómo han evolucionado de iniciativas puntuales y, en muchos casos, asociadas a prácticas de autoconsumo a herramientas que contribuyen al desarrollo local.

## 3. Consideraciones metodológicas

Metodológicamente, se ha procedido a la consulta de diversas fuentes de información. En primer lugar, se llevó a cabo un análisis bibliográfico sobre los planteamientos epistemológicos teóricos en los que se fundamenta esta investigación. Una vez elaborado el marco teórico, se procedió a consultar diversas bases estadísticas para determinar la relevancia del desarrollo de los nuevos postulados agroecológicos y de los programas de desarrollo rural. Concretamente, los Censos Agrarios, *con particular atención* al último publicado, el Anuario Estadístico elaborado por el Ministerio de Agricultura y Pesca,

Alimentación y Medio Ambiente y los proyectos financiados en la última iniciativa de desarrollo rural (Ruralter Leader, 2007-2013) y específicamente a las iniciativas orientadas a la multifuncionalidad. Por último, se ha realizado trabajo de campo y entrevistas a diversos actores locales. Concretamente:

- agricultores que han adoptado prácticas más sostenibles (agricultura ecológica) con la finalidad de conocer los factores que han determinado la elección de este tipo de prácticas;
- técnicos y gerentes de cooperativas donde se han introducido estas actuaciones para identificar los motivos que determinan esta elección, pero también las dificultades que ello conlleva;
- consumidores y representantes de colectivos que abogan por el consumo de productos de proximidad; y
- emprendedores de iniciativas orientadas al fomento de la multifuncionalidad del territorio (propietarios de alojamientos y restauración, entre otros).

#### 4. Resultados

El análisis, en fase preliminar, de la incorporación de los nuevos paradigmas *agroecológicos en el área de estudio* se va a articular en torno a dos grandes cuestiones, a saber: por un lado, el grado de innovación y aceptación de los principios agroecológicos; y, por el otro, la identificación y valoración de iniciativas agroecológicas.

En relación a la primera, se evidencia que hay una conciencia creciente por parte de la población hacia productos locales y de proximidad. Si bien el número de interesados es gradual y su grado de concienciación es mayor, este no es un proceso reciente. La existencia de consumidores y agrupaciones que intentaban relacionar productores y consumidores no es algo nuevo en el área de estudio, sino que se remonta a mediados de la primera década del siglo XXI con la creación de la denominada Xarxa Agroecològica en el municipio de Alcoi. Tampoco es novedosa la «recuperación de huertos». Dado el fragmentado parcelario es muy frecuente la existencia de pequeñas propiedades que son mantenidas por sus propietarios como agricultura de *hobby* o de fin de semana. Su práctica se ha incrementado, asociada al interés por consumir productos de calidad, de temporada y de producción propia. Igualmente, se evidencia un interés por las producciones más sostenibles (agricultura ecológica) y de calidad (incluyendo recuperación de variedades locales) por parte de agricultores y explotaciones, especialmente cuya dedicación a la agricultura representa un porcentaje elevado de sus ingresos totales. También desde el sector de la restauración empieza a apostarse por la incorporación de productos de temporada en las cartas de algunos restaurantes como un elemento diferenciador de la oferta gastronómica, dada la importancia que este sector tiene en la comarca. Una menor aceptación se observa desde el punto de vista del alojamiento. Si bien se ha apostado por la creación de oferta complementaria y se reconoce el valor de los paisajes, son testimoniales las actuaciones que interrelacionan actividades agrarias y turismo.

Respecto a la segunda de las cuestiones, las actuaciones identificadas se han analizado distinguiendo entre productores y consumidores. En el sector productivo, las iniciativas son variadas y van desde explotaciones familiares que elaboran aceite ecológico, pero que también molturan las producciones de particulares que quieren el aceite derivado de su

producción (Almazara de Millena) hasta la apuesta por producciones monovarietales de las cooperativas locales (Cooperativa Agrícola La Católica de Cocentaina). También el sector de los frutales ha desarrollado iniciativas orientadas a la recuperación y valorización de variedades locales (Mas de Roc y Frutas la Sarga). Un comentario específico reviste el proyecto microviñas desarrollado por el Celler la Muntanya (Muro d'Alcoi) por la conjunción de elementos. Su finalidad era recuperar viñedos evitando el abandono de los campos y la degradación del paisaje y preservando variedades autóctonas en ocasiones poco rentables en una comarca donde el viñedo registró una notable reducción superficial a raíz de la crisis de la filoxera. La iniciativa de custodia del territorio se fundamenta en el modelo de gestión colaborativa que se establece con los agricultores que aportan la vid y que son retribuidos de manera justa (Economía del bien común).

La existencia de consumidores cada vez más concienciados sobre la importancia de una alimentación de calidad y sostenible determina el aumento de la demanda y del interés por cubrir este nicho de mercado por parte de productores locales. El desconocimiento de los productores por parte de los consumidores ha sido uno de los principales inconvenientes para el desarrollo de estos sistemas productivos. La creación de una red (Xarxa Agroecologia en 2009) que pone en contacto a productores y consumidores, unido al uso cada vez mayor de las redes sociales, que apuestan por la venta de las denominadas «bolsas de compra verdes (*Cistella Verda*)», ha solventado en parte esta debilidad. La dinamización de los canales de consumo ha sido también posible por la recuperación de mercados locales que, generalmente con carácter mensual se realizan en algunos municipios como L'Orxa.

##### *5. Discusión y conclusión*

El desarrollo de iniciativas amparadas en los nuevos paradigmas agroecológicos es creciente y constante desde principios del siglo XXI. El número de iniciativas relacionadas con huertos periurbanos, parques agrarios, mercados de proximidad o restauración basada en producciones locales ponen de manifiesto su dinamismo. Paradigmático al respecto resultan iniciativas como el parque agrario del Baix Llobregat (Paül y Haslam McKenzie, 2010) o de Fuenlabrada (Mata y Yacamán, 2016).

En el área de estudio, el desarrollo de estas actuaciones muestra un carácter incipiente. Si bien en muchos casos se enmarca en nuevos paradigmas agroecológicos, se vincula, también, con prácticas tradicionales que se están recuperando para incrementar el valor añadido de las producciones agrícolas. Un análisis comparativo entre los resultados obtenidos en 2017 con los derivados del informe elaborado en el marco del Proyecto Ecolabora (Moltó y Hernández Hernández, 2011), cuyo objetivo era fomentar la cooperación agroecológica como mecanismo de generación de empleo y herramienta de motivación y dinamización de los canales de consumo, evidencia que algunas de las debilidades (canales de comercialización, prácticas minoritarias, etc.), siguen manteniéndose. Avanzar en el fomento de los canales de comercialización, en las interrelaciones entre gastronomía y producciones agrícolas y las relaciones tanto tangibles como intangibles de los paisajes aterrizados constituyen líneas de trabajo a desarrollar en el futuro.



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### **3. Crisis económica, recuperación y reestructuración de la industria del cerdo ibérico en la Sierra de Huelva (España)**

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#### *Economic Crisis, Recovery and Restructuration of the Iberian Pork Industry in the Mountain Range of Huelva (Spain)*

The Mountain Range of Huelva district (“Sierra de Huelva”, Spain) is an agricultural area showing depopulation and ageing trends. The area is notable for specialisation in an industry with a strong spatial base (depending on natural, social and cultural factors): the Iberian pork industry. Since the late 1990s, there have been important changes in this sector. Through official databases, its dynamics can be analysed between 2002 and 2017. Various processes are observed: concentration, modernisation, relocation, business transformation, closure and opening of activities, and business duality (large modern companies versus small traditional ones). Currently, the Protected Designation of Origin «Jabugo» appears as a dynamic tool for the activity.

#### *1. Introducción*

La industria cárnica del porcino ibérico es exclusiva de la Península ibérica, por lo que presenta una fuerte base territorial: la dehesa y el cerdo ibérico y características naturales específicas (clima, relieve, hidrografía), a las que se suma el *know-how* de la población. Por ello, esta industria se localiza en los emplazamientos que cumplen estas condiciones, que coinciden fundamentalmente con las sierras de las provincias de Salamanca (comarcas de Alba de Tormes y La Sierra), Cáceres (comarcas de Cáceres, Jaraíz de la Vera, Navalmoral de la Mata y Valencia de Alcántara), Badajoz (comarcas de Jerez de los Caballeros, Llerena y Azuaga), Huelva (comarca de la Sierra), Córdoba (comarca de los Pedroches) y la región del Alentejo en Portugal. Estas provincias y comarcas coinciden con las áreas transformadoras de las Denominaciones de Origen Protegidas (DOP) españolas de Jamón Ibérico: DOP Guijuelo (Salamanca), DOP Dehesa de Extremadura (Cáceres y Badajoz), DOP Jabugo (Huelva) y DOP Los Pedroches (Córdoba).

Del conjunto de las comarcas transformadoras, se selecciona aquí la Sierra de Huelva (coincide con la DOP Jabugo), compuesta por 31 municipios, con una superficie de 3.100 km<sup>2</sup> (30,6% de la provincia) y 39.433 habitantes (7,59% de la provincia), de acuerdo con el Padrón de 2016. Su población es escasa y envejecida, ha sufrido procesos emigratorios y registra baja densidad (12,72 habitantes/km<sup>2</sup>). Es una comarca caracterizada por la dehesa, protagonista de las actividades primarias, que dominan su economía, destacando una actividad secundaria: la industria del cerdo ibérico.

Como otras industrias agroalimentarias tradicionales, esta actividad conoce ciclos de crisis y expansión, dependiendo su inserción en el mercado de los períodos alcistas al ser los jamones ibéricos «productos de lujo». De cada una de esas crisis, el sector sale reestructurado, a veces sin haber superado la anterior. Estudiar las consecuencias de la última crisis económica sobre el sector en la Sierra de Huelva es el objetivo del presente trabajo, analizando los procesos y efectos empresariales en las escalas locales.

## 2. La industria del cerdo ibérico

La industria agroalimentaria es un subsector económico dinámico y su importancia en España hace que sea considerada estratégica. Pero las producciones agroalimentarias se ven afectadas en los períodos de crisis, especialmente los productos gourmet de alto valor (García-Delgado, Domínguez-Santos y Pizarro-Gómez, 2017). Por otra parte, este tipo de actividad está vinculada a sistemas productivos locales, motores de desarrollo rural en el contexto de la globalización, en el que el territorio «ostenta un protagonismo indiscutible» (Martínez-Puche, 2012: 20), al ser producciones no deslocalizables, por lo que las crisis pueden tener efectos demoledores sobre el tejido productivo local (pérdida de empleo, caída de los precios de la materia prima, etc.).

La búsqueda de ventajas competitivas de las producciones tradicionales en un mercado globalizado lleva a las industrias agroalimentarias a posicionarse con denominaciones de calidad (DC) o marchamos territoriales que las diferencian (Armesto-López, 2005). Los valores del territorio son los que van a atraer hacia las actividades tradicionales de alto valor añadido a grandes empresas en un proceso de relocalización (Ilbery, 2001), en busca de ventajas comparativas (García-Delgado, Domínguez-Santos y Pizarro-Gómez, 2017).

El cerdo ibérico y su industria han sido objeto de escasas investigaciones, aunque no así en la prensa especializada por su importancia en la distribución y exportación españolas. Los trabajos científicos han abordado el ganado (Veterinaria, Agronomía) y sus características industriales (Química, Farmacia). Desde la Economía hay trabajos recientes de Díez-Vial (2011), Díez-Vial y Fernández-Olmos (2012, 2013) y Fernández-Olmos y Díez-Vial (2013); y desde la Geografía de García-Delgado (2009), Rodero-González et al. (2013), Rodero-González (2014) y García-Delgado, Domínguez-Santos y Pizarro-Gómez (2017).

## 3. Metodología

Las fuentes del estudio son dos bases de datos oficiales. Para 2002 el *Registro de establecimientos autorizados para intercambios intracomunitarios* (del Ministerio de Sanidad y Consumo), en el que figuraban 93 industrias. Una vez desaparecido este registro, en 2017 se toma el *Registro general sanitario de empresas alimentarias y alimentos* (RGSEAA, del Ministerio de Sanidad, Servicios Sociales e Igualdad), gestionado por la Agencia Española

de Consumo, Seguridad Alimentaria y Nutrición (AECOSAN), resultando un total de 106 establecimientos.

En ambas bases de datos se recogen fichas individuales por industrias, que permiten comparar diferentes variables:

- Razón social (nombre, tipo societario).
- Domicilio industrial (no ofrece información destacable).
- Localidad.
- Provincia.
- Relación de categorías y actividades industriales.

Como complemento a estas fuentes se utilizan las publicaciones de García-Delgado (2009) y García-Delgado, Domínguez-Santos y Pizarro-Gómez (2017), realizadas para el conjunto de Sierra Morena Occidental y el municipio de Jabugo, respectivamente. Los datos obtenidos han sido complementados y contrastados en diciembre de 2017 con las bases de datos de información empresarial ofrecidas por Alimarket (buscador de empresas, en el que se consulta el sector de la alimentación en Huelva) y *Expansión* (directorio de empresas, en cuyo seno se trabaja la industria alimentaria de Huelva).

#### 4. Resultados

La industria cárnica del cerdo ibérico registra cinco actividades diferentes:

- Fábrica de embutidos (FE): producen solo embutidos; en 2017 hay una industria de este tipo (0,94%).
- Secadero de jamones (SJ): destinado al secado de piezas nobles (jamones y paletas). En 2002 eran el 15,05% de la actividad y en 2016, el 22,64%.
- Fábrica de embutidos y secadero de jamones (FESJ): fabrica piezas nobles y embutidos. Es la actividad que domina aunque tiende a retroceder, pasando del 73,12% en 2002 al 66,98% en 2017.
- Matadero industrial (MI): integra todas las actividades anteriores y suma el sacrificio de animales, pudiendo dar servicio a otras empresas. Son escasos y se corresponden, fundamentalmente, con empresas grandes. En 2017 son siete (6,60%) y en 2002, nueve (9,68%).
- Matadero de servicios (MS): se dedica exclusivamente al sacrificio para otras empresas. En 2002 eran dos (2,15%) y en 2017, tres (2,88%).

En el período estudiado se han producido cambios de actividad, que afectan a cinco industrias, pasando de MI a FESJ (dos) y de SJ a FESJ (una) y, al contrario, de FESJ a SJ (dos) (Tabla 1).

Al comparar ambos listados se observa que son similares, encontrando 93 industrias en 2002 y 106 en 2017, suponiendo un incremento del 12,26% de las actividades, pero con el análisis se observan cambios. Se han producido un total de 16 ceses de actividad (17,20%) entre 2002 y 2016. Por municipios, los ceses destacan en Cumbres Mayores (cinco) y Jabugo (tres). Por tipo de actividad, la mayor parte son de FESJ (13), el resto son SJ (dos) y MI (una). Por tipo societario, la mayoría se corresponden con SL (nueve empresas) y autónomos (cinco), afectando también a SA (dos).

Al analizar los cambios de titularidad se comprueba que afectan a un total de 11 empresas (11,83%). Es en los municipios de Jabugo (seis) y Cumbres Mayores (tres) en los que se observan la mayor parte de los cambios.

Por otro lado, se crean 27 industrias *ex novo* (25,47% del total de 2017). El patrón territorial cambia, con siete en Cumbres Mayores, tres en Aracena, tres en Cala, tres en Cortegana, dos en Hinojales y una en otros nueve municipios. Estas nuevas industrias son FESJ (13) y SJ (12), aparte de una FE y una MS. Además, un total de siete empresas han incrementado el número de establecimientos (aquí se computa el establecimiento principal), tres de ellas en Cumbres Mayores.

Un total de 14 empresas cambian de nombre, por sucesión y también por intereses comerciales, a veces creando otras empresas (con accionariado similar o idéntico). Aparte, se observan mutaciones societarias, que llevan a que desaparezca el sector cooperativo, en favor de SL, hacia las que evolucionan las actividades autónomas.

*Tabla 1. Industrias registradas por municipios en la Sierra de Huelva en 2002 y 2017.*  
Fuentes: Registros del Ministerio de Sanidad y Consumo (2002) y de AECOSAN (2017).

Municipio	2002						2017					
	FE	SJ	FESJ	MI	MS	Total	FE	SJ	FESJ	MI	MS	Total
Alájar	0	0	0	0	0	0	0	0	1	0	0	1
Almonaster la R.	0	2	2	0	0	4	0	1	3	0	0	4
Aracena	0	0	6	0	0	6	1	1	6	0	0	8
Aroche	0	0	1	0	0	1	0	0	1	0	0	1
Arroyomolinos L.	0	0	1	0	0	1	0	0	1	0	0	1
Cala	0	1	1	0	0	2	0	3	1	0	0	4
Castaño del R.	0	2	1	0	0	3	0	1	2	0	0	3
Corteconcepción	0	0	3	1	0	4	0	0	3	1	0	4
Cortegana	0	0	4	2	0	6	0	3	1	2	0	6
Cortelazor	0	0	1	0	0	1	0	0	1	0	0	1
Cumbres de E.	0	0	3	0	0	3	0	0	1	0	0	1
Cumbres de S. B.	0	0	2	0	0	2	0	0	2	0	0	2
Cumbres Mayores	0	1	22	1	1	25	0	6	21	0	1	28
Encinasola	0	0	0	0	0	0	0	1	0	0	0	1
Galaroza	0	0	1	0	0	1	0	0	1	0	1	2
Granada de R. T.	0	0	0	0	0	0	0	0	1	0	0	1
Higuera de la S.	0	0	1	0	0	1	0	0	2	0	0	2
Hinojales	0	0	0	0	0	0	0	0	2	0	0	2
Jabugo	0	8	11	5	1	25	0	8	12	4	1	25
Linares de la S.	0	0	1	0	0	1	0	0	1	0	0	1
Marines, Los	0	0	1	0	0	1	0	0	1	0	0	1
Rosal de la F.	0	0	1	0	0	1	0	0	0	0	0	0
Santa Ana la R.	0	0	0	0	0	0	0	0	1	0	0	1
Santa Olalla del C.	0	0	4	0	0	4	0	0	5	0	0	5
Valdelarco	0	0	1	0	0	1	0	0	1	0	0	1
Total	0	14	68	9	2	93	1	24	71	7	3	106

Por volumen de producción, las industrias pueden dividirse en (García-Delgado, 2009: 398-401; Tabla 2): microempresas (por debajo de 500 animales o 2.000 piezas), pequeñas (500-3.000 animales o 2.000-12.000 piezas), medianas (3.001-10.000 animales o 12.004-40.000 piezas), grandes (10.001-50.000 animales o 40.004-200.000 piezas) y macroempresas ( $\geq 50.001$  animales y  $\geq 200.001$  piezas).

Los ceses de actividad destacan entre microempresas e industrias pequeñas. En cambio, los cambios de titularidad se registran sobre todo entre las grandes y medianas; afectan, también, a una de las dos macroempresas presentes.

*Tabla 2. Evolución de industrias registradas por municipios en la Sierra de Huelva entre 2002 y 2017 según tamaño (volumen de producción). Fuentes: Registros del Ministerio de Sanidad y Consumo (2002) y de AECOSAN (2017) y García-Delgado (2009).*

	2002-2017			
	Cese	Cambio de titularidad	<i>Ex novo</i>	Sin cambio
Macroempresas	0	1	0	1
Grandes	2	4	2	7
Medianas	2	3	2	13
Pequeñas	8	1	7	17
Microempresas	4	1	0	2
Sin datos	0	1	17	22

En 1995 se crea la DOP «Jamón de Huelva», que desde 2017 se denomina DOP «Jabugo». En 2002, 27 empresas de nueve municipios (29,03%) formaban parte de la DOP, destacando empresas de Cumbres Mayores (diez) y Jabugo (seis). En 2017, son 28 (26,41%) en ocho municipios, con incremento en Jabugo (13) y retroceso en Cumbres Mayores (seis). Además, existe movilidad empresarial, con entrada y salida de empresas en la DOP (Tabla 3).

*Tabla 3. Industrias acogidas a la DOP «Jamón de Huelva»/«Jabugo» por municipios en 2002 y 2017. Fuente: Consejo regulador de la DOP Jamón de Huelva/«Jabugo».*

Municipio	2002 (DOP «Jamón de Huelva»)	2017 (DOP «Jabugo»)
Almonaster la Real	2	1 <sup>(1)</sup>
Aracena	2	2 <sup>(1)</sup>
Aroche	1	1
Corteconcepción	2	1 <sup>(1)</sup>
Castaño del Robledo	2	0
Cortegana	1	3 <sup>(2)</sup>
Cumbres Mayores	10	6
Jabugo	6	13 <sup>(3)</sup>
Santa Olalla del Cala	1	1
Total	27	28

<sup>(1)</sup> Cambia una de las empresas. <sup>(2)</sup> Se mantiene una de las empresas, se incorporan dos. <sup>(3)</sup> Tres empresas abandonan la DOP, se incorporan diez.

### 5. *Discusión y conclusión*

En la Sierra de Huelva la industria del cerdo ibérico es muy importante, destacando por número de empresas y producción total los municipios de Cumbres Mayores y Jabugo. En la comparativa entre los datos de 2002 y 2017 se aprecian importantes cambios.

En conjunto, el crecimiento de la actividad ha sido del 12,26% entre 2002 y 2017, lo que cabría atribuir al crecimiento progresivo de la actividad. Sin embargo, el análisis en detalle desvela cambios similares a los observados para otras comarcas (Rodero-González, 2014). Destacan las FESJ, aunque la actividad que más aumenta es la de SJ, al precisar instalaciones más baratas y emplear escasa mano de obra, sacrificando con frecuencia fuera de la comarca (actividades deslocalizadas).

Al analizar los ceses se comprueba que el 17,20% de las actividades de 2002 han desaparecido, concentrándose en los dos municipios más importantes: Cumbres Mayores y Jabugo, viéndose afectadas micro-empresas (autónomos) por jubilación (y extinción del negocio), y empresas de tamaño pequeño y mediano (SL y SA) víctimas de los acreedores bancarios. Se reduce en el conjunto el número de FESJ (81,25% de los ceses).

Las empresas que cambian de titularidad conocen la afluencia de capitales externos (sedes en Cataluña, Madrid y Sevilla), con procesos de integración diagonal (proviene del cerdo blanco) y en dos casos de integración horizontal (la empresa más importante compra otras dos a un grupo inversor). Así, se consagra el control del tejido industrial por grandes empresas foráneas, en un proceso de concentración de la producción en grandes industrias (García-Delgado, Domínguez-Santos y Pizarro-Gómez, 2017), que afecta fundamentalmente al municipio de Jabugo, mientras en Cumbres Mayores domina la actividad en manos locales. Como establecen García-Delgado, Domínguez-Santos y Pizarro-Gómez (2017), la dimensión ha sido una de las claves: pequeñas industrias desaparecen (suspensión de pagos, embargos, falta de relevo generacional...), medianas son absorbidas y grandes refuerzan su posición (absorciones).

Las nuevas empresas aparecen en 14 municipios, de forma destacada en Cumbres Mayores (25,93% de las creadas), tratándose de FESJ y SJ. Es necesario tener en cuenta las limitaciones de suelo industrial en los municipios pertenecientes al Parque Natural Sierra de Aracena y Picos de Aroche y las limitaciones de suelo por su extensión (Jabugo).

Comienza a observarse el cambio de nombre de empresas, algunas de ellas buscando la denominación «Jabugo». El conocimiento comercial del topónimo como denominación común del jamón ibérico ha llevado a que determinadas empresas busquen instalarse en este municipio, pero también al cambio de nombre. Esta denominación es adoptada por diez empresas ajenas al municipio (12,45%), aunque cuatro de ellas acogidas a la DOP Jabugo.

El tipo societario predominante era y es la SL, seguida de la SA. Las empresas autónomas tienden a desaparecer, como lo han hecho las Cooperativas, siempre escasas (García-Delgado, 2009).

Del total, solo 38 empresas (40,86% de 2002 y 35,85% de 2016) no han sufrido ningún cambio, fundamentalmente grandes empresas y pequeñas y microempresas. El resultado final es una industria fragmentada y tradicional que convive con la grande y moderna, que ha salido reforzada de la crisis (controla la distribución). Al analizar territorialmente los cambios, estos afectan fundamentalmente a Jabugo y Cumbres Mayores,



observándose que estos cambios están inducidos por la llegada de empresas foráneas y, en el segundo caso, también por dinámica interna de las empresas.

La DOP Jabugo ha tenido una escasa incidencia fuera de Jabugo, y en ocasiones hay industrias acogidas que no producen dentro de ella, y en entramados empresariales hay unas instalaciones acogidas y otras no. También este cambio de nombre de la DOP supone un cambio de filosofía: ampara jamones de cerdo el ibérico 100% y de bellota, mientras el resto de los productos quedan condicionados por la norma de calidad de 2014 (Ministerio de Agricultura, Alimentación y Medio Ambiente, 2014). Por otra parte, frente a procesos de exclusión de las DOP (García-Delgado, 2009), el nuevo planteamiento es un proceso integrador para la comarca.

Este estudio demuestra que el sector ha sufrido transformaciones profundas. Se produce el fin de un modelo de desarrollo local endógeno, con una enajenación del capital territorial. Ello ha llevado al fin de la empresa tradicional, pero en su fin se encuentra la incapacidad de adaptarse a nuevas situaciones y de desarrollar una visión estratégica de la empresa.

A partir de los resultados y conclusiones obtenidos, cabe plantearse como futuras líneas de investigación qué ha pasado en otros municipios y comarcas especializados, qué repercusiones han tenido estos procesos sobre el empleo local y cuáles son las posibilidades de conformación de un clúster en torno a la DOP Jabugo.

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#### **4. Alternativeness inside Tradition: Culinary Knowledge and Non-Conventional Vegetables as Non-Globalized Spaces in Teopisca (Chiapas, Mexico)**

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##### *1. Introduction*

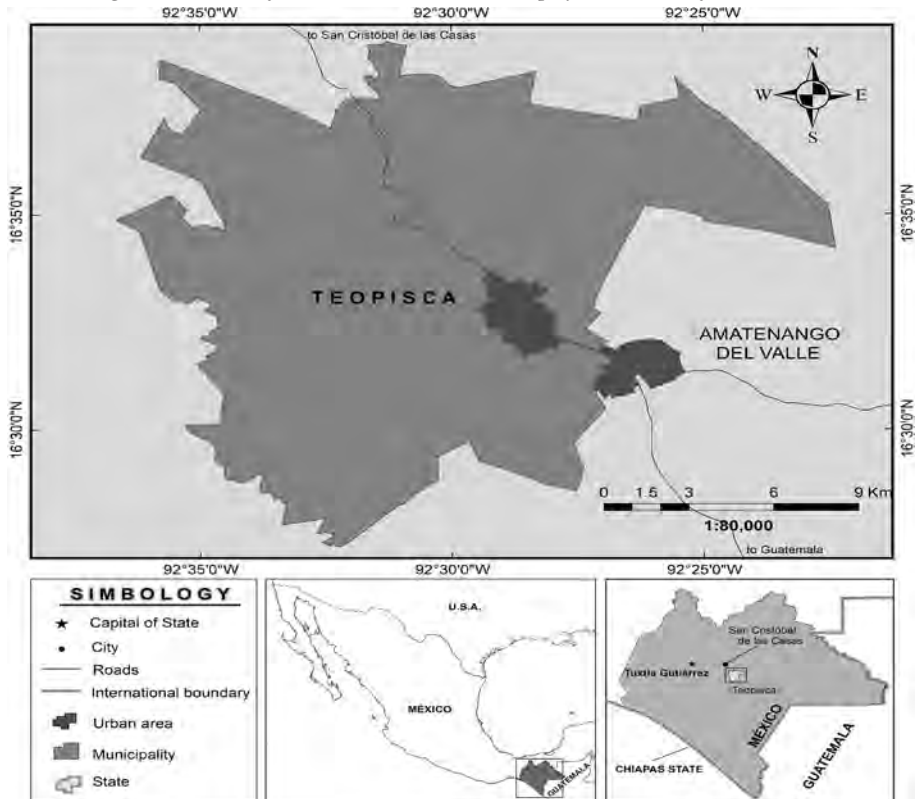
Notwithstanding its remarkable expansion, the undesirable effects of globally dominant agri-food networks have been widely discussed (Rosset, 2006; Sage, 2012; Ritzer, 2013). Two major concerns about these noxious consequences of the conventional food system relate to the loss of biocultural diversity (Maffi and Dilts, 2014; Sethi, 2015), and to the disconnection between the areas where food is produced and the spaces where that food is consumed (Paül and Haslam McKenzie, 2013; Navin, 2016) distribution and consumption of food. Part of this literature emphasises the local scale and the idea of proximity. In a world that is increasingly urban, AFNs at a local scale can be more easily developed by linking peri-urban farmlands and cities. However, agriculture in the rural-urban fringe struggles to survive in the face of urban pressures and sprawl; a process which undermines viable agricultural production in the city's countryside. A widely used strategy to address these pressures has been farmland protection, undertaken in different ways depending on the legal framework of particular countries. This paper considers farmland conservation and AFNs development issues through a case-study of the Baix Llobregat Agricultural Park (BLAP). Therefore, in the search for alternatives to the agri-food industry, one of the key areas to explore are non-globalised spaces, because of their disconnection from the dominant system (Nabhan, 2013). In this context, regional cultures have much to offer. Mexico is a country with a long and diversified culinary tradition, within which national gastronomy has been recognised as intangible cultural heritage by UNESCO (Navarro, 2010). In Mexican cuisine, non-conventional vegetables have played an important role, which has been recognised since the colonial era (Bye and Linares, 2000). Traditional Mexican cuisines and non-conventional vegetables continue to survive in spite of the domination of global agri-food networks.

The objective of this work is to determine the contribution of culinary knowledge linked to non-conventional vegetables in the search for alternatives to the dominant agri-food networks. The research work focusses on the case of the culinary knowledge owned by the members of a women's collective called "Mujeres y Maíz" in Teopisca, Chiapas, in the Southeast of Mexico. This collective has been dedicated to the defence of local corn landraces since 2008. Their efforts take place in one of the national regions with high index of marginalization, hunger and malnutrition (INEGI, 2010a; CONAPO, 2012). At the same time, Chiapas is a state with some of the highest levels of cultural and biological diversity in Mexico (INEGI, 2010b; CONABIO, 2013).

Teopisca is a municipality in the Highlands Region of Chiapas, Mexico, with a population of 43,175 inhabitants (Figure 1). 48.4% are men, while 51.6% are women. Teopisca capital city's population is 16,240. The predominant vegetation types are pine and oak

forest, and induced grasslands. The main economic activities are corn cultivation, live-stock production, and forestry. Although the majority of the village population is *mestizo*, of mixed Indigenous and European ancestry, the study area is located in a predominantly Indigenous area (INEGI, 2010a).

Figure 1. Location of the research area. Source: Map by David Uribe for the author.



## 2. Theoretical Insights

Feeding humanity is a complex topic in which economic, cultural, historical, technological, ecological and geographical factors are interrelated (Palacios et al., 2016). Therefore, when looking for alternatives, it is essential to consider this complexity. One of the less explored perspectives in the formation of alternative agri-food networks is the contribution that culinary aspects can bring to this field. Culinary knowledge is part of food culture. It refers to the set of meanings, representations, senses of belonging, beliefs, taboos, fears, and affections around food practices, that are shared by a social group (Meléndez and Cádiz, 2010).

In any given food culture it is common to find some traditionally consumed food items, which are now neglected by the global food market. Several of these food items form part of local biodiversity. Their procurement, preparation and consumption reveal

deep understanding of local ecosystems, and a certain degree of adaptation to geographical, historical, social and economic conditions (Nabhan, 2008; Newman, 2017). However, the use of and demand for these food items are now decreasing due to the tendencies of modern diets to include more industrialized food products, the urbanisation process, and the effects of the free market. The non-conventional vegetables still found in many local food systems are an example of this phenomenon (Dweba and Mearns, 2011; Bahuchet, Aubaile and Palafox, 2016).

Mexico is internationally recognised as a country with high levels of diversity, both biological and cultural (Boege, 2008). One example of this richness is the consumption of native vegetables that grow spontaneously by the *Mexicas* or Aztecs, which has been documented since the sixteenth century (Bye and Linares, 2000). As expected, these vegetables have been part of Mexican cuisine for generations. Further South, where there is still a clear presence of the Mayan culture, these unconventional vegetables continue to be part of the daily diet (Ramírez-Salinas and Castro-Ramírez, 2011). However, the presence of these plants, currently perceived as weeds by conventional agricultural practitioners, is impaired by the use of herbicides. In addition, these edible herbs are not usually part of the commercial foods of the region. For these reasons, the consumption of such species in the daily diet tends to be reduced and replaced by other ingredients considered as being more modern or of possessing greater social prestige (Bye and Linares, 2000; de Garine and Vargas, 2006).

For all these reasons, the culinary knowledge linked to non-conventional vegetables is a relevant field of study in any discussions of alternatives. This is particularly so when food sources that are sustainable, culturally appropriate, and offer better adapted responses to the noxious effects of the industrialized food system, such as biocultural diversity loss and disconnection between people and local biodiversity, are being sought.

### 3. *Methods*

This study is based on fieldwork done during a seven month visit with the 12 members of the “Mujeres y Maíz” Collective who live in Teopisca, Chiapas, Mexico. The women who participated in this research were between 18 and 55 years old. They are related by kinship, and belong to six different familial groups. This Collective is a non-profit organisation that has been working in the Highlands Chiapas, Mexico Region for the last ten years. Their goal is to support each other in the elaboration of traditional food products made from local corn landraces, such as *tortillas*, *tamales* and *tostadas*. The women’s products are sold in the larger cities of the Highlands Chiapas Region, both by themselves or in one of the alternative food markets in the area (Red de Productores y Consumidores Responsables Comida Sana y Cercana, 2014).

In order to observe the manifestations of culinary knowledge associated with non-conventional vegetables, we conducted participatory observations in the kitchens of every familial group during cooking times. By combining semi-structured interviews with field notes and observations, we documented the names of the non-conventional vegetables used for culinary purposes, the procurement spaces for those plants, the preparation techniques, the cooking tools that were used, the consumption circumstances, as well as the local nomenclature for every dish.

Accompanied by different participants, we visited home gardens, farm plots, and the areas surrounding Teopisca. Once a month we visited the local traditional market, as well as the supermarket, to take notes about the presence of the non-conventional vegetables mentioned during the interviews and cooking times.

All of this data was analysed by categorizing the interview audio files, field notes and confirming information with the participants. After the analysis, we identified local knowledges associated with the aspects of biocultural diversity mentioned above.

#### 4. Findings

We found that the women who participated in this study recognised 13 different plants which were used as non-conventional vegetables, and 33 recipes involving them. All of the identified vegetables are wild and they grow spontaneously, without being planted. More than 60% of the listed vegetables are native species of the research area.

Regarding the supply spaces, none of these vegetables could be found during our monthly visits to the local supermarkets. However, more than 60% of the listed non-conventional vegetables were found at the traditional local market.

We listed more than six non-conventional vegetable supply spaces, which is more than would be expected, in the larger villages in the Region (Flores Reyes, 2012). Some of these spaces, such as home gardens, forest areas, surrounding trails, or watercourses, are neither production areas, nor stores or sales centers.

Social and familial relationships were identified as playing a key role in obtaining and providing specific vegetables both for cooking or transplanted in the home garden. These relationships are also the basis for communal work in the kitchen. Additionally, these relationships lead to food sharing between families and community members.

The main cooking techniques associated with the non-conventional vegetables are boiling, parboiling, and preparation in *tamales* or as *quesadillas*. Their raw consumption also occurred, including consumption at the places where the plants were growing.

In these cooking processes, the women used several traditional tools such as a flat grill or *comal* for *quesadilla* making, an artisanal steamer pot for making tamales, some crock pots, a wood stove, and a coal burner, also called *anafre*. They also used some important non-culinary tools, such as the *machete*, or broad knife, and the *morral*, or artisanal bag. Both of these tools are necessary for vegetable gathering.

All of the culinary confections that we studied are part of the basic local cuisine. This means that none of the documented recipes appeared as festive dishes or as fancy food. However, all the non-conventional vegetables were invariably consumed in combination with corn, beans, or chili, the main components of the typical Mexican diet.

Gender roles were also relevant. Women are the ones who generally cook for the whole family. Their husbands and sons are called on to gather the vegetables they plan to consume. Therefore, non-conventional vegetable gathering is a male duty.

During the interviews and visit, we also identified a clear rejection from the younger generation of the consumption of non-conventional vegetables, and an expressed preference for modern industrialized food products such as soft drinks, chips, and ham.

Finally, the nomenclature of some of the documented vegetables, such as *tsuy* or *epazote*, reveals an Indigenous language root, possibly coming from the Mayan Tsotsil-Tseltal or the Nahuatl languages.

### 5. *Discussion and Conclusion*

Bye and Linares (2000) recognise at least 350 species of non-conventional edible herb plants which have been consumed in Mexico from the colonial era to the present. Thus, the 13 species we identified could be just one part of the actual culinary knowledge contained within the research area. However, it is important to remember that this is a case study focussing on a social group that plays a key role in the search for alternative agri-food networks in the region. Future research in the same area is recommended in order to reach a wider population.

Given that the listed vegetables grow spontaneously — both in, and outside the farming plots —, and that most of them originate from the research area, it is indeed possible that we are dealing with edible plants that have been successfully adapted to the local landscape, weather conditions, and traditional agricultural system. They may therefore have the potential to increase local food system resilience, as reported in similar studies (Ramírez-Salinas and Castro-Ramírez, 2011; Bahuchet, Aubaile and Palafox, 2016; Newman, 2017).

Another sign of the diversity within the culinary traditions associated with non-conventional vegetables is the variety of supply spaces from which these vegetables can be obtained. None of these edible plants are sold in the branches of the Walmart chain in the area, which further demonstrates their high level of independence from conventional agri-food networks. This means that these vegetables and the culinary confections linked to them are shielded from the undesirable effects of conventional agri-food networks, such as the loss of biocultural diversity. Consequently, unconventional vegetables and the culinary knowledge associated with them are examples of non-globalised spaces.

Regarding alternative food networks, it is important to consider not only the production, distribution, and retailing of food, but the relationship between these aspects and culinary practices. This is especially important when talking about non-conventional foods. In order to retain their consumption, it is necessary to preserve the culinary knowledge and cultural implications associated with these foods (Dweba and Mearns, 2011; Nabhan, 2013). Otherwise, it is probable that these foods will disappear or be substituted by more industrialized options.

The culinary knowledge associated with non-conventional vegetables among the women of the “Colectivo Mujeres y Maíz” in Teopisca provides ecological and cultural information that completely escapes the global trend towards the homogenization of food, which favours the loss of biocultural diversity. In this way, these culinary aspects are an important element not only for the design and implementation of food strategies adapted to the specific local needs, but also for the analysis and application of locally appropriate food initiatives, aimed at overcoming the negative effects of the dominant food system.

We agree with those authors who identify the need to “stop viewing food as a commodity”, and recognise instead that purchasing food is not the only way in which people can access it (Nájera and Álvarez, 2010; Coté, 2016). Instead, the culinary knowledge

documented here provides a lesson on autonomy and food self-sufficiency based on re-connection to the land and community.

Nevertheless, abandonment of the consumption of unconventional vegetables and other food traditions has already been noted (de Garine and Vargas, 2006; Nájera and Álvarez, 2010; Dweba and Mearns, 2011). Given that we found evidence of this process in Teopisca, we strongly recommend expanding research in this area, and an increase in efforts to revitalization and educate in order to motivate young people to value the food cultures of their regions and to become involved with them.

In conclusion, culinary knowledge and unconventional plants are two aspects of the food traditions in Teopisca, which are totally disconnected from the dominant global market and prevailing agri-food systems. Therefore, in the search for alternative agri-food networks, it is crucial to take a look at our own traditions. Culinary knowledge and unconventional vegetables should be considered as key elements in the development of food strategies and agri-food networks that are adapted to local needs, environmental conditions, and cultural preferences. These key elements will aid in the design of locally embedded feeding strategies that overcome the “harmful” effects of the food industry such as the global trend towards food standardization and biocultural diversity loss.

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## 5. Outlining the Alternativeness of Urban and Peasant Food Networks in the Global South. A Case Study in the Concepción Metropolitan Area (Chile)

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### 1. Introduction

Alternative Food Networks (AFN) are spread out around the world, but international literature has given little attention to their analysis in the Global South. This paper will focus on the particular characteristics and behaviours that can be found in this region and, specifically in Chile.

The assumption is that the Global South counts on two major kinds of AFN: one based on the reformulation of peasant and local food systems and the renovation of their practices, and another based on the building of new connections between urban and regional food actors based on trust, and linking the city with local farmland. Both comprise a common front against industrial food systems, although each one shape differently as AFN.

This paper will outline the main differences between Peasant and Urban AFN taking the Concepción Metropolitan Area in Chile as a case study. The main objective is to identify the typologies linked to each kind of AFN and to characterise their alternativeness in order to evaluate both through comparative analyses. In this framework, the following questions arise: Which dimensions of alternativeness define each kind of AFN? Do Peasant and Urban AFN work in parallel or complementarily?

The final goal is to discuss about the contribution of each kind of AFN and the coherence and consistency of these networks.

### 2. Alternativeness in the Alternative Food Networks

A first approximation shows that opposition to industrial, enforced and conventional production, distribution and consumption is a basic principle of AFN (Feenstra, 1997). Wilson (2013) defined them as autonomous food spaces. In these kinds of food systems, production is de-localised from cities (Steel, 2008[2013]), food travels thousands of kilometres and consumers address basic needs such as food security (di Masso, 2012). However, the citizenship diet is global, urban-rural relationships are weak or even broken and local agriculture, identity, landscape and knowledge are threatened with extinction (Calle et al., 2012; Cid, 2014). Despite this clear conceptual differentiation, alternative and conventional limits are not clearly delineated (Ilbery and Maye, 2005; Blay-Palmer and Donald, 2006) and result in a problematic & simplistic binary unable to represent the complexity of reality (Hinrichs, 2000; Sonnino and Marsden, 2006; Wilson, 2013).

International literature reveals heterogeneous and uneven initiatives that are diverse in nature and space (Paül and Haslam McKenzie, 2013), economical embeddedness (Goodman, 2004), ecological embeddedness (Penker, 2006), geographic foodshed (Gillespie et al., 2007) or related with or found in a traditional system (Sonnino and Marsden, 2005).

Furthermore, AFNs are hybrid constructs defined by the different dimensions of their alternativeness (Si, Schumilas and Scott, 2015). A main component seems to be food quality (Renting, Marsden and Banks, 2003; Goodman, 2004), a socially-constructed criterion that confronts the institutionalised standards of quality, the aim of which is healthy and chemical-free food. Another component is a local nature. AFN shorten food chains and urban foodshed in order to build and strengthen local food systems (Feagan, 2007), although the distance implied by “local” differs among authors (Paül and McKenzie, 2013). The ecological component is related to eating seasonal, regional diets and sustainable practices (Jaroz, 2008). Whatmore, Stassart and Renting (2003) identified another three main components of “alternativeness”:

- redistribution of value throughout the network;
- reconnection and trust; and
- new forms of political association and market governance.

Si, Schumilas and Scott (2015) summarise the dimensions of alternativeness into eight elements in order to overcome the binary alternative-conventional view: four attributes of food — ecological production, healthy food, locally procured food and seasonal food — and four relationships embedded within AFN — strengthening of social ties and personal connections, small-scale production, ethical production and new forms of political association of AFNs —.

Besides the previous dimensions, Ibery et al. (2005) and Sánchez-Hernández (2009) proposed three categories to build the alternativeness: the nature of a product, the process (production and distribution), and the place of provenance. Each AFN combines these three categories in different proportions.

Alternately, Sánchez-Hernández (2009) classifies thirteen basic typologies of AFN based on an analysis of English-language literature. Although there is still little analysis of alternativeness in emerging countries, a few breakthroughs have been made in Brazil (Rocha and Lessa, 2009), South Africa (Abrahams, 2007) and China (Si, Schumilas and Scott, 2005), where four types have been identified: farmer’s markets, community-supported agriculture, purchasing clubs and community gardens.

### *3. Methodological Considerations*

The Concepción Metropolitan Area (CMA) is the second-largest conurbation in Chile with a population of almost a million inhabitants (INE, 2017). It is located on the coast of the Biobío Region and consists of 11 municipalities with a hierarchical organisation. The forest and food industries have a very strong presence in the Biobío Region, accounting for nearly 6% of its GDP (ODEPA, 2010). The food industry is situated mainly in the Central Valley. While in contrast, small-scale farming is still alive scattered throughout the regional farmland.

The criterion to classify AFN in Urban and Peasant is related to the area from where the driven agents act: from rural to urban or from urban to rural. Both (re)build links

between country and city, citizens and producers, but in opposite directions. For this paper, data about how they work or how long they have been acting are collected throughout the fieldwork. In addition, the characterisation of alternativeness of AFNs is based on the three arguments proposed by Sánchez-Hernández (2009) that structure data collection. This structure organises the eight dimensions proposed by Si, Schumilas and Scott (2015) and other new criteria related to regional identity.

Thus, the data is grouped into three blocks (Table 1), for analysing the *alternativeness* of AFN in CMA: products, process and place. The first tackles the information regarding the criteria that urban and peasant actors use to choose the products they work with, the types of products and the diversity of varieties moving from countryside to city. The second gathers information regarding the short supply chain length and modus operandi. The third examines the spatial distribution of the two sides of the short supply chain: the municipality the products came from and urban locations where the citizenry have accessibility to those products.

Table 1. Methodology for the analysis of alternativeness. Source: Table by the authors.

Products	
(1) Selection criteria	Local, healthy, ecological and/or seasonal
(2) Types of products	Percentage of fresh and processed products
(3) Diversity	Total number of variety of products within the local food system
Process	
(4) Supply chain length	Number of actors within the chain
(5) Supply chain modus operandi	Strengthening of social ties and personal connections, small-scale production, ethical production and new forms of political association of AFNs.
Place	
(6) Urban accessibility	Spatial distribution of the urban food locations where citizenry can access AFN products in the CMA.
(7) Geographical foodshed	Spatial distribution of the municipalities within the Biobío Region supplying fresh and processed products to AFN

A qualitative research study was carried out to analyse the alternativeness of peasant and urban AFN. Firstly, a purposeful sampling strategy-snowballing technique was applied to identify the key actors in the AFN in CMA. A preliminary classification of peasant and urban AFN arose from this step. Secondly, an Actors Map was created with 41 cases. For Peasant AFN, the 4 farmer markets institutionalised were selected. For Urban AFN 8 representative cases were selected, because their high visibility on social media and their important role in the AFN group. Semi-structured interviews were conducted with key actors to confirm their classification and to analyse their alternativeness. Questions gathered information on the seven criteria summarised above. The collected data were used to build the comparison Table 2, the urban accessibility map (Figure 1), and the geographical foodshed maps (Figures 2 and 3). Data collection was carried out during the

southern hemisphere winter, thus restricting results to the regional products produced in this season.

#### 4. Results

The following table and the urban and foodshed maps summarise the characteristics of the two primary types of AFN in Concepción: peasant and urban.

*Table 2. Peasant and Urban AFN in Concepción (Chile). Source: Table by the authors.*

	Peasant	Urban
General information		
Official establishment	5-10 years ago	2 years ago
Typologies	4 farmer markets	Urban shops Catering Purchasing clubs
Products		
Selection criteria	<ul style="list-style-type: none"> <li>– Mainly local</li> <li>– Fresh products</li> <li>– Most of them agro-ecological (3/4 markets)</li> <li>– Fresh and processed food seasonal</li> <li>– Strong peasant identity</li> <li>– Solidarity economy</li> </ul>	<ul style="list-style-type: none"> <li>– Tend to be local (some regional and national)</li> <li>– Healthy (some gluten-free &amp; vegan diet)</li> <li>– Tend to be agro-ecological</li> <li>– Fresh seasonal</li> <li>– Strong sense of solidarity economy</li> </ul>
Types of products	46.7% fresh food 53.3% processed food	27.7% fresh food 72.3% processed food
Diversity	157 varieties	152 varieties
Process		
Supply chain length	Direct relation between producers and citizenry	One intermediary
Supply chain criteria modus operandi	<ul style="list-style-type: none"> <li>– Peasant organisations</li> <li>– Small-scale production</li> <li>– Solidarity economy</li> <li>– Peasant political discourse</li> <li>– Added value</li> </ul>	<ul style="list-style-type: none"> <li>– Networks of commitment citizenry-producers</li> <li>– Small-scale production</li> <li>– Solidarity economy</li> <li>– Intermediaries and citizenry political and healthy discourse.</li> <li>– Added value</li> </ul>
Place		
Urban accessibility	<ul style="list-style-type: none"> <li>– Urban food nodes (around 20-25 stands selling different kinds of products)</li> <li>– Distribution throughout the metropolitan area (4 out of 11 municipalities)</li> </ul>	<ul style="list-style-type: none"> <li>– Urban food points (just one stall for accessibility)</li> <li>– Concentration in city centre (1 out of 11 municipalities)</li> </ul>
Geographical foodshed	Concentrated within the CMA and first ring of municipalities	Regional scale

Figure 1. Accessibility to urban and metropolitan points and nodes. Source: Map by the authors.

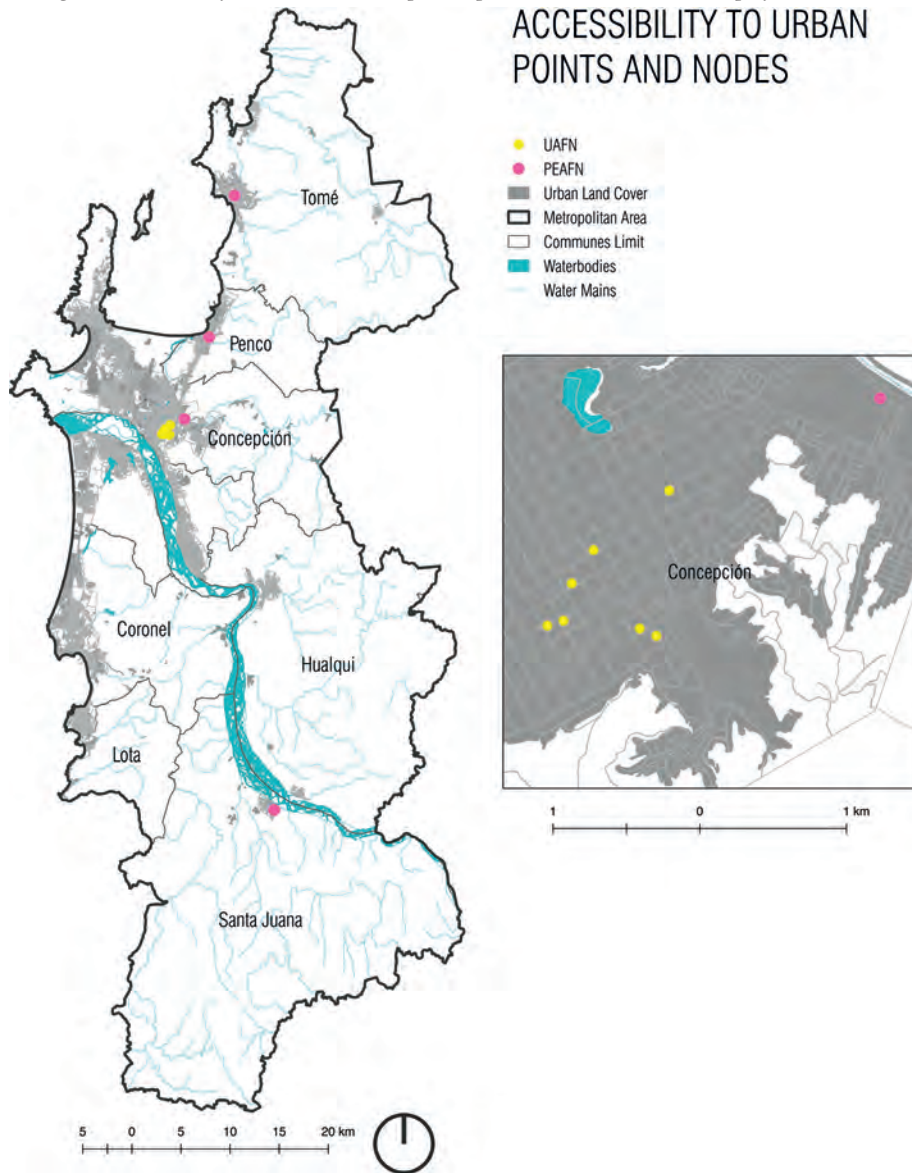
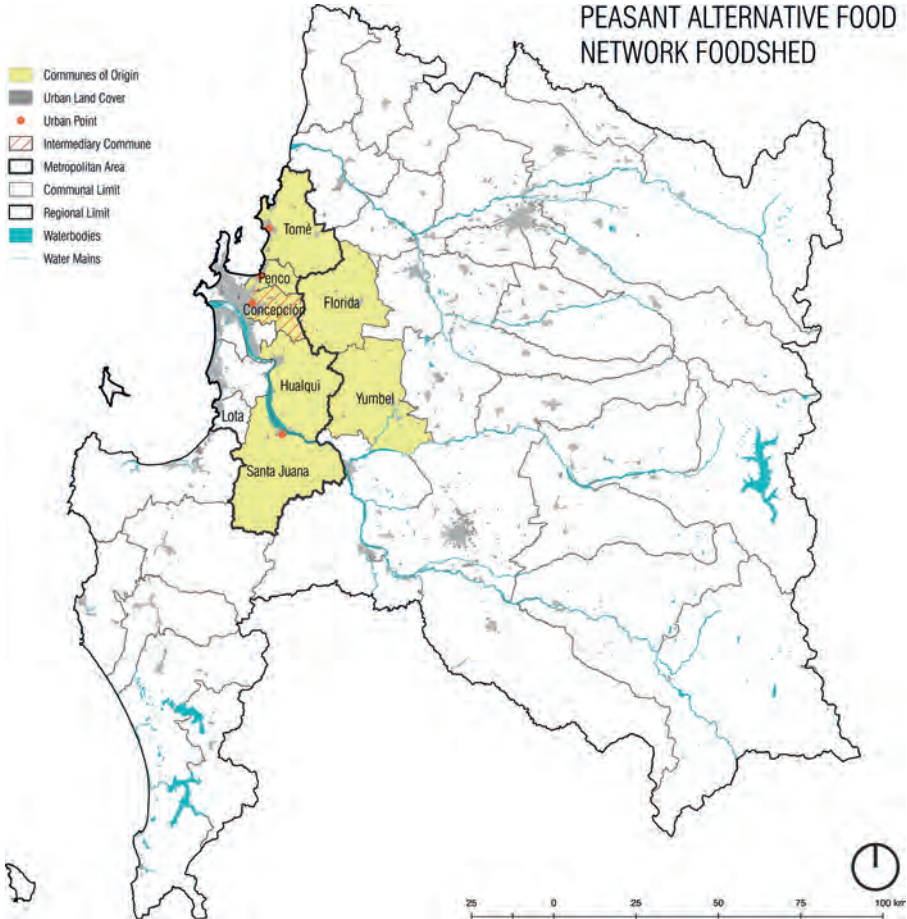


Figure 2. Peasant AFN foodshed. Source: Map by the authors.



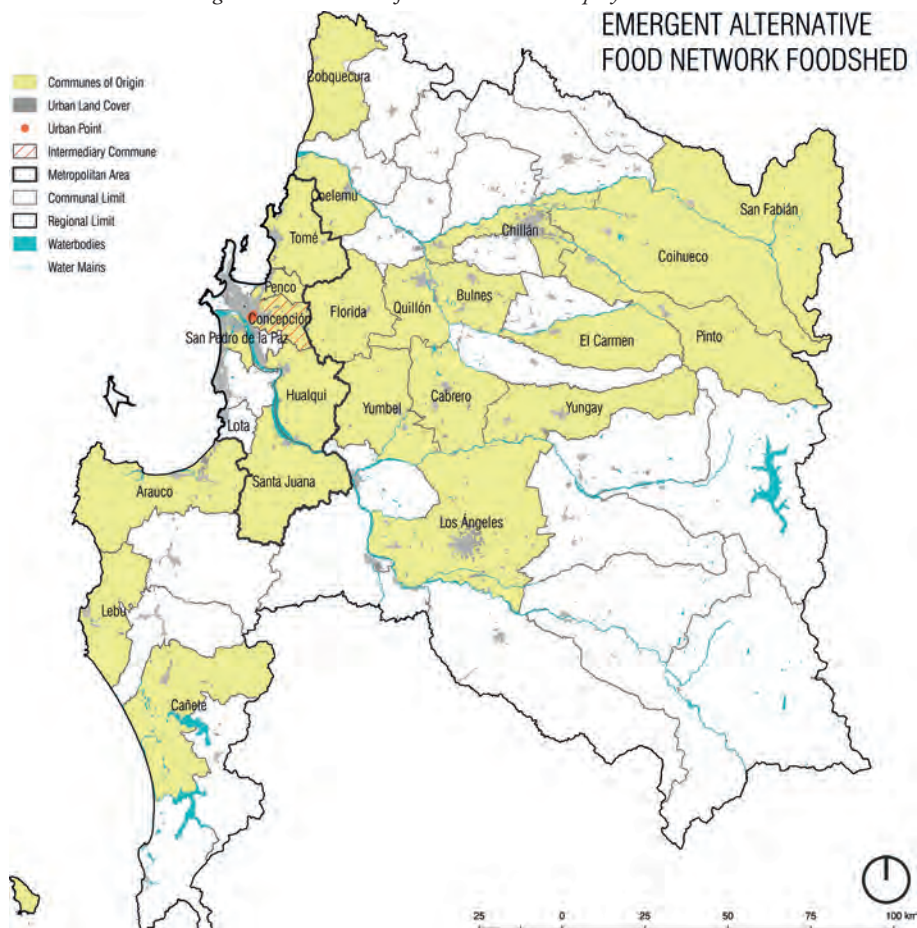
### 5. Discussion and Conclusions

An analysis of alternativeness made it possible to characterise two major kinds of AFN in the Concepción metropolitan area. Peasant Alternative Food Networks (PEAFN) result in a relatively homogenous system in Concepción, which was officially established around 5-10 years ago. It is comprised of 4 officially established farmer markets where “local” peasants trade their products. However, Urban Alternative Food Networks (UAFN) seem to be a more heterogeneous group of urban points: shops, restaurants, caterings and purchasing clubs, most of which were only established within the last 2 years in the city centre.

Differences between the networks define each one in turn. The main characteristics of alternativeness that shape PEAFN and UAFN will be discussed along the following lines through the analysis of Table 2 and Figures 1, 2 and 3. Regarding the products, there are two main dissimilarities: firstly, the selection criteria between fresh and healthy. PEAFN



Figure 3. Urban AFN foodshed. Source: Map by the authors.



offer fresh and local products, but some UAFN go further by offering special products for people with health problems. Sometimes to access these products they have to resort to national or international markets. Secondly, the percentage of fresh products is higher in PEA FN because of the proximity of their origin and the strong peasant identity that defines the manner of production and trade (Cid, 2014). The percentage of processed products is higher in UAFN, thereby showing that products from the regional area are mainly of this kind.

Regarding the process, there are also two main differences. Firstly, the length of the supply chain. In both cases, it can be defined as short, but PEA FN build a direct relationship by bringing producers closer to the city and its citizens. Meanwhile, UAFN construct a new relationship, usually through an intermediary, who “builds” the network. Purchasing clubs are the exception, as the citizenry themselves organise the network. Secondly, the social connections generated also are different. PEA FN are peasant

organisations with the aim of strengthening the rural sector and bringing it closer to urban consumers. UAFN are democratic citizenry-intermediaries-producer networks built on trust, commitment, fair trade, and healthy and/or ecological products. Finally, the actors and use of the political discourse differ in each AFN. Both AFN have a political discourse that is focussed not only on criticising the industrial food system, but also on creating a democratic and accessible alternative to it. PAFN tend to commit to this political discourse when they are linked to organisations and unions. When this is not the case, traders tend to have a discourse focussed on the recovery and continuity of peasant identity and tradition and their jobs. The EAFN is stronger in this sense as it is fully conscience of and knowledgeable about the principles that should be followed to create a genuine alternative.

The third component, place, is the main difference between AFN. PAFN provided for 4 urban food nodes, with around 20-25 stands each, distributed over 4 municipalities along the coast and river. On the contrary, UAFN are urban points or retail spaces concentrated within the city centre. Thus, it follows that each AFN is oriented to a different public. The former supply fresh food to metropolitan citizens; the latter, supply fresh and healthy products to urban citizens (Figure 1). Additionally, the PAFN and UAFN geographical foodsheds have different scales (Figures 2 and 3). While the municipalities supplying food to PAFN belong to the CMA or to the first ring, the UAFN is supplied by the entire regional area. Municipalities from along the coast, from the CMA, from the first and second ring, and from the Andes mountain range provide products to their urban points, avoiding the more agroindustrially-oriented Central Valley.

In conclusion, both AFN complement each other in the Concepción Metropolitan Area and the Biobío Region. One provides a renovated base for enhancing the entrenchment of peasant traditions and farmland. The other generates new food spaces to value peasant and agro-ecological practices. Both offer an alternative to the traditional food systems by prioritising local and small-scale production, and healthy and seasonal products. Their principles are based in agroecology and a solidarity economy, but the driving force is democratising consumption and healthy food. The greatest contribution of these AFN is the building of networks and spaces that provide accessibility to alternatives through the organisation of and cooperation among peasants and producers. The proximity and the complementation between urban and rural elements makes it possible to enhance the relationship between city and countryside and bring it closer into an agro-urban paradigm (Yacamán, 2017).

This regenerative character is distinctive of the Global South, where old roots related to peasant cultures still survive. It is important to highlight the adopted alternativeness of the PEAFN, differentiated from the UAFN. The former did not arise as an alternative, but rather they associate themselves in order to face the threat of extinction. The latter emerge to offer alternatives to the industrial system. It is important to understand that the alternative definition is not “good” by itself. Some cases call themselves alternative but still reproduce the same conventional and industrial logic or profit maximisation. As a starting point, any alternative approach need to be critical of the dominant dynamics of food and present a substantiated proposal for political, social, environmental, economic

and ontological changes (Escobar, 2014). Unpacking the alternativeness of AFN is helpful to make visible the coherence and consistency of these networks.

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**II. BRIDGING GAPS BETWEEN RURAL  
(MULTIFUNCTIONAL?) ACTIVITIES**

**II. COMBLER LES ÉCARTS ENTRE LES ACTIVITÉS  
RURALES (MULTIFONCTIONNELLES ?)**

**II. TENDER PUENTES ENTRE LAS ACTIVIDADES  
RURALES (¿MULTIFUNCIONALES?)**

**II. COLMATAR LACUNAS ENTRE ATIVIDADES  
RURAIS (MULTIFUNCIONAIS?)**

*Ogimachi Settlement (Shirakawa Village, Gifu Prefecture, Japan, Asia).  
Source: Picture by Valerià Paül (2/8/2013).*





## *II. Bridging Gaps between Rural (Multifunctional?) Activities*

Multifunctionality is a central concept in rural studies across the world. Although originally somewhat restricted to the plurality of functions being provided by agriculture (Mather, Hill and Nijnik, 2006; Maier and Shobayashi, 2001), it has been increasingly applied to rural areas embracing all forms of rural activities in transition (Wilson, 2005; Holmes, 2006). Initially the term multifunctionality described the particular evolution experienced in the European Union (EU) context with regard to managing the gigantic Common Agricultural Policy over the last two decades. But analysis of this framework by Holmes (2006) in Australia, and in Brazil by Hoeffle (2014), shows how it has been transferred to heterogeneous contexts both in the Global South and the Global North, leading towards contrasting scenarios. Currently, multifunctionality is a construct widely applied to the notion of consumption and commodification of the rural space, but also to the development of tourism and leisure activities and the emergence of environmental protection concerns, devices and policies.

However, multifunctionality has received strong criticism by a wide range of commentators. In the EU, for instance, tourism has been seen as a panacea for rural development under the multifunctional approach, including a model of farm tourism (agri-tourism) where tourism is seen to co-exist and enrich the farm enterprise. Its success remains in question, given that there is a substitution of agricultural activities by tourism. In some cases this includes mass tourism which is not particularly sensitive to the uniqueness of rural environments. See for instance, contributions by Potočnik-Slavič and Schmitz (2013). Similar conclusions arise in Brazil with regard to the conflict between fishing and tourism in coastal rural communities (Hoeffle, 2014). As an overall reflection, Woods (2005) has questioned how multifunctionality is used as a smoke screen to conceal public policies which remain highly oriented to productivist farming in the EU.

This thematic session welcomes contributions around these questions:

- What are the connections between different activities in rural systems across the world under the multifunctionality umbrella? Are they compatible and/or do contradictions emerge?
- How can we bridge the gaps between the different rural activities, functions and values under the multifunctionality umbrella?
- What is the real contribution of tourism (in its various forms) to sustainable rural development?
- Is multifunctionality an academic, political and technocratic construction, or can it be observed and ratified in particular rural systems? What is its usefulness?

## *II. Comblent les écarts entre les activités rurales (multifonctionnelles ?)*

La multifonctionnalité est un concept central dans les études rurales réalisées de par le monde. Bien qu'à l'origine quelque peu limitée à la pluralité des fonctions assurées par l'agriculture (Mather, Hill et Nijnik, 2006 ; Maier et Shobayashi, 2001), elle est de plus en plus appliquée aux zones rurales qui englobent toutes les formes d'activités rurales en transition (Wilson, 2005 ; Holmes, 2006). Initialement, le terme de multifonctionnalité décrivait l'évolution particulière, dans le contexte de l'Union européenne (UE), de la gestion de la « gigantesque » politique agricole commune (PAC) durant les deux

dernières décennies. Cependant l'analyse de ce cadre par Holmes (2006) pour l'Australie, et par Hoefle (2014) pour le Brésil, montre comment ce concept a été transposé dans des contextes hétérogènes, tant pour le Sud que le Nord global, conduisant à des scénarios contrastés. Actuellement, la multifonctionnalité constitue un concept largement appliqué à la notion de consommation et de marchandisation de l'espace rural, mais aussi au développement du tourisme et des loisirs, ainsi qu'à l'émergence de préoccupations, dispositifs et politiques relevant du domaine de la protection de l'environnement.

Cependant, la multifonctionnalité a été vivement critiquée par un large éventail de commentateurs. Au sein de l'UE, par exemple, le tourisme a été considéré comme une panacée pour le développement rural dans le cadre de l'approche multifonctionnelle, induisant un modèle de tourisme agricole (agro-tourisme) où le tourisme est considéré comme pouvant coexister avec l'entreprise agricole, tout en l'enrichissant. Son succès reste discutable compte tenu de la substitution aux activités agricoles d'autres propres au tourisme. Dans certains cas, cela inclut un tourisme de masse qui n'est pas particulièrement sensible au caractère particulier des environnements ruraux (cf., par exemple, les contributions de Potočnik-Slavič et Schmitz, 2013). Des conclusions similaires se dégagent dans le cas du Brésil en ce qui concerne les conflits entre la pêche et le tourisme au sein des communautés rurales côtières (Hoefle, 2014). Comme réflexion globale, Woods (2005) s'est interrogé sur la manière dont la multifonctionnalité est utilisée comme un écran de fumée pour masquer des politiques publiques qui, au sein de l'UE, restent fortement orientées vers une agriculture productiviste.

Cette session thématique est ouverte aux contributions portant sur ces questions suivantes :

- Quels sont les liens entre les différentes activités des systèmes ruraux à travers le monde sous les auspices de la multifonctionnalité ? Sont-elles compatibles et/ou des contradictions émergent-elles ?
- Comment combler le fossé entre les différentes activités, fonctions et valeurs rurales sous les auspices de la multifonctionnalité ?
- Quelle est la contribution réelle du tourisme (sous ses diverses formes) au développement rural durable ?
- La multifonctionnalité constitue-t-elle une construction académique, politique et technocratique, ou peut-elle être observée et « ratifiée » dans des systèmes ruraux particuliers ? Et quelle est son utilité ?

#### *Tender puentes entre las actividades rurales (;multifuncionales?)*

La multifuncionalidad es un concepto central en los estudios rurales de todo el mundo. Aunque originalmente estaba en cierto modo restringida a la pluralidad de funciones aportadas por la agricultura (Mather, Hill y Nijnik, 2006; Maier y Shobayashi, 2001), ha ido aplicándose cada vez más a espacios rurales en los que se detectan distintos tipos de actividades rurales en transición (Wilson, 2005; Holmes, 2006). Inicialmente, el término multifuncionalidad describía la particular evolución experimentada en el contexto de la Unión Europea (UE) con relación a la gestión de la gigantesca Política Agrícola Común (PAC) en las últimas dos décadas. Sin embargo, el análisis de este marco por Holmes (2006) en Australia y por Hoefle (2014) en Brasil muestra cómo ha sido transferido a



contextos heterogéneos tanto en el sur como en el norte globales, lo que conduce a escenarios contrapuestos. En la actualidad, la multifuncionalidad es un constructo ampliamente aplicado a la noción de consumo y mercantilización del espacio rural, pero también al desarrollo del turismo y de actividades de ocio y a la aparición de preocupaciones, instrumentos y políticas ambientales.

Sin embargo, la multifuncionalidad ha recibido fuertes críticas por un amplio abanico de autores. En la UE, por ejemplo, el turismo ha sido visto como la panacea para el desarrollo rural bajo el enfoque multifuncional, lo que incluye un modelo de agroturismo donde el turismo habría de coexistir con y enriquecer a la empresa agraria. Pero su éxito está cuestionado, dado que se produce la sustitución de las actividades agrarias por las turísticas. En algunos casos se puede hablar de turismo de masas, que no es precisamente sensible a la singularidad de los espacios rurales. Véanse, por ejemplo, las contribuciones de Potočnik-Slavič y Schmitz (2013). Surgen conclusiones similares en Brasil con respecto al conflicto entre pesca y turismo en comunidades rurales costeras (Hoeffe, 2014). A modo de reflexión general, Woods (2005) ha cuestionado cómo se utiliza la multifuncionalidad en tanto que cortina de humo para encubrir políticas públicas que permanecen altamente vinculadas a la agricultura productivista en la UE.

Esta sesión temática acoge con especial interés contribuciones sobre las siguientes cuestiones:

- ¿Cuáles son las conexiones entre las diferentes actividades en los sistemas rurales alrededor del mundo bajo el paraguas de la multifuncionalidad? ¿Son compatibles y/o emergen contradicciones?
- ¿Cómo podemos tender puentes entre las diferentes actividades, funciones y valores rurales bajo el paraguas de la multifuncionalidad?
- ¿Cuál es la contribución real del turismo (en sus distintas modalidades) al desarrollo rural sustentable?
- ¿Es la multifuncionalidad una construcción académica, política y tecnocrática, o puede ser observada y ratificada en sistemas rurales particulares? ¿Cuál es su utilidad?

#### *Colmatar lacunas entre atividades rurais (multifuncionais?)*

A multifuncionalidade é um conceito central nos estudos rurais de todo o Mundo. Ainda que originalmente estivesse de certa forma restringida à pluralidade de funções provenientes da agricultura (Mather, Hill e Nijnik, 2006; Maier e Shobayashi, 2001), foi sendo aplicada cada vez mais a espaços rurais nos quais se identificam distintos tipos de atividades rurais em transição (Wilson, 2005; Holmes, 2006). Inicialmente, o termo multifuncionalidade descrevia a particular evolução vivida no contexto da União Europeia (UE) em relação à gestão da gigantesca Política Agrícola Comum (PAC) nas últimas duas décadas. Contudo, a análise deste panorama feita por Holmes (2006) na Austrália e por Hoeffe (2014) no Brasil mostra como se foram transferindo contextos heterogéneos tanto no Sul como no Norte Global, o que conduz a cenários contrapostos. Atualmente, a multifuncionalidade é uma construção amplamente aplicada à noção de consumo e mercantilização do espaço rural, mas também do desenvolvimento do turismo e de atividades de lazer e à aparição de preocupações, instrumentos e políticas ambientais.

Contudo, a multifuncionalidade recebeu fortes críticas por parte de um amplo conjunto de autores. Na UE, por exemplo, o turismo foi considerado a panaceia para o desenvolvimento rural a partir da abordagem multifuncional, o que inclui um modelo de agroturismo onde o turismo teria de coexistir e enriquecer a empresa agrária. Contudo o seu sucesso é questionável, dado que se produz a substituição das atividades agrárias pelas turísticas. Em alguns casos pode-se até falar de turismo de massas, que não é propriamente sensível à singularidades dos espaços rurais. Vejam-se, por exemplo, as contribuições de Potočnik-Slavič e Schmitz (2013). Surgem conclusões semelhantes no Brasil relativamente ao conflito entre pesca e turismo nas comunidades rurais costeiras (Hoeffe, 2014). A título de reflexão geral, Woods (2005) questionou como a utilização da multifuncionalidade como cortina de fumo para encobrir políticas públicas que permanecem altamente vinculadas à agricultura produtivista da UE.

Esta sessão temática acolhe com especial interesse as contribuições sobre as seguintes questões:

- Quais são as conexões entre as diferentes atividades nos sistemas rurais à volta do Mundo inseridas no conceito de multifuncionalidade? São compatíveis e/ou fazem emergir contradições?
- Como podemos colmatar as lacunas existentes entre as diferentes atividades, funções e valores rurais dentro do conceito de multifuncionalidade?
- Qual é a contribuição real do turismo (nas suas distintas modalidades) para o desenvolvimento rural sustentável?
- É a multifuncionalidade uma construção académica, política e tecnocrática, ou pode ser observada e ratificada em sistemas rurais particulares? Qual é a sua utilidade?

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## 6. Making the Case for a Heritage of Innovation: Could World Heritage Listing Facilitate Sustainable Rural Adaptation to Climate Change?

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### 1. Introduction

The adaptation of agricultural systems to rapidly changing environmental conditions remains one of humanity's greatest challenges. Learning from places that are successfully adapting to change will need to be promoted globally. The Mt Lofty Ranges is a mixed-use agrarian landscape adjacent to the city of Adelaide, with high value viticulture, horticulture and livestock grazing, which is implementing a significant range of initiatives to adapt to climate change. Such regions with complex, knowledge-intensive farming practices have many components that can be adjusted to increase systemic resilience through multifunctional pathways (Bardsley, 2003; Holmes, 2006; Paül and Haslam McKenzie, 2013; Koochafkan and Altieri, 2017). We ask the question whether the climate change adaptation underway in the rural landscapes of the Mt Lofty Ranges, South Australia is, by enabling authentic contemporary relationships between the cultural landscape and regional resilience, representing an important example of intangible world heritage, and whether such regions should be promoted through United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage listing.

### 2. Theoretical Insights: World Heritage and Adaptation to Climate Change Risk

To be included on the UNESCO World Heritage list of sites, a place must be of outstanding universal value and meet at least one out of ten selection criteria. Criteria V states it must be “an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change” (UNESCO, 2017). While a number of World Heritage regions exploit the first element of Criteria V, the final phrase relating to responses to change is utilised infrequently. Most examples of use of that second element are associated with long-term evolutionary adaptation to environmental change within a historical context, rather than attempts to manage immediate, contemporary threats. For example, the Cultural Landscape of the Serra de Tramuntana in Spain is listed partly because the rural settlement “bears significant witness to human adaptation to difficult environmental conditions, which has ingeniously made a region with scarce resources, both in term of land and water, suitable for farming and living” (UNESCO, 2017). Similarly, the description of the Kujataa Greenland: Norse and Inuit Farming at the Edge of the Ice Cap, notes:

“Although marginal for farming, the relatively mild climate of Kujataa has allowed the development of settlements based on farming and hunting during two major historical periods (including the present period), resulting in a distinctive and vulnerable cultural landscape.” While the historical evolutionary elements of cultural landscapes are clearly important heritage, it does raise the question whether heritage that assists adaptation to contemporary threats should also be included. One site where current stressors are highlighted is the Lavaux, Vineyard Terraces in Switzerland, where “vulnerability in the face of fast-growing urban settlements has prompted protection measures strongly supported by local communities.” In that case there is a concern that tourism has increased with World Heritage listing, but mechanisms to link financial benefits back to local communities are weak, and the place is free to be experienced by tourists without necessarily compensating farmers for their landscape management. The lack of direct links between World Heritage criteria and contemporary threats to biocultural landscapes raises questions for UNESCO as they aim to ensure that the concept of heritage protection remains vital in an emerging Anthropocene (Steffen et al., 2015; Caust and Vecco, 2017).

Many World Heritage sites are coming under pressure. Some sites, such as Venice and its Lagoon in Italy or the West Norwegian Fjords — Geirangerfjord and Nærøyfjord, could be seen as victims of their own success as tourists diminish local qualities either through over-crowding or pollution. Other cultural sites such as Portovenere, Cinque Terre, and the Islands (Palmaria, Tino and Tinetto) in Italy or the Rice Terraces of the Philippine Cordilleras are coming under threat because the terraced agrarian landscapes are difficult to sustain given emergent tourism economies and alternative employment opportunities. While those risks are challenging some specific sites, global climate change risk may well be universal and inexorable. Some Physical World Heritage sites are clearly at risk from climate change, such as the Great Barrier Reef in Australia that is threatened by rising sea temperatures and ocean acidification, or the Swiss Alps Jungfrau-Aletsch, due to melting of its key landscape assets. While much of the learning from such sites will draw from monitoring and managing physical and ecological change, by definition, cultural sites have the added advantage of having strong and ongoing anthropological inputs into site management which could guide sustainable adaptation to the changing conditions.

There is increasing UNESCO concern relating to the impact of climate change on heritage sites. As a result, Barthel-Bouchier (2016: 181) notes a growing tension between those who believe “conservation should be limited to its traditional tasks such as documentation, maintenance, risk assessment, rehabilitation, and restoration, and others who believe the field should assume broader responsibilities bordering on ‘social engineering’”. Climate change adaptation is going to be ongoing and an iterative process where people and places are constantly learning to improve their approaches and associated technologies and systems (Bardsley and Bardsley, 2007; Bardsley and Rogers, 2011). Through the example of the agrarian landscape of the Mt Lofty Ranges in South Australia, we examine whether World Heritage sites must increasingly become places of both autonomous and planned climate change adaptation learning and experimentation to remain authentic and integral to global heritage.

### 3. *Methodology: An Approach to Analysing Change and Adaptation in the Mt Lofty Ranges*

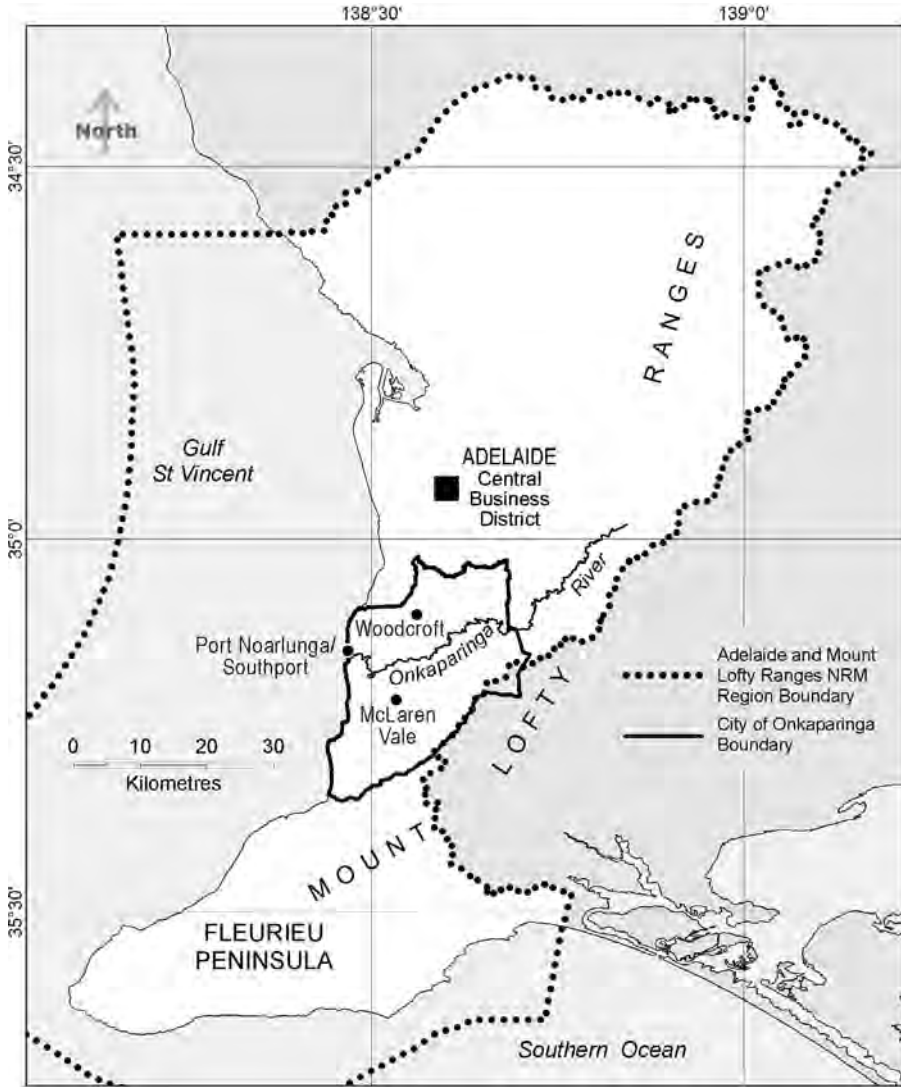
The Mediterranean climatic regions of the globe are projected to warm significantly and dry more quickly than other regions (Stocker et al., 2014). That is true for the Mt Lofty Ranges, where modelled projections suggest substantial future regional warming and drying (Hope et al., 2015). While the warming trend is already evident, rainfall, particularly in the important spring and autumn seasons has become more variable, rather than declining in absolute terms (BOM, 2017). Our initial regional vulnerability analysis of the natural resources of the Mt Lofty Ranges to climate change suggests that local agro-ecosystems are both highly exposed and sensitive to projected change (Bardsley, 2006). We also undertook a series of more detailed studies of impacts on biodiversity (eg. Crossman et al., 2008); bushfire risk (Bardsley et al., 2018); horticulture (eg. Houston and Bardsley, in review) and viticulture (Lereboullet et al., 2013), and noted potential adaptation planning interventions. Importantly, the region has responded with policy to guide sustainable development practices that will reduce sensitivities to change. A number of adaptation responses involve conventional technological interventions, sea-water desalination plant near Port Noarlunga to reduce reliance on water resources from local rainfall and the Murray-Darling Basin (Figure 1). Beyond such technological responses however, the region is drawing from its heritage of innovation to follow unique pathways to enable systemic resilience. that, the region is drawing from its heritage of innovation to follow unique pathways to enable systemic resilience. This paper will outline the key elements of that transformation, with a focus on the McLaren Vale, one of the key wine production areas to the south of Adelaide in the City of Onkaparinga (Figure 1).

Quotes to support the discussion are drawn from a series of walk-and-talk interviews with 17 McLaren Vale farmers in 2015, who outline a range of unique local mechanisms they have exploited to guide adaptation at individual farm and local scales (Bardsley et al., 2017). The farmer respondents were purposefully selected as identified leaders within the McLaren Vale community, because they are implementing alternative, multifunctional development approaches, including exploiting organic and biodynamic production approaches, to adapt to climate change. Their responses suggest a sophisticated regional ecological understanding, facilitated by their life-experiences, learning networks and relationships with governance, research and marketing organisations.

### 4. *Results and Discussion (i): Farm Level Adaptation*

Farmers are adapting their agro-ecosystems to manage climate change, with 14 of the 17 farmers interviewed citing it as a major risk. They have already accepted considerable constraints on production based on water, land and biodiversity regulations to guide sustainable management of the region, but largely without compensation. To manage those constraints, vignerons have changed to highly efficient irrigation and pruning/mulching practices, and they are prioritising quality, promoting vine heritage and local terroir to generate greater returns from restricted volumes. A diversity of biological resources, or agrobiodiversity, is also being exploited to generate resilience. Vignerons are diversifying their varietal choices to manage extreme weather events, variable seasons, and especially the timing of harvests (Wine Australia, 2015). The openness to changes in systemic

Figure 1. The Adelaide-Mt Lofty Ranges Natural Resources Management Region, indicating the site of the McLaren Vale. Source: Bardsley and Bardsley (2007: 331).



diversity is part of a long traditional of understanding and responding to new global demands and trends.

We are doing some experimenting with planting a few different varieties that are from more the Spanish or Italian regions, things that seem to be more suited to warmer climates but generally the choice of placement isn't linked to landscape. Aglianico, Sagrantino, Sangiovese, Nero D'Avola, Touriga, they are the main ones, and the main ones other people are experimenting with around the region as well. They will hopefully

tolerate warmer, drier conditions, and when you are harvesting and you only have a limited capacity at one time, so if all the Shiraz is ripe in one week, it puts on more pressure to process everything, so having a bit of balance in that helps the production side of that (Farmer 15).

Rather than a singular reliance on wine grapes, vigneronns are also buffering their incomes with a greater range of crops, especially olives and other small-scale horticulture, and are making greater use of native biodiversity within their local agro-ecosystems.

With the diversity of crops we have total control of what we sell at the markets, we don't have to offload at cheap prices because it is going to go off before we sell it (Farmer 17).

To me it's integrating farming with our native landscape that is the most important thing I have tried to make a point of, because the old concept of just clearing the land and doing away with all the native landscape is wrong (Farmer 9).

We've got a great working relationship with the Natural Resource Management Board for six or seven years now. We are just trying to create wildlife corridors throughout the property, more biodiversity — getting the bees and getting the insects and getting the birds (Farmer 13).

Apart from exploiting biodiversity on their properties, producers are also diversifying spatially, generating blended wines from multiple vineyards in different climate zones. Importantly, the farming community is accustomed to change, such that it is a normal part of their intangible cultural heritage to be constantly learning and applying new knowledge to develop innovative responses to external drivers. That cultural heritage of innovation is facilitating effective adaptation choices at the farm-level, but is also guiding cooperative approaches that are generating resilience (Bardsley et al., 2017). While the emerging agricultural multifunctionality is enabling authentic systemic relationships with environmental complexity, unique cooperative pathways have also evolved from the region's particular heritage to facilitate the development of an adaptation cluster.

##### 5. *Results and Discussion (ii): Regional Adaptation*

There is already a strong relationship between the cultural heritage of the McLaren Vale and local development. Many examples exist of authentic tourism opportunities to experience and understand the agricultural systems in the place, from single family wine producers, cellar doors and restaurants, to farmers' markets and guided tours through complex productive/conservation landscapes (Figure 2).

The community have invested in and lobbied for an extensive recycled water scheme and region-wide protected area legislation that constraints urban development in the region (Bardsley, 2015). Vigneronns have also worked together to generate a greater emphasis on direct marketing, cellar doors, restaurants to broaden the local tourism and recreation economy. To enable those changes, complex cooperative arrangements have developed between the community, producers, and marketing, tourism and government organisations. The successful cooperative arrangements extend from an explicit culture of helping neighbours and friends through to more formal marketing and community organisations such as the McLaren Vale Grape, Wine and Tourism Association; the Willunga Farmers Market; Friends of Willunga; the McLaren Vale Geographical Indication;

*Figure 2. An example of the rural aesthetic of the McLaren Vale, South Australia. Source: Picture by the author (7/7/2011).*



the Scarce Earth brand; and Sustainable Australia Winegrowing certification (Fielke and Bardsley, 2013; MVGWTA, 2017). A World Heritage classification would add to these highly developed cooperative processes and would reward local producers further for sustainable production.

The entire agricultural landscape could be seen as a unique result of historical co-evolutionary processes and knowledge intensive farming practices. The McLaren Vale landscape itself is partly representative of the 1820's Wakefield Plan of systemic colonisation that led to a highly stratified settlement pattern (Williams, 1974). The resulting colonial agrarian landscape has evolved over time with specific local landscape features and the liberal social development processes. In other words, the decisions that individuals or associations of landholders have made has generated a distinctive regional landscape pattern linking agriculture, water-courses and native vegetation, and that landscape has significant heritage and aesthetic values (Figure 2). That evolving landscape, and the associated exploitation of biodiversity is helping to guide unique individual and planned cooperative climate change adaptation pathways.



## 6. Final Discussion and Conclusion

Land use planning mechanisms can explicitly and implicitly support adaptation to risk within vital agroecosystems by defining spaces of experimentation (Bardsley and Pech, 2012). The authentic biocultural diversity that exists in a region can be linked to methods of supporting farmers, their activities and the community (Rotherham, 2015). Yet in this case, the landscape heritage is not a strict continuity of the same landforms, ecosystems, species or systems, but rather a physical representation of the heritage of innovative responses to internal and external drivers of change. World Heritage listing under Criteria V classification could be tied to the authentic historical and contemporary approaches to mitigating environmental risk associated with that cultural heritage, including individual risk responses; community organisation and collective actions with governance support. By recognising the explicit links between heritage and opportunities for effective climate change adaptation, UNESCO could promote individual autonomous and regional adaptation experimentation while also expanding its relevance at the frontier of environmental policy.

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## **7. Penser la multifonctionnalité comme facteur de résilience des systèmes ruraux en Afrique : exemple de la moyenne vallée du Sénégal**

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### *1. Introduction*

Les systèmes ruraux sahéliens ont la particularité d'être adaptés à un fonctionnement hydro-climatique où la variabilité des précipitations est importante en particulier depuis la péjoration climatique des années 1970 (Brooks, 2004). Les systèmes ruraux se sont caractérisés par l'usage complémentaire d'unités agro-écologiques ainsi que la coexistence d'activités qui se combinent : ils sont ainsi des systèmes fortement multifonctionnels (Wilson, 2008a). Cependant, jusque dans les années 1980, les systèmes ruraux africains ont été fortement orientés par des politiques nationales interventionnistes et productivistes, avant de subir la libéralisation économique de la décennie 1990, conduisant à marginaliser l'agriculture familiale et à réorganiser les systèmes ruraux (Benoit-Cattin, 2007).

L'article analyse le cas de la moyenne vallée du fleuve Sénégal (MVFS), vaste zone humide alimentée par le fleuve et située en climat sahélien. Cette caractéristique en fait une zone de potentialités hydro-agricoles dont les politiques de développement tentent d'en faire le grenier à riz de la région depuis les années 1960, appuyées par la création de barrages pour sécuriser et réguler les débits du fleuve. Cette position a été accentuée par la libéralisation économique des années 1990. Pourtant, les objectifs de développement d'un système agricole monofonctionnel basé sur la riziculture sont loin d'être atteints. Les surfaces irriguées aménagées sont moins nombreuses que prévues, 95 000 ha (FAO, 2015) au lieu de 375 000 ha (données SAED), et l'agriculture irriguée de la vallée du Sénégal est particulièrement connue pour ses problèmes (Seck, Lericollais et Magrin, 2009). Le système rural n'est pas figé et sa trajectoire s'adapte aux changements des conditions hydro-climatiques et socio-économiques tout en intégrant des enjeux nouveaux (préférences alimentaires, démographie, démocratisation des études, téléphonie mobile). Les ménages ruraux suivent des objectifs, différents de ceux des politiques publiques productivistes, qui permettent la conservation d'une multifonctionnalité du système rural qui intègre les mutations sociales, économiques, écologiques et agricoles.

Un travail de terrain empirique réalisé sur plusieurs villages de la MVFS permet d'analyser les déterminants de la multifonctionnalité et l'importance de celle-ci dans les processus d'adaptation à l'origine de la résilience du système rural. Car, si le multi-usage des espaces et la diversité agricole de cette zone humide sont une réalité multiséculaire (Bouillier et Schmitz, 1987), les raisons de leur maintien restent difficiles à appréhender face aux théories classiques des trajectoires des systèmes ruraux, à savoir l'intensification agricole et l'expansion des surfaces. Comment la manière dont les activités rurales s'articulent permet de créer de la multifonctionnalité et influencer la résilience du système rural ?

## 2. Relations entre multifonctionnalité et résilience dans les systèmes ruraux sahéliens

La multifonctionnalité connaît une définition floue (Wilson, 2008a). Elle est d'abord l'idée que l'agriculture est une activité multi-objectifs qui produit une diversité de valeurs d'usages matérielles et immatérielles. Actuellement elle s'applique plutôt à l'étude des zones rurales et des formes d'activités qu'on y trouve (Wilson, 2008b). Dans les Suds, la multifonctionnalité n'a trouvé que peu d'écho, notamment par son aspect trop normatif (Losch, 2004). En effet, les systèmes ruraux y apparaissent comme déjà multifonctionnel car basés sur une agriculture familiale, de subsistance, avec des rendements faibles et la maintenance de systèmes agro-écologiques diversifiés (Wilson, 2008b). L'utilisabilité du concept dans les PED est ainsi discutable, notamment car il apparaît comme une idéalisation d'une vision naturaliste de la ruralité dans le cadre des politiques dites « *Green Box* » (Hollander, 2007).

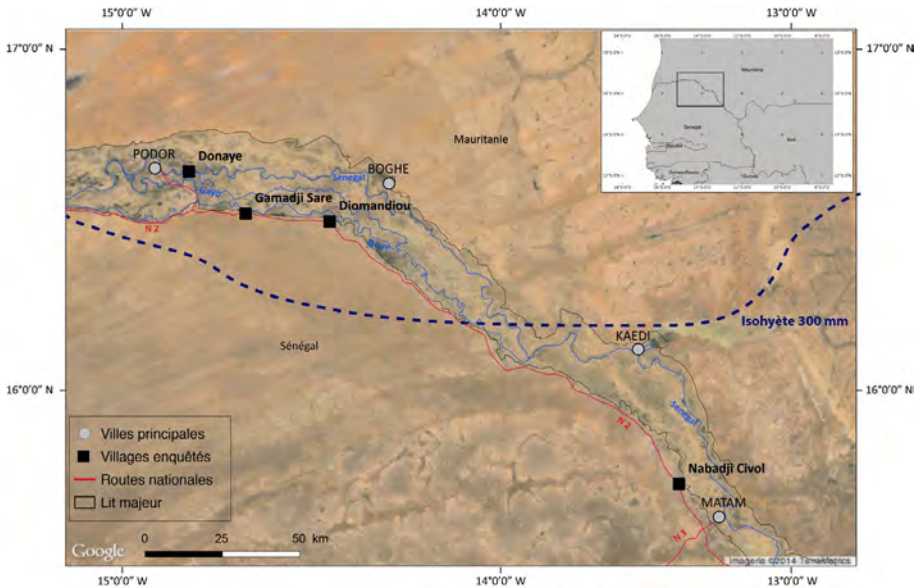
Toutefois, l'usage du concept de multifonctionnalité peut servir à comprendre l'influence des politiques agricoles productivistes sur la réorganisation et les trajectoires des systèmes ruraux (Wilson, 2008a). La multifonctionnalité est, en effet, affectée (négativement) par les pressions économiques visant à augmenter la taille des exploitations et détruire les systèmes mixtes, par l'augmentation de la population, l'accès à de nouvelles technologies et la mise en réseau des territoires par la globalisation (Losch, 2004 ; Wilson, 2008a). Dans les pays en développement, la multifonctionnalité de l'agriculture trouve des déterminants communs avec les concepts de livelihood (Scoones, 1998) à travers les résultats qu'elle fournit pour les sociétés : bien et services agricoles ou non-agricoles, intégration sociale, héritage culturel ou encore valeur des paysages. En ce sens, la multifonctionnalité permet d'analyser la combinaison des activités comme un processus d'adaptation qui définit la résilience des systèmes ruraux, c'est-à-dire leur capacité à s'adapter et s'auto-organiser face aux changements (Nelson, Adger et Brown, 2007).

La résilience est une résultante des processus dynamiques d'évolution des systèmes ruraux lorsque les communautés sont capables de s'adapter avec succès aux changements et aux perturbations (Chaskin, 2008). Le rapprochement entre la multifonctionnalité et la résilience apparaît comme une opportunité pour l'applicabilité du concept dans les pays en développement (Chaskins, 2008 ; Wilson, 2008a), car elle se concentre sur l'étude des spécificités et des discontinuités géographiques ainsi que sur l'inséparabilité des sphères économiques, environnementales et sociales (Losch, 2004). Wilson (2008a) relie ainsi directement la « résilience forte » (Cutter et al., 2008) avec une « multifonctionnalité forte », les deux auteurs considérant qu'un système multifonctionnel ou résilient se caractérise par la diversité et l'équilibre des capitaux économiques, environnementaux et sociaux. Dans les communautés rurales sahéliennes, les savoirs locaux sont considérés comme des facteurs clés de la résilience des systèmes ruraux face aux perturbations (Berkes, Folke et Colding, 2000) et jouent un rôle dans le maintien d'une multifonctionnalité forte. Les systèmes ruraux africains sont caractérisés par une centralité de l'agriculture, mais également par le fait que la construction du « rural » ne soit pas le monopole des agriculteurs. Dans ce contexte, le concept de multifonctionnalité favorise la compréhension des relations agriculture-société. Il permet d'analyser comment l'articulation des activités, le multi-usage ou encore la multiplicité des acteurs sont des facteurs de résilience du système rural et participent au développement rural (van der Ploeg et al., 2000).

### 3. Considérations méthodologiques

La recherche se base sur une analyse de la multifonctionnalité dans un contexte de compréhension de la résilience à l'échelle des communautés locales. C'est en effet à cette échelle « que les actions et la pensée de la multifonctionnalité est généralement implémentée » (Wilson, 2010) et que s'expriment les processus de résilience (Cutter et al., 2008). Le terroir a servi d'unité spatiale d'analyse du système rural de la vallée du Sénégal. Sa définition correspondant ici à celle de Sautter et Péliissier (1964 : 57), « portion de territoire appropriée, aménagée et utilisée par le groupe qui y réside et en tire des moyens d'existence » montre que c'est à ce niveau que s'organisent les activités rurales. Quatre villages de la MVFS ont ainsi été étudiés entre 2012 et 2014 (Figure 1). Ces villages ont accès aux mêmes unités agro-écologiques de la plaine inondable du Sénégal, périmètres irrigués communautaires et privés, cuvettes et berges pour l'agriculture de décrue, fleuve pour la pêche et espaces pour l'élevage. À Nabadji Civol la situation est différente, puisque l'agriculture pluviale est possible selon les années, le poids de l'émigration y est plus fort, et les périmètres irrigués moins nombreux.

Figure 1. Carte de localisation des villages enquêtés et isohyète 300 mm (limite du climat sahélien). Sources : TRMM 3B42 (période 1998-2015), Google Earth, 2014.



Chacun des villages a fait l'objet de questionnaires auprès des ménages (40 enquêtes) et d'entretiens semi-directifs auprès d'informateurs clés des principales activités rurales (25 entretiens). Des données qualitatives et quantitatives ont ainsi été recueillies pour comprendre la trajectoire des terroirs, les stratégies des ménages et l'organisation des activités rurales.

#### 4. Résultats

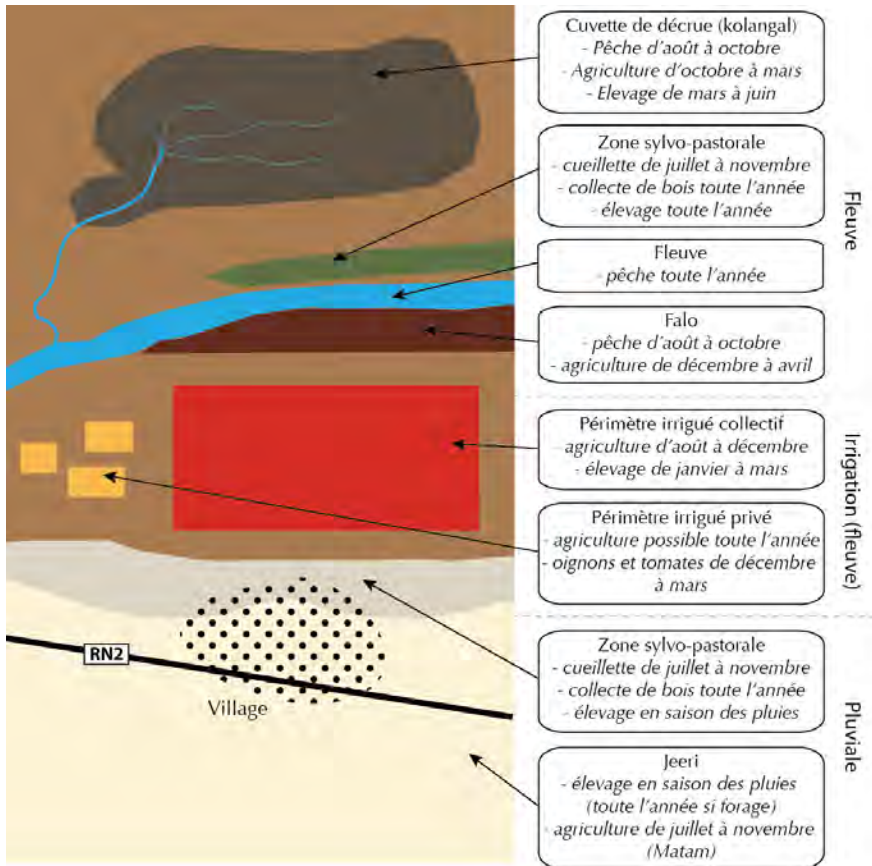
Dans la moyenne vallée du Sénégal, le système rural se réorganise depuis les années 1970 à travers l'accroissement de la pluriactivité dans les stratégies des ménages. Dans les villages enquêtés, 55 % des ménages déclarent l'agriculture comme leur activité principale et 18 % les activités salariées, les autres principales activités étant l'élevage, la pêche et l'artisanat. L'agriculture concerne ici plusieurs systèmes de production : l'agriculture de décrue, la riziculture dans les périmètres irrigués collectifs, le maraîchage irrigué et, selon les années, l'agriculture pluviale. Cette présence centrale de l'agriculture se retrouve dans la typologie des ménages, réalisée à partir d'une classification ascendante hiérarchique sur 15 variables quantitatives et qualitatives décrivant les capitaux et objectifs des ménages. La stratégie dominante des ménages ruraux est la pluriactivité, qui pratiquent presque tous l'agriculture pour leur approvisionnement en nourriture. Les ménages les plus pluriactifs tirent leurs revenus monétaires des activités extra-agricoles et une partie de leur alimentation dans les activités agricoles. À l'inverse, certains ménages bien insérés dans l'agriculture irriguée sont des agriculteurs aux stratégies marchandes et cultivent des productions agricoles vivrières et commerciales. Ces ménages valorisent l'agriculture à travers des stratégies productivistes d'intensification agricole et cultivent toutes les unités agro-écologiques, périmètres irrigués ou zone de décrue. Les autres types de ménages sont plus spécialisés dans des activités comme la pêche et l'élevage, mais dispose d'un accès à la terre pour leur alimentation. Enfin, les enquêtes de terrain ont montré la spécificité de la zone de Matam, marquée par le poids de l'émigration et des superficies aménagées pour l'irrigation plus faibles. Les ménages y sont peu inscrits dans l'agriculture, hormis la mise en culture des terres traditionnelles pour l'agriculture de décrue, et privilégient l'émigration et les activités extra-agricoles pratiquées au sein ou en dehors de l'exploitation familiale. Le travail de terrain a permis de voir les disparités dans la MVFS, puisque dans la zone de Matam le système rural est moins centré sur l'agriculture, tandis que dans la zone de Podor une partie des ménages cherchent à développer des activités agricoles marchandes. La pluriactivité n'est pas héritée du système social traditionnel, au contraire dans celui-ci les ménages étaient spécialisés entre castes d'autorités (agriculteurs, éleveurs, pêcheurs), de travailleurs (artisans) et de serviteurs. Elle est une réponse et une adaptation des ménages à la réorganisation du système rural affecté par les changements hydro-climatiques, le développement de l'irrigation, l'effacement de la hiérarchie sociale, l'accroissement démographique et l'émigration.

La pluriactivité s'inscrit dans le maintien d'une diversité des fonctions de l'espace rural, qui était voué à devenir monofonctionnel pour la riziculture. Les enquêtes montrent que les fonctions économiques à l'échelle des communautés villageoises sont remplies par les petites unités agricoles, les activités extra-agricoles et les revenus de l'émigration. L'élevage domestique à petite échelle (20 têtes maximum) est fréquent et assure une épargne sur pied aux ménages. Cette diversité permet un accès à une source de revenus à tous les ménages et de réduit les risques en cas de perte de production, de mort du cheptel, etc. Les fonctions alimentaires se concentrent en priorité dans les cultures céréalières (riz, sorgho et millet), où l'accès à tous type de ménages est possible. L'attachement à la terre est également important dans cette société où la valeur foncière n'est pas monétaire, mais traduit la place du lignage dans la hiérarchie sociale. Il explique aussi le maintien

d'activités sur les terres de décrue et leur confère une forte valeur culturelle, à l'inverse des parcelles dans les périmètres irrigués. De plus, les espaces de productions communautaires rassemblent une diversité de ménages et sont un lieu de brassage et de rencontre entre des personnes de villages ou de quartiers différents. Ils assurent une fonction sociale non-négligeable dans une société où l'agriculture est en voie d'individualisation (Cheikh Oumar Ba, Faye et Dieye, 2007).

Le multi-usage de certains espaces illustre également la haute multifonctionnalité du système rural de la MVFS. Base du système traditionnel, le multi-usage est conservé dans les unités agro-écologiques de la zone inondable. Il permet, comme c'est le cas dans de nombreuses zones humides dans le monde, de pratiquer successivement la pêche lors de la crue, l'agriculture suite au retrait des eaux et le pâturage lors de la saison sèche (Figure 2).

Figure 2. Multi-usage des unités agro-écologiques au sein d'un terroir de la moyenne vallée du Sénégal.



La diversité des activités, leur complémentarité, le multi-usage et la valeur culturelle des espaces permettent un équilibre de répartition des différents capitaux et un accès à tous les ménages à des sources monétaires ou alimentaire. Cette multifonctionnalité offre

des opportunités pour des activités modernes (chauffeur, boutiquier, réparateurs de motopompes, fournisseur de produits agricoles, etc.) et garantit la présence de populations, ce qui assure une résilience à long terme du système rural.

#### *4. Discussion*

Les résultats montrent que la multifonctionnalité est un des processus qui permet au système rural de s'adapter et s'organiser face aux changements socio-environnementaux. Toutefois, l'usage de ce concept doit être ici relativisé. L'évidente multifonctionnalité ne s'inscrit pas une optique similaire à celle rencontrée au Nord, où le concept a une orientation naturaliste, mais plutôt à des logiques de recherche de revenus dans un contexte d'utilisation fine de la diversité agro-écologique de l'espace. Le concept de multifonctionnalité est ici limité pour différencier certaines stratégies entre logique productivistes et multifonctionnelles. Les sous-produits des céréales, tiges et feuilles, autrefois laissés sur place, sont aujourd'hui valorisés pour l'élevage, ils sont soit vendus dans le village, soit gardés lorsque les ménages disposent d'un troupeau. La revente croissante de ces sous-produits est marqueur de l'individualisation et la marchandisation qui s'opère, mais est néanmoins une stratégie multifonctionnelle, puisqu'elle permet à l'élevage de bénéficier facilement de fourrage durant la saison sèche. De plus, la terre n'a pas une unique valeur marchande, mais dispose d'une valeur culturelle et d'héritage omniprésente dans les stratégies des ménages.

La MVFS connaît également une logique de développement du maraîchage irrigué permit par la diffusion des techniques de l'irrigation depuis la riziculture et la libéralisation du secteur agricole. Cette logique productiviste entraîne-t-elle une inévitable réduction de la multifonctionnalité ? Le constat est loin d'être aussi absolu, car elle est un objectif de développement pour les ménages ruraux, qui disposent d'une multiplication des opportunités agricoles qui s'intègrent dans la pluriactivité et contribue à la résilience du système rural, en augmentent la diversité des productions et les surfaces cultivées, tout en fournissant des revenus. Cette situation apparaît d'autant plus vraie que l'on sait que les ménages ne suivent pas, pour la plupart, une logique de développement économique, mais de sécurisation des productions pour l'alimentation et de maintien d'un héritage culturel, situation observée ailleurs en Afrique de l'Ouest (Rasmussen et Reenberg, 2015). Commercialisées essentiellement dans les marchés locaux, les productions maraîchères s'insèrent dans des logiques vivrières-marchandes qui ont une dépendance plus faible aux crédits et aux acteurs extérieurs. De plus, les jardins sur berge sont exploités par les femmes jouant un rôle non-négligeable dans leur autonomisation financière. Ces éléments améliorent la résilience des communautés rurales de la vallée. Enfin, les relations urbain-rural s'intensifient et questionnent le devenir de la multifonctionnalité du système rural, en particulier via l'augmentation du départ de la jeune génération attirée par les villes et les études universitaires et qui ne souhaite plus pratiquer l'agriculture.

#### *5. Conclusion*

Les résultats montrent qu'il est important que les objectifs diversifiés des ménages, la pluriactivité et le multi-usage des espaces, qui sont des facteurs de multifonctionnalité et de résilience, soient pris en considération dans la gestion des systèmes ruraux sahéliens.



En effet, la multifonctionnalité est une caractéristique intrinsèque du système rural de la MVFS qui contribue à assurer sa résilience en offrant des opportunités locales au sein d'une société très connectée vers l'extérieur à travers l'émigration. Face aux politiques publiques agricoles et de gestion de l'eau productivistes, la multifonctionnalité s'insère par le bas dans la réorganisation du système rural. En ce sens la multifonctionnalité apparaît comme un concept intéressant pour lutter contre l'hégémonie des logiques productivistes monofonctionnelles en œuvre dans les plaines inondables africaines. Néanmoins, elle trouve des limites à son application au Sud, où les logiques marchandes des ménages sont moins marquées.

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## **8. L'expérience culinaire durable comme grille d'analyse des démarches de valorisation touristique des ressources alimentaires. Quelle contribution au développement des territoires ruraux méditerranéens ?**

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### *1. Introduction*

La présente communication vise à présenter les premiers résultats du volet « recherche » d'un projet européen de coopération transnationale dédié au tourisme culinaire en Méditerranée. Au travers de l'élaboration du concept d'expérience culinaire durable, il s'agit de mettre en œuvre une méthode d'analyse capable d'interroger la diversité, puis la durabilité d'initiatives locales de valorisation. D'une part, se pose la question de leur capacité à différencier une offre touristique et à capter ainsi des demandes spécifiques dans un marché toujours plus concurrentiel. D'autre part, nous cherchons à comprendre dans quelle mesure les systèmes d'acteurs — publics et privés — adossés à ces initiatives sont à même de s'appuyer sur un patrimoine alimentaire désormais reconnu par l'UNESCO pour s'inscrire dans des dynamiques multifonctionnelles de construction de ressources et de développement de territoires ruraux considérés comme fragiles.

Ce travail s'inscrit dans le cadre du projet MEDFEST (« *Culinary heritage experiences: how to create sustainable tourist destinations?* »), projet qui a pour objectif d'élaborer une stratégie de tourisme durable fondée sur la mise en valeur de son patrimoine alimentaire et culinaire. D'une durée de 3 ans (2016-2019), le projet fédère 8 partenaires et s'intéresse principalement aux territoires ruraux méditerranéens localisés en marge des zones de tourisme de masse (<https://medfest.interreg-med.eu/>). Les partenaires agissent dans le champ de la recherche (ZRC SAZU en Slovénie ; Université de Barcelone ; École d'Ingénieurs

de PURPAN), du développement rural (Association de Développement Rural d'Ombrie en Italie ; Association In Loco au Portugal ; Agence pour le Développement Rural d'Istrie en Croatie ; Réseau thématique Troodos à Chypre) et socioprofessionnel (Chambre de Commerce et d'Industrie d'Héraklion en Grèce).

## *2. Considérations théoriques*

Envisagé comme une action de valorisation des ressources alimentaires et/ou culinaires — matérielles ou immatérielles — d'un territoire rural donné, le concept d'expérience culinaire durable vise à décrire des réalités extrêmement diverses (événement, lieu, réseau) mais qui sont toutes fondées sur une stratégie collective de mise en valeur touristique. A la croisée de la recherche et de l'action, ce concept résulte d'une construction pluridisciplinaire qui mobilise un concept issu des sciences du marketing et de l'ingénierie touristique pour mettre en scène des ressources spécifiques relevant de la Sociologie et de l'Anthropologie de l'Alimentation, ceci dans une perspective de développement, champ traditionnel de la Géographie Rurale et de l'Économie Territoriale.

Né au début des années 2000, le marketing expérientiel s'est déployé dans un ensemble de secteurs (alimentation, tourisme...) afin de répondre à de nouvelles attentes en matière de consommation (Richards, 2012). Défini comme l'instauration d'un environnement fondé sur une théâtralisation accrue de l'offre susceptible d'augmenter la probabilité d'achat (Lemoine, 2004), son principe de base réside dans l'immersion des touristes / des consommateurs dans une réalité perçue comme authentique, afin de générer des sentiments allant au-delà de la simple satisfaction. Cette approche requiert de ce fait une plus forte implication des touristes / consommateurs, qui deviennent des acteurs à part entière de leur expérience (Richards, 2002). Dans le secteur touristique notamment, l'objectif est de favoriser une rencontre entre le visiteur et la réalité visitée (lieu, produit alimentaire, population locale...) au travers de la stimulation des sens et de la recherche d'émotions (Lemoine, 2015). Au final, le concept d'expérience apparaît désormais comme incontournable dans les stratégies marketing mises en œuvre par les professionnels du tourisme en constante recherche de différenciation sur les marchés. De plus en plus de politiques touristiques nationales (en particulier dans le nord de l'Europe) relèvent ainsi du marketing expérientiel (Mossberg, 2007 ; Ljunggren, 2012).

Appliqué aux ressources culinaires, le concept que nous proposons ici fait également référence à l'engouement des consommateurs pour les patrimoines alimentaires locaux (produits, recettes, savoir-faire...), engouement qui se renforce en réaction à la banalisation des habitudes alimentaires (Poulain, 2002 ; Contreras Hernández et Gracia Arnáiz, 2005). Ces patrimoines font l'objet d'un processus complexe d'appropriation / transmission par un groupe d'acteurs, notamment dans l'optique de leur valorisation, processus qui se réalise au travers d'une interaction avec les « touristes-mangeurs », qui vont certes percevoir les qualités gustatives et organoleptiques des produits consommés, mais également leur valeur symbolique (Bessière et Tibère, 2011).

Ces processus de valorisation de ressources se caractérisent également par leur ancrage territorial. D'une part, au-delà des produits, ce sont les composantes mêmes du territoire qui sont mises en avant (culture, histoire, architecture, paysages...). D'autre part, les expériences analysées mettent en scène un large éventail d'acteurs et de groupes d'acteurs

(agriculteurs, professionnels du tourisme, autorités locales, associations, autres secteurs d'activités). Cette transversalité a deux conséquences principales :

- Elle positionne de fait le concept d'expérience culinaire durable dans le champ de l'Économie Territoriale et de l'analyse des dynamiques de développement (Courlet et Pecqueur, 2013). En cela, l'approche proposée s'envisage comme un outil d'analyse des jeux d'acteurs (publics et privés), des stratégies de valorisation de ressources spécifiques au travers de la mise en œuvre de gouvernances territoriales originales (Torre et Wallet, 2011) et des politiques publiques adossées à ces stratégies.
- En induisant un dialogue entre agriculture et tourisme, elle inscrit la réflexion dans le paradigme de la multifonctionnalité de l'agriculture (Laurent et al., 2010) dans la mesure où une expérience culinaire est susceptible d'engendrer des bénéfices en termes de qualité des produits, de gestion des paysages ou de maintien du lien social.

C'est d'ailleurs principalement par le prisme de leur ancrage territorial que nous interrogeons le caractère durable des initiatives. Notre réflexion s'inscrit en effet dans un contexte spécifique : le monde méditerranéen. À la fois destination touristique majeure à l'échelle mondiale et réservoir de traditions culinaires, la Méditerranée constitue indéniablement un point focal du développement durable, que l'on considère la pression sur les ressources naturelles ou les impacts du changement climatique. La durabilité peut ainsi être envisagée selon plusieurs angles d'attaque. On pense notamment :

- Aux bénéfices territoriaux engendrés par les expériences, qu'ils soient de nature économique (valeur ajoutée, emploi), sociale (production de lien entre agriculteurs et touristes, échanges intergénérationnels) (Parra et Moolaert, 2011) ou environnementale (promotion d'un tourisme plus respectueux des ressources naturelles).
- Aux processus de préservation des traditions culinaires et gastronomiques et des modes de production qui ont façonné depuis des siècles les paysages méditerranéens. Ces processus renvoient à ce qui est considéré désormais comme le 4<sup>ème</sup> pilier du développement durable : la dimension culturelle (Jégou, 2007).

Au vu de ce qui précède, une expérience culinaire durable résulte de l'interaction entre 4 dimensions principales : des ressources alimentaires ou culinaires qui constituent le support de l'expérience, un lieu spécifique (au sens géographique, mais également social), un moment spécifique (temps du séjour, durée de la visite) et des touristes acteurs de l'expérience dans une démarche respectueuse. La Figure 1 synthétise cette interaction.

### 3. *Considérations méthodologiques*

Deux étapes principales structurent la démarche mise en œuvre. Dans un premier temps, la construction du concept d'expérience culinaire durable a été de pair avec l'élaboration d'une grille de lecture destinée à envisager de manière large la diversité des initiatives locales à l'œuvre dans les 8 pays méditerranéens partenaires du projet et à appréhender leur durabilité. Inspirée par des approches institutionnelles existantes (European Commission, 2016 ; Global Sustainable Tourism Council, 2013) puis enrichie par une

Figure 1. Le concept d'expérience culinaire durable – proposition de modélisation. Source : figure réalisée par les auteurs (2017).



revue de la littérature scientifique, cette grille a été organisée autour de 4 thématiques intégrant toutes un ou plusieurs volets relatifs à la durabilité :

- Le contenu de l'expérience (caractéristiques principales, positionnement).
- Son organisation et sa gouvernance (acteurs engagés, règles formelles et informelles, systèmes de certification).
- Son ancrage territorial (insertion dans le contexte local, synergies avec d'autres activités, types de ressources valorisées).
- Son insertion dans des politiques/stratégies locales ou régionales (politiques publiques, stratégies d'offre touristique...).

Elles-mêmes structurées en 10 critères puis en 36 indicateurs, ces thématiques ont permis de caractériser 94 initiatives dans 8 pays et de proposer une typologie suffisamment large pour embrasser cette diversité. Le traitement des données recueillies a été réalisé au travers d'une analyse statistique.

Dans un second temps, la démarche a consisté en un approfondissement de 2 ou 3 expériences par pays (18 au total) au travers d'une approche qualitative à dire d'acteurs menée à l'aide d'entretiens semi-directifs (entre 4 et 8 par expérience). L'objectif était d'une part de saisir le système d'acteurs adossé à l'expérience, et d'autre part d'identifier les forces, faiblesses et conditions de réussite de l'initiative considérée. Les entretiens ont été traités par le biais d'une analyse thématique et d'une analyse de contenu et ont donné lieu à la rédaction de notes de synthèses. Trois enjeux ont fait ici l'objet d'une attention particulière : les formes de gouvernance, l'articulation avec les politiques publiques et les stratégies de valorisation des ressources.

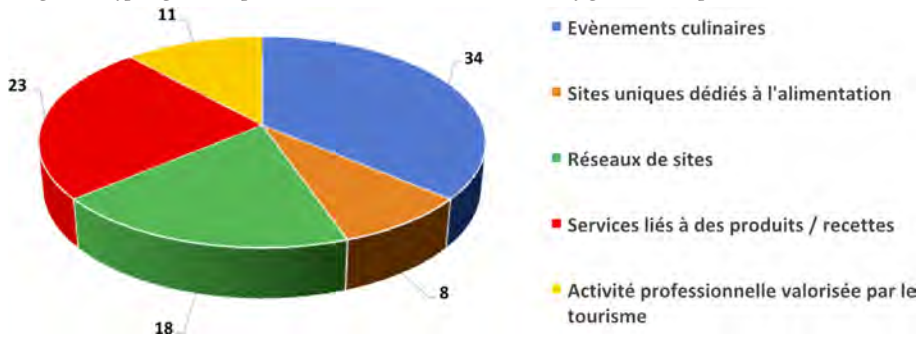
#### 4. Résultats

Un premier traitement des données recueillies auprès des 94 initiatives a d'ores et déjà permis de proposer d'une part une typologie et des éléments de profil des expériences considérées, et d'autre part de commencer à questionner leur durabilité.

Les expériences culinaires ont ainsi été classées en 5 principaux types, principalement en fonction de leur nature et de leur contenu. La Figure 2 fait apparaître leur répartition :

- Les évènements culinaires (salons, marchés, festivals), tels le festival de l'oignon de Cannara (Ombrie, Italie), la foire Sant Ermengol en Catalogne ou le festival de la Diète Méditerranéenne (Tavira, Portugal).
- Les sites uniques dédiés à l'alimentation (musées), comme le musée de l'huile d'olive d'Istrie (Croatie).
- Les réseaux de sites touristiques dédiés à l'alimentation, comme la Route du Casoulet de Castelnaudary (France) ou le Brkini Fruit Route Festival (Slovénie).
- Les services liés à des produits alimentaires ou des recettes (dégustations, cours de cuisine), comme le « Cretan Miracle Diet and Cuisine » (Grèce).
- Les activités professionnelles mises en valeur dans le cadre d'une démarche touristique (exploitations agricoles, entreprises agroalimentaires) : Monagri Grape Farm (Chypre) ou Itinéraires Paysans (Alpes de Haute-Provence, France).

Figure 2. Typologie des expériences culinaires durables. Source : figure réalisée par les auteurs (2017).



En termes de profil, les premières données collectées font apparaître un certain nombre de caractéristiques dominantes. Ainsi, les gouvernances territoriales sont structurées autour de trois types d'acteurs incontournables :

- Les autorités publiques locales (municipalités, régions), qui supportent les initiatives dans 75% des cas (subvention et/ou appui technique), et qui les intègrent naturellement dans leur politique de développement (69% des cas), que ces politiques soient uniquement touristiques ou plus globales.
- Les agriculteurs (individuels ou via des organisations professionnelles), qui sont présents dans 70% des expériences, soit en tant que simples fournisseurs, soit en tant qu'acteurs à part entière.
- La société civile (45%), par l'intermédiaire des communautés locales, d'associations ou d'individus, dont la présence constitue souvent une condition sine qua non de l'existence — parfois de la survie — des expériences culinaires.

Le caractère formalisé de l'expérience au travers d'un règlement intérieur ou d'une charte est une donnée relativement fréquente (52% des initiatives). Cette formalisation va souvent de pair avec la présence de procédures de certifications, qui concernent aussi bien :

- Les produits (principalement AOP, IGP ou bio), dans 62% des cas.

- Les activités, au travers de certifications visant à renforcer la durabilité de la prestation (*Eco Management Audit System* en Italie) ou sa professionnalisation (Tourisme Qualité France...).
- Les territoires, par le biais de certifications environnementales de type Natura 2000 (47% des cas) ou culturelles (UNESCO par exemple, 39% des cas).

Enfin, la durabilité des expériences culinaires représente un enjeu de premier plan, même si l'impact réel des expériences demeure parfois modeste ou indirect. En termes de gouvernance, les formes locales observées sont extrêmement diverses et au-delà des acteurs évoqués plus haut, elles fédèrent un large éventail d'intervenants : professionnels du tourisme, secteur artisanal, structures consulaires, organismes de R&D... Deux configurations se distinguent malgré tout :

- Une gouvernance à dominante publique, dans laquelle l'expérience est initiée puis gérée par une autorité locale ou régionale dans une logique « top-down » (*Benvinguts a Pagès*, Catalogne ; Route du Cassoulet de Castelnaudary, France).
- Une gouvernance à dominante privée, élaborée au départ par un acteur le plus souvent individuel dans une démarche *bottom-up* (cas des exploitations en démarche agri-touristique « *Belajevi* » en Slovénie ou « *Xatheri* » en Grèce).

Dans tous les cas, la très grande majorité des expériences culinaires observées font état d'une réelle propension à fédérer un collectif d'acteurs dans une démarche fondée sur des objectifs et des intérêts communs. La durabilité des initiatives passe donc par la capacité de dialogue territorial avec des secteurs aussi diversifiés que l'artisanat, l'éducation, l'art, le sport, la santé et le bien-être. Il est à noter que cette capacité peut s'éroder avec le temps et le changement de générations : ainsi, la diminution généralisée du nombre d'agriculteurs peut par exemple menacer la pérennité de nombreuses expériences fondées sur un savoir-faire spécifique de plus en plus difficile à transmettre.

##### 5. Discussion et conclusion

À travers un concept pluridisciplinaire et une démarche méthodologique coconstruite entre les partenaires du projet, la présente proposition synthétise les premiers résultats issus de l'observation d'un grand nombre d'initiatives méditerranéennes, en interrogeant notamment leur durabilité. Si l'analyse doit être encore approfondie, cette démarche constitue du point de vue du projet un préalable à la conception d'une première stratégie de mise en œuvre d'expérience culinaire qui sera testée dans un ensemble de territoires pilotes. Il apparaît toutefois possible d'affirmer qu'à ce stade, la très forte implication des agriculteurs dans les démarches touristiques (parfois initiateurs des expériences) renvoie indéniablement à une forme de multifonctionnalité. En outre, l'hypothèse d'une substitution de l'agriculture au profit du tourisme n'est pas vérifiée dans l'analyse réalisée. Au contraire, la mise en expérience de ressources alimentaires et culinaires semble plutôt favoriser le maintien de l'activité agricole.

L'articulation entre les systèmes d'acteurs en charge de ces expériences et les politiques publiques apparaît comme un élément d'analyse devant être approfondi. D'une part, se pose la question de la capacité des politiques à accompagner des démarches extrêmement diverses (et parfois de taille très modeste), et notamment à guider les pratiques des acteurs vers davantage de professionnalisme et de durabilité. D'autre part, les enjeux pour les



porteurs de projets résident à l'inverse dans un renforcement de leur visibilité, préalable indispensable à leur reconnaissance par les dispositifs institutionnels, dans un contexte où les moyens humains et financiers sont de plus en plus difficiles à mobiliser. Cette reconnaissance rend parfois nécessaire leur développement, afin d'atteindre une taille critique. Toutefois, il est important d'analyser en quoi cette condition de croissance peut parfois aller à l'encontre d'une certaine forme de durabilité, certaines expériences préférant en effet conserver un caractère intime et confidentiel. Ainsi, la pérennité de ces expériences passe notamment par le maintien de ces équilibres instables et par la construction de compromis pérennes entre les acteurs.

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## **9. Approaching Farming Resilience in the Rural Hinterland of Rio de Janeiro and Beyond: Methodological Pluralism in Fieldwork Research**

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### *1. Introduction*

Rural geographers have long focussed on farming adaptations to changing conditions. The reported fieldwork research in the rural hinterland of Rio de Janeiro enabled an iterative process of in-depth communication and feedback with respondents about specific questions concerning rural change, farming resilience, and globalisation in a rural context. During this full-time immersion in the study area, the researcher wrote descriptive, reflective and interpretive notes, and created sketches and formulated questions about the everyday geographies and the social spaces in the research setting. The fieldwork notes and insights may later be treated as textual objects to be coded, interpreted, and analysed.

This paper debates the methods used in the fieldwork. The study is an investigation of farming networks with a focus on what happens along these networks in the context of rural change in the era of globalisation. It sought to understand how resilient farming networks are built, maintained and break down and how we understand the dynamic, processual and contingent nature of relationships along a network. The methods were designed to capture the multidimensionality of the real-life experience of Rio's hinterland.

The purpose of the fieldwork was to understand the views and positions of a wide variety of actors. Understanding globalisation in a rural context and agriculture through "statistical analyses of never-visited locales, aggregate quantitative portrayals of regions, and direct field surveys" (McCarthy, 2002: 129) would not respond to the multidirectional and multidimensional nature of contemporary rural space. Therefore, the detailed data on the social dynamics of agriculture in the rural hinterland of Rio de Janeiro required fieldwork with case studies and ethnographic techniques, similar to approaches developed in political ecology and cultural studies (McCarthy, 2005; Robbins, 2012; Doolittle, 2015).

To an extent, the research intends to offer a perspective on rural geography in the era of globalisation. I have designed a method that allows for a socially constructed and process-oriented geography that recognises past configurations of farming systems while providing information on farmers' capacity to change conditions and relationships, especially by reconciling farmer agency and a range of driving forces experienced in the rural hinterland and beyond.

### *2. Farming Resilience in the Era of Globalisation: (Multi) Approaches Reveal the Multifunctionality of the Rural Hinterland*

This section explains what resilience theory is and how it can be used as a concept for understanding the link between rural change and farming community resilience and vulnerability in the global countryside. Specific focus is placed on how resilience theory can

help better understand global critical issues related to rural change, farming resilience and globalisation processes. It is evident that the increasing importance of resilience theory in the social sciences is linked to recent radical changes in conceptualisations of societal change associated with political ecology and cultural turn approaches (Wilson, 2012; Brown, 2016; Lendvay, 2016). Wilson's study (2010, 2012) on resilience and multifunctional agriculture examined place-based characteristics that contribute to weak or strong resilience, while also exploring the “flip-side” of resilience — vulnerability.

Resilience can thus both be an outcome, especially when linked to improved adaptive capacity of rural communities, or a process linked to dynamic changes over time associated with community learning and the willingness of communities to take responsibility and control of their rural development pathways (Wilson, 2010: 366).

Darnhofer (2010) examined farming as part of a set of systems across spatial scales and encompassing agroecological, economic and political-social domains. Rather than a focus on production and efficiency, she argued that farm sustainability is achieved through adaptability, learning, and change. Echoing the key themes within evolutionary economic geography, the authors suggested that in the case of the farming sector, resilience is more likely to emerge when farmers have the capacity to transform the farm, when farm production is attuned to the local ecological carrying capacity and when learning and innovation are targeted outcomes.

Farms play an important role in maintaining social cohesion, producing food, providing energy from renewable resources, offering recreational and health care services, and maintaining the cultural landscapes. At farm level, empirical studies have focussed mostly on the structures that enable flexibility, which is key to the ability of farms to adapt over time. Within the context of economic turbulences and ecological instability, the concept of resilience has gained prominence both in political rhetoric and in research. Darnhofer et al. (2016) built specifically on the concept of social-ecological resilience as it emphasises the interdependence of social and ecological dynamics — two key aspects of farming — and emphasises the need to adapt and change, rather than the ability to buffer shocks and return to “normal”.

*Table 1. Resilience theory: new set of ideas about development in this age of uncertainty and recurrent crises. Source: The author based on the references*

Brown (2016)	Resilience concepts can overturn orthodox approaches to international development that remain dominated by modernisation and a focus on economic growth, characterised by technocratic approaches.
Lendvay (2016)	Resilience in human geography should dissolve the theoretical dichotomy and treat both large-scale structures and agency of individuals on the common ontological framework.
Scott (2013)	Resilience thinking opens new perspectives to ‘re-frame’ rural studies debates: 1- it offers alternative analytical methods and insights for rural studies and 2- provides an alternative policy narrative for rural development.
Wilson (2012)	Explored the links between resilience and transition theory, how path dependencies affect resilience at community level, the impacts of globalisation on different community trajectories, and the importance of social memory for understanding constraints and opportunities for developing community resilience.

In summarising the above narrative (Table 1), resilience can help us understand and respond to the challenges of the contemporary age. As the concept of resilience has taken hold, these challenges are characterised by high uncertainty, globalised and interconnected systems, increasing disparities and limited choices. According to Brown (2016), resilience concepts can overturn orthodox approaches to international development that remain dominated by modernisation, aid dependency, and a focus on economic growth, and global environmental change, often characterised by technocratic approaches.

### 3. *The Case Study Area: The Rural Hinterland of Rio de Janeiro (Brazil)*

Global processes produce differences in farming systems and multifunctional agriculture in Brazil. Variation also occurs within regions, exemplified by rural-urban complexity as observed across the rural hinterland of Rio de Janeiro where land use, economic and environmental policies generate conflicts (Bicalho, 1992; Bicalho and Machado, 2013). As the metropolitan region expanded outward land prices increased, productive strategies changed, family members and workers left to work in non-agricultural sectors and farmland was lost to urban sprawl and nature reserves.

Against a linear view concerning external interferences in rural places, the research argues that rural communities possess resilience, which contributes to complex outcomes in metropolitan regions and their hinterland. Different types of knowledge, organisations, innovations and cross-scale linkages are part of this process in which rural actors are proactive in the face of change (Woods, 2007; Wilson, 2008, 2010; Darnhofer, 2010; Welsh, 2014). This is often made possible by the difference between rural processes present in Brazilian metropolitan regions and their hinterland in contrast to those encountered in essentially agricultural regions, distant from and less affected by large urban centres.

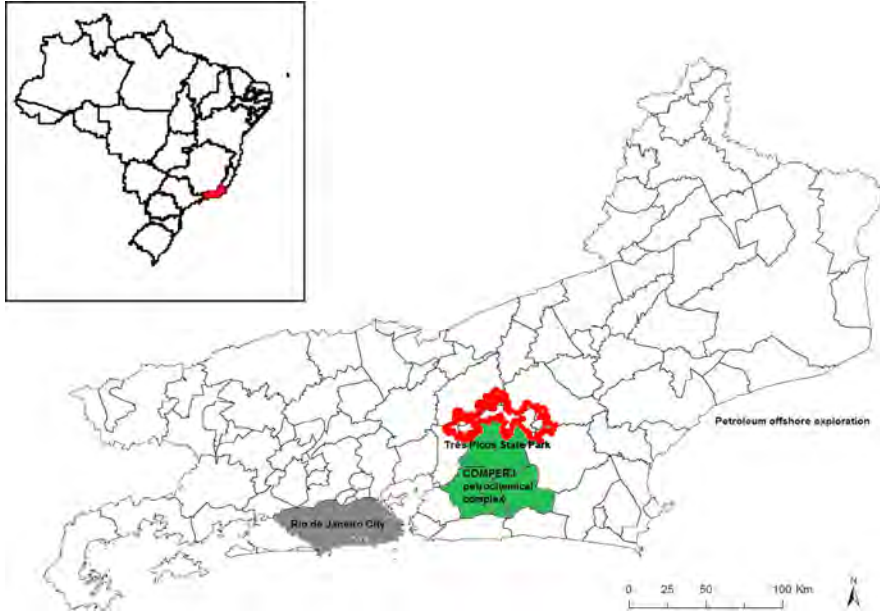
Rural dynamics in Rio's hinterland are characterised by increasing social polarisation and by fragmented patterns of land ownership, land-intensive productive systems and land use diversity, products with high aggregated value (often perishables), and by direct forms of marketing to consumers made possible by proximity to urban markets. The study highlights patterns and processes of farming resilience, whereby rural communities have adapted to new situations that have arisen in Rio's hinterland over the years.

The spatial context of these analyses and the location of this study were based on primary research undertaken in Eastern Rio's Hinterland (Figure 1). As a first step to grasp globalisation-related rural restructuring along the rural hinterland, the researcher travelled through the study area visiting stakeholders in public administration, small, medium-sized family farmers, residents, local business and estate and private projects, and observing and holding informal talks with a variety of people. Based on this first encounter, key persons for semi-structured interviews were identified and all observations and informal talks undertaken during the whole research process were noted in an extensive field diary that is included as primary material.

### 4. *Methodological Pluralism in Contemporary Rural Geography: Exploring Multi-Methods in Fieldwork Research*

This section begins with a review of the research design and approach explored in the fieldwork research, which involved qualitative methodologies, such as semi-structured

*Figure 1. Brazil, Rio de Janeiro State, Rio de Janeiro City and study area investigated in the rural hinterland. Source: D-maps edited by the author.*



interviews and ethnographic approaches. The data collection process enables an iterative process for in-depth communication and feedback with respondents about specific questions.

The objective was to identify changes in agriculture in the last decades, at various scales, through semi-structured interviews and ethnographic research with farmers and policy makers. During the interviews, farmers were asked how the establishment has changed in recent decades and what changes in agriculture may be associated with globalisation in a rural context (Figure 2). Reflecting on past experiences, farmers were asked about the attributes they identify as crucial to the adaptation of agriculture. The strategies identified, as well as the examples provided, have been analysed in the next steps of the research to assess how farming systems are related to the multiplicity of the processes of globalisation in a rural context and the resilience of agriculture in the rural hinterland.

Farmers are relevant actors in the investigation because they are mostly resilient. Several farms are transferred from one generation to another, sometimes for several decades. As such, farmers resist and survive despite economic and political, technological and social changes. Based on Berkes (2007) and Darnhofer (2010), the study identified four main factors that create resilient systems at farm level during fieldwork research:

- learning from changes and uncertainties;
- nurturing spatial diversity in its various forms;
- combining different types of knowledge; and
- learning and creating opportunities for social organisation and relational and multi-scalar links.

*Figure 2. Farmers and their associations in the hinterland of Rio de Janeiro were the main audiences for understanding rural change and farming resilience framework. Source: Picture by the author (11/2017).*



Semi-structured interviews were used as a tool to collect qualitative data. There are several rural stakeholder groups in Rio de Janeiro, including farmers, workers, local leaders, and policy makers. These actors are actively involved in the rural restructuring process. Therefore, semi-structured interviews were appropriate in that they allowed collecting several voices from different groups of actors. Meanwhile, farmers and their associations were the target audiences in monitoring information on rural change and the farming resilience framework in the context analysed.

Interviews and participatory observation were directed at the regional context of the rural hinterland within a process of diversification of agricultural crops and the adaptation of agriculture with specialisation in fruit growing. Some contacts had already been established during the author's master's thesis research. The return made it possible to deepen the observation of changes that have occurred in the last years and the adaptability of agriculture in the process of rural-urban interaction that intensifies in the rural localities of the Metropolitan Region of Rio de Janeiro and its rural hinterland. Conducting interviews with previously contacted rural actors has allowed access to information that may be addressed through a longitudinal approach, which helps explain changes in recent years and the resilience process beyond the framework observed during the period of fieldwork research.

Some contacts extended beyond the interview, with daily observation on certain farms (Figure 3). In addition to interviews and participatory observation, research activities were carried out with farmers, policy makers and the Emater-Rio (Technical Assistance and Rural Extension Company). During these activities the audience was divided into groups, each group developed reflections that explained the characteristics of agriculture in the locality, the changes in recent years and the challenges.

In addition, there was a general presentation on the reflections of the fieldwork, interviews and participatory observation carried out in the period of research. The presentation was addressed to farmers and public institutions involved in rural development, revealing the diversity of agriculture in the study area and the challenges of sustainability

in the context of globalisation. Photographs taken during the period of fieldwork were important in revealing and illustrating global critical issues in the everyday life of the locality, combining the research interests and the challenges of the rural community.

*Figure 3. Semi-structured interviews and ethnographic research with family farmers have been the main sources of data for the arguments of the study. Source: Picture by the author (11/2017).*



The findings suggest a rural area undergoing a process of change from its incorporation into the metropolitan dynamics. It is a geographical space that reflects challenges of sustainability and multifunctionality in a global era. Even in the face of external pressures resulting from the new position of the metropolitan area in the dynamics of global rural-urban interaction, rural actors have responded to restructuring through multidirectional trajectories. The complexity of the Metropolitan Region of Rio de Janeiro and its hinterland reveals diverse situations, both resilient actors and actors vulnerable to the process of rural change.

##### *5. Discussion and Conclusions: When a Rural Geographer Comes back from Fieldwork Research*

This paper concludes with a critical discussion of possible methodologies to assess farming resilience in the context of globalisation, highlighting multiple method approaches. For instance, research methods such as interviews, participant observation, and textual analysis are useful in documenting and analysing social structures or individual experiences and relationships.

The fieldwork involved a qualitative research methodology, which required immersion in the study area. The research uses three sources of data: semi-structured interviews with the parties involved in agriculture in the rural hinterland of Rio de Janeiro, as well as investigation of regional context, ethnographic research and secondary sources (statistical data and historical records). Using qualitative methods, contemporary rural studies provide broader theoretical frameworks and insights into the rural through in-depth studies, bottom-up models, and multidimensional approaches (Cloke, Marsden and Mooney, 2006).



The complexity of spatial restructuring over time in the rural hinterland of Rio de Janeiro has been presented to better understand rural change by going beyond the view of inert rural spaces subject to external linear global forces. For this reason, I have used a multidimensional approach and multiple methods to analyse the global rural-urban interface of a rural hinterland by examining the interaction of both urban-global expansion and the social resilient context of different parts of the area through analysing farming systems in processes of change.

Woods (2011) noted that for most rural communities, globalisation is experienced in more incremental and mundane ways. Therefore, new directions for rural studies have called for studies from all parts of the world to examine the impact of globalisation on everyday life and methods that particularly attempt to engage with human geography in a global era.

Globalisation in a rural context has commonly focussed on large-scale structural changes, transnational commodity chains, or dramatic examples of rapid transformations. Conceptualisations of multifunctional agriculture have also been focussed on macro-scalar policy-based processes. However, Wilson (2008) argued that expression of multifunctionality is most important “on the ground” where it will lead to tangible changes in the farmed landscape and agriculture-community interaction.

To understand the complex interrelationships between global critical issues and farming resilience, the argument in this research assumes that rural studies should apply multi-methods approaches that enable researchers to engage more closely with farmers’ life histories, farm trajectories, transitions and development pathways. Another step is to develop an equitable academic partnership with rural communities. An application of this approach would be to better target policies in the rural hinterland of Rio de Janeiro and beyond for the purpose of local and regional quality food systems and small-scale agricultural development strategies.

#### *Acknowledgement*

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## 10. Les échanges parcellaires dans l'ouest français : du diagnostic à la proposition de groupes de travail

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### 1. Introduction

La modernisation des structures agricoles françaises engagée au début des années soixante doit beaucoup à la réorganisation foncière. À l'échelle communale, elle a souvent pris la forme du remembrement permettant l'amélioration des conditions d'exploitation par le regroupement parcellaire et la réduction des distances au siège d'exploitation (Peignot, Minard-Libeau et Déaud, 1999). Dans les bocages denses de l'Ouest de la France, les parcelles de petite taille et de forme irrégulière constituaient un obstacle majeur à la modernisation agricole (Renard, 1975). Grâce au remembrement qui a redessiné la trame parcellaire, la motorisation des tâches agricoles a contribué à l'augmentation de la productivité agricole. Mais les conséquences environnementales du remembrement (arasement du bocage, pollution des eaux, érosion et inondations) ont marqué l'histoire de l'aménagement des espaces ruraux (Barthez, 1970 ; Marochini, 1999). Ces bouleversements fonciers ont été soutenus par un bon nombre d'organisations professionnelles agricoles promouvant, par le soutien au progrès technique, le développement d'une agriculture performante et valorisante pour les paysans. Ils se sont toutefois opposés à de fortes réticences de la part de nombreux propriétaires et paysans (Barthez, 1970), voyant dans le remembrement la menace de l'exode rural et la fin des sociétés paysannes annoncées par Mendras (1967).

L'« Aménagement Foncier Agricole et Forestier » (2005) qui s'est substitué au remembrement a poursuivi la réorganisation des structures parcellaires avec les mêmes objectifs qu'hier : regrouper et rapprocher les parcelles agricoles du siège d'exploitation. Mais ces opérations sont devenues moins fréquentes à partir des années 1990, au moment où les moyens des conseils départementaux — humains et financiers — se sont affaiblis (Philippe et Polombo, 2009). Pourtant la demande de recomposition foncière est toujours aussi forte : le parcellaire des exploitations agrandies par la reprise de terres souvent éloignées du siège d'exploitation (Marie, 2009 ; Preux, Delahaye et Marie, 2015), produit un parcellaire de plus en plus éclaté. Face à la dérégulation des marchés, à la concurrence

accrue, aux nouvelles attentes environnementales et sociétales, l'organisation parcellaire est un facteur d'ajustement important des coûts de production.

Cette proposition de communication s'appuie sur une thèse de géographie en cours portant sur l'étude de la mise en œuvre de nouvelles formes de réorganisation foncière : les opérations d'échanges parcellaires dans les régions d'élevage de l'Ouest de la France.

## *2. Des échanges parcellaires qui révèlent le rôle des leaders agricoles locaux et les rapports sociaux en agriculture*

Alors que l'agrandissement des exploitations agricoles engendre le morcellement de leur structure spatiale, les échanges parcellaires constituent un mode d'aménagement foncier original (sans procédure systématique et basé sur du volontariat), dans lequel deux ou plusieurs agriculteurs (propriétaires ou non) échangent l'exploitation (et/ou la propriété) d'une ou plusieurs parcelles. Deux raisons objectives motivent ce mode d'aménagement pour les exploitations laitières : réduire l'éloignement des parcelles et augmenter la surface pâturable accessible depuis les bâtiments d'élevage. Les échanges parcellaires sont proposés par les Chambres d'agriculture dans le cadre d'opérations à l'échelle communale, intercommunale et/ou quelques-fois à l'échelle d'un bassin versant. Quelle que soit l'échelle considérée, la dimension environnementale de cet outil de gestion du foncier est manifeste. En facilitant l'augmentation des surfaces pâturables, en réduisant les déplacements, en améliorant l'accès aux parcelles de cultures et leur surveillance pour la réduction des intrants, les échanges parcellaires permettent de tendre vers des systèmes agricoles plus durables. Il est d'ailleurs de plus en plus utilisé dans certains territoires sensibles (bassins Algues vertes, zones de protection de captage, bassin versant en contentieux européen, etc.). Caractérisé par une relative liberté d'implication des exploitants, les opérations d'échanges parcellaires ont profondément transformé les manières de restructurer le parcellaire. Ces opérations, qui fonctionnent selon une dynamique de projet, sont portées par les Chambres d'agriculture et n'ont plus aucun caractère contraignant. L'animation repose donc principalement sur l'accompagnement des agriculteurs dans l'élaboration de scénarios d'échanges de terres à partir d'une cartographie du parcellaire.

A travers la transformation des modes d'aménagement foncier (de 1960 à aujourd'hui), nous pouvons analyser l'évolution des rapports sociaux dans les espaces ruraux et agricoles. L'émergence d'un projet d'échanges parcellaires est le fruit d'une réflexion initiée localement par les élus des organismes consulaires, préalablement informés dans les réseaux professionnels (Pauchard, Madeline et Marie, 2016, 2018). La position sociale et économique de ces élus (Maresca, 1983) a un rôle déterminant dans l'émergence de ces opérations. En effet, le cadre institutionnel dans lequel se développent ces opérations, laisse une place importante aux leaders agricoles locaux qui mobilisent leur réseau d'interconnaissances local. Les membres de ces réseaux ont des profils qui présentent des caractères communs : partage de normes professionnelles, de pratiques agricoles, structures foncières, similaires, etc. Tous les exploitants ne sont pas intégrés à ce réseau d'interconnaissance. Face à la marginalisation de certains exploitants dans ces derniers, un des enjeux pour l'animateur est de réussir l'intégration du maximum de participants dans la démarche. Il doit aussi veiller au bon déroulement de l'opération afin que les échanges parcellaires ne fassent pas l'objet d'un rapport de force dont les résultats pourraient être

inévitables. Pour s'affranchir de ces enjeux d'interconnaissances, le rôle d'animation des conseillers semble primordial afin d'intégrer le plus d'agriculteurs dans l'opération.

Ainsi, cette recherche propose de réfléchir aux méthodes d'animations de telles opérations. Nous nous demanderons alors, quels outils peuvent-être développés pour l'accompagnement des exploitants dans l'élaboration de scénarios d'échanges parcellaires ? Nous exposerons les résultats de cette réflexion en présentant les outils créés pour répondre aux besoins et en discutant les résultats de leur expérimentation. La dernière partie de cette communication visera à analyser les apports et les limites de l'utilisation de ces outils par les animateurs et les exploitants.

### 3. *L'observation participante pour proposer et expérimenter des méthodes et outils d'animation*

Notre travail vise à fournir des outils d'animation d'une opération d'échanges parcellaires aux conseillers des Chambres d'agriculture. Il s'inscrit dans un travail d'observation participante (Soulé, 2007) réalisé au cours de plusieurs opérations d'échanges parcellaires dans le Grand-Ouest. A partir d'une analyse spatiale des structures parcellaires agricoles, la méthode développée conduit à la réalisation d'un diagnostic et la constitution de groupes de travail, que nous avons ensuite expérimenté dans deux opérations (une commune dans le Finistère et un bassin versant dans l'Ille-et-Vilaine).

Pour mettre en œuvre ces outils, les structures parcellaires des agriculteurs ont été analysées grâce au registre parcellaire graphique et à la localisation des sièges d'exploitation (obtenue sur le terrain). Le Registre parcellaire graphique (RPG) de niveau 4 est produit par l'ASP (l'Agence des Services de Paiement qui assure le versement des subventions européennes aux exploitants agricoles) et obtenu chaque année à partir des déclarations PAC des exploitants agricoles (déclaration des parcelles cultivées). Il permet de représenter, dans un Système d'Information Géographique, les exploitations agricoles. Pour chaque îlot déclaré par les exploitants (identifiant rendu anonyme), la base de données renseigne sur la tranche d'âge (s'il s'agit d'une exploitation individuelle) ou de la forme juridique (s'il s'agit d'une forme sociétaire). Elle nous renseigne sur la surface de l'îlot mais aussi sur la surface déclarée par l'exploitant. Pour chaque îlot, nous connaissons le code du département du siège auquel il est rattaché ainsi que le code INSEE de la commune dans laquelle il se trouve.

La réalisation d'un diagnostic global des conditions de travail des exploitants s'appuie sur des critères de mesure de l'organisation spatiale des exploitations. Ils ont été cartographiés pour identifier le caractère contraignant ou non des parcelles (selon leur position relative à l'ensemble de la structure parcellaire de l'exploitation). Plusieurs indicateurs sont retenus : la distance, l'isolement, l'éclatement et le niveau de regroupement. Ces indicateurs ont été calculés et cartographiés sur la totalité des îlots de la commune puis présentés aux exploitants lors de la seconde réunion d'animation organisée par les Chambres d'agriculture notamment au début d'une opération dans le Finistère. Les animateurs sont très souvent sollicités pour apporter plus concrètement des solutions ou des propositions d'échanges parcellaires. C'est pourquoi nous avons mis en place une méthode permettant d'extraire des groupes de travail composés de plusieurs agriculteurs. Nous reviendrons donc sur les apports de ces derniers et sur les difficultés rencontrées par les animateurs et les exploitants.

#### 4. Résultats de l'expérimentation : quels outils pertinents pour animer une opération d'échanges parcellaires ?

Dans un premier temps, une commune a fait l'objet d'un diagnostic global. En identifiant le caractère contraignant des parcelles, l'objectif était de déterminer un potentiel caractère échangeable. Ce premier travail cartographique a permis à l'ensemble des exploitants d'engager une discussion et une réflexion sur les conditions de travail. Or, les exploitants ont parfois de grandes difficultés à retrouver la localisation de leurs parcelles sur les cartes, c'est pourquoi ces premiers éléments de diagnostic ont compliqué la lecture de ces documents. Certaines représentations cartographiques, comme le niveau de regroupement des parcelles (Figure 1), ont toutefois suscité la discussion et permis aux exploitants d'identifier de potentiels participants aux échanges parcellaires. Les cartes relatives à la dispersion du parcellaire sur les communes voisines (Figure 2) ont, elles aussi, provoqué des échanges au sujet des croisements sur les routes (entre les agriculteurs de la commune et ceux travaillant sur les communes voisines).

Nous considérons que les cartes proposées sont des supports de discussion essentiels pour les exploitants et les animateurs. Or, nos observations montrent que les exploitants attendent beaucoup des animateurs. Ils sont nombreux à leur demander des solutions et des appuis en termes de médiation. Nous pouvons donc réaliser une analyse plus fine des structures parcellaires pour repérer les potentiels échanges. La présentation de cette analyse repose sur les relations de proximité entre les parcelles des exploitants.

Figure 1. Exemple de carte utilisée pour la phase de diagnostic avec les exploitants mesurant le niveau de regroupement parcellaire autour des sièges d'exploitation.

Source : Photo aérienne 2010, RPG 2011 et travail de terrain.

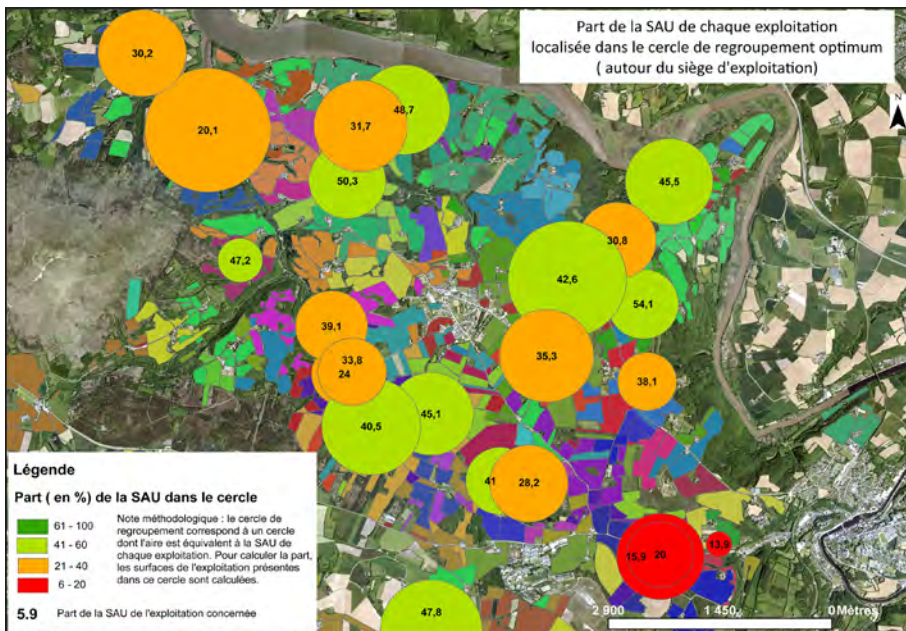
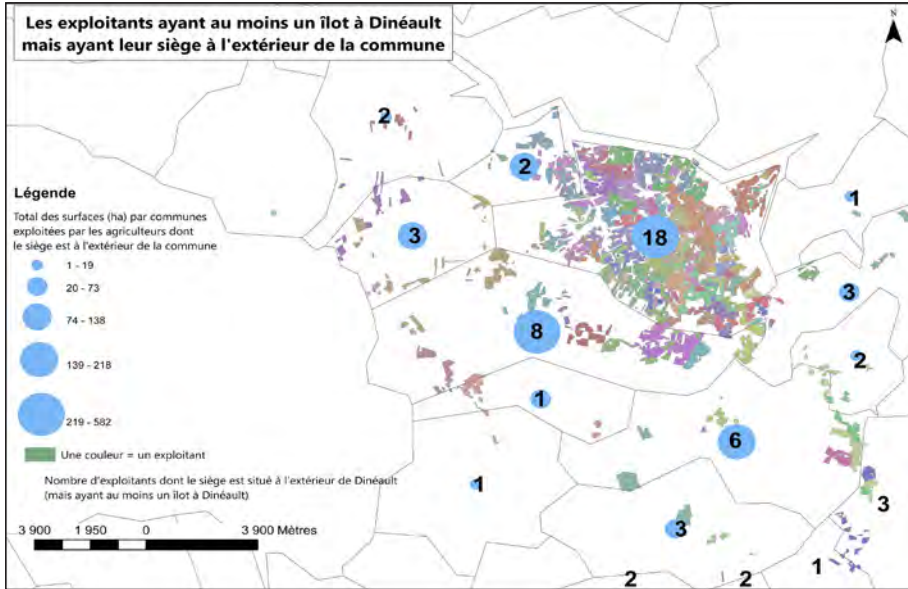


Figure 2. Exemple de carte utilisée pour la phase de diagnostic mesurant la dispersion du parcellaire des exploitants. Source : RPG 2011, GEOFLA et travail de terrain.

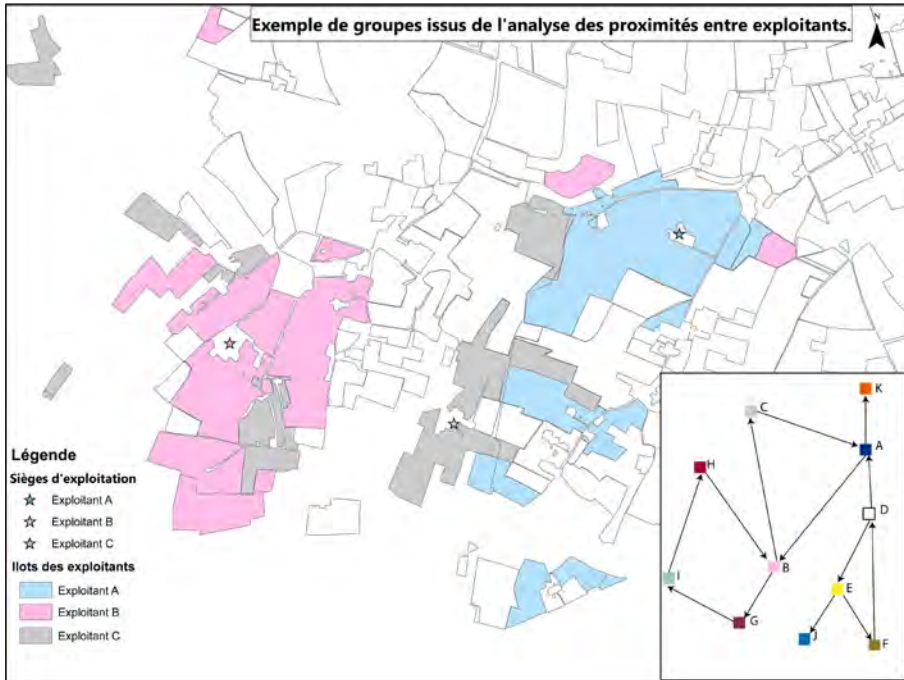


C'est dans un Système d'Information Géographique et, à l'aide d'un logiciel de géomatique (ArcGIS ou Qgis), que nous repérons les proximités spatiales entre les îlots. Pour chaque îlot de la zone étudiée, l'analyse spatiale identifie qui exploite les dix îlots voisins les plus proches. Nous calculons ensuite la distance de ce même îlot au siège des voisins précédemment identifiés, et nous la comparons à la distance réelle (avec le siège d'exploitation d'origine). Nous considérons qu'un îlot peut être intéressant pour le voisin, s'il est situé à une plus courte distance du siège du voisin que de son propre siège, et qu'il peut faire l'objet d'un regroupement de parcelles. Ces situations de proximité propices aux échanges, sont ensuite comptabilisées et récapitulées dans un tableau croisé dynamique. A l'aide d'un logiciel d'analyse de réseau (Ucinet), mobilisé dans les travaux de Beauguitte (2010) ces proximités sont représentées sous forme d'un graphe orienté et pondéré (par le nombre d'îlots pouvant présenter un intérêt pour le voisin). Dans ce graphe, chaque point correspond à un exploitant. Ces exploitants (les points) sont reliés lorsqu'ils exploitent un ou plusieurs îlots dont les caractéristiques spatiales présentent un intérêt pour l'exploitant voisin. Le travail consiste ensuite à repérer des boucles puis à cartographier celles-ci. Par exemple, sur la Figure 3, l'agriculteur A (bleu) exploite des îlots qui peuvent intéresser l'agriculteur C (gris), qui lui-même exploite des îlots intéressants pour B (rose), qui lui aussi a des îlots intéressants pour A (bleu).

### 5. Discussion et conclusion

L'expérimentation de ces méthodes est un moyen d'appréhender la manière dont les animateurs et les exploitants s'approprient ces outils dans les deux opérations d'échanges

Figure 3. Exemple de groupe issu de l'analyse des proximités (réseau UCINET en bas à droite et cartographie du groupe repéré dans ARCGIS). Sources : RPG 2011 et travail de terrain.



parcellaires analysées. Selon les animateurs et le temps disponible consacré à l'opération, les groupes de travail cartographiés ont parfois fait l'objet de rencontres individuelles auprès d'exploitants volontaires (afin de recueillir leurs souhaits et discuter de la faisabilité d'échanges potentiels). Certains modules dans le logiciel de réseau favorisent un travail à échelle individuelle (on peut faire apparaître certains sous-graphes en sélectionnant l'exploitant pour lequel on souhaite visualiser les relations de proximité). L'outil proposé permet surtout aux animateurs de réaliser un premier travail en amont des réunions avec les exploitants. Effectivement, forts d'une meilleure connaissance de la structure parcellaire de la commune., les animateurs interagissent avec les exploitants, et sont force de proposition. Les groupes repérés cartographiés agissent comme des supports de réflexion pour les exploitants et l'animateur. Ils fournissent un plus grand nombre de scénarios quel que soit le nombre et l'identité des participants aux réunions. De façon unanime, la démarche est plébiscitée par les animateurs qui soulignent un gain de temps substantiel.

Malgré son intérêt, l'outil présente des lacunes. Certains critères comme la qualité des terres, la surface des îlots, la place de l'îlot de culture dans le système d'exploitation, les distances réelles par la route, ou encore les relations sociales qui préfigurent aux échanges parcellaires font défaut. Ces imprécisions n'ont pas été un obstacle pour les animateurs puisqu'il leur a semblé surtout important d'avoir un support de discussion.



Les scénarios envisagés n'ont pas tous repris les différents groupes extraits. Il a toutefois permis d'aborder l'ensemble des parcellaires durant l'opération.

Les opérations d'échanges parcellaires constituent un mode d'aménagement dans lequel le volontariat des exploitants conduit l'animateur à être davantage une force de proposition. Pour ce faire, la première méthode de diagnostic caractérise les parcelles et identifie les plus contraignantes pour les exploitants. Dans le second outil, les animateurs émettent des propositions de groupes de travail à partir de l'analyse de l'organisation spatiale du parcellaire des exploitants (analyse des proximités spatiales). Les animateurs ont une meilleure maîtrise de l'état des structures parcellaires. S'ils n'apportent pas de solutions clés en mains aux exploitants, ces outils constituent de réels supports de discussion. Or, ces méthodes supposent, pour les animateurs, une certaine maîtrise des logiciels (SIG et analyse de réseau). La poursuite du travail de recherche visera l'amélioration de l'accessibilité de ces méthodes (par la compilation des étapes dans un seul et même logiciel).

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## 11. Multifunctional Fishing Areas in Policy and Practice. A Comparative Analysis of Spain and Ireland

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### 1. Introduction

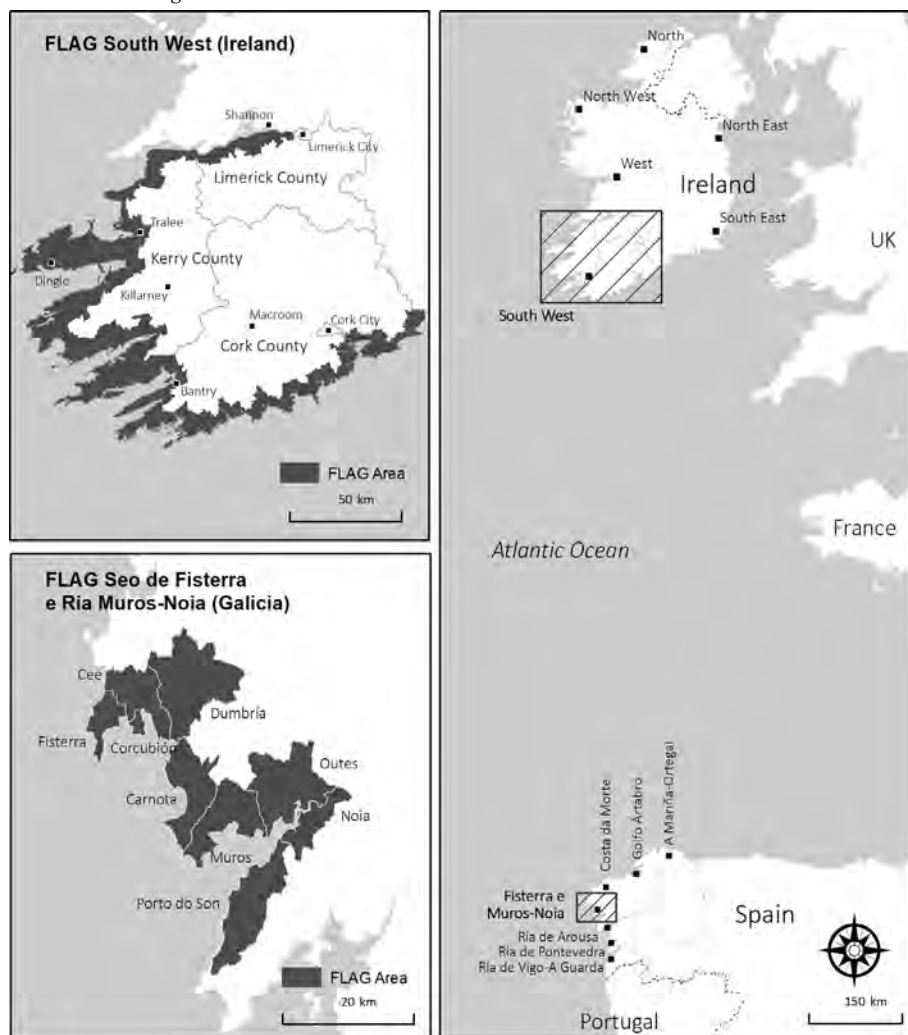
Since its inception in the 1970s, the Common Fisheries Policy (CFP) has had an impact on the objectives of protecting fish stocks from overexploitation, ensuring livelihoods for fishermen and regular supplies at reasonable prices to consumers and industry. However, the passage of time has brought new challenges to this policy, related to the reduction of catches, the increase in production costs and threats to the marine environment. In accordance with the EU paradigm, which advocates an integral, sustainable and multifunctional consideration of territorial development, the CFP, evolving from productivist approaches, sought to create a more stable sector from the economic, environmental and social point of view, and one less dependent on financial support. Since 2007, the European Fisheries Fund (EFF) has incorporated the territorial perspective and the Community-Led Local Development (CLLD) for the sustainable development of fisheries areas. The creation of Axis 4 of the EFF (related to the sustainable development of fisheries areas and diversification of the local economy) and of the Fisheries Local Action Groups (FLAGs) reflects the challenge of rural development deployed by the LEADER programme since the early 1990s. For the first time, this sectoral policy is applying innovative methodologies in territorial governance that are more complex, plural and inclusive (van der Walle et al., 2015), and long-term ascending territorial development processes that respond to the wide range of socio-cultural and environmental conditions of fishing communities and territories that until now had been neglected or omitted (Symes and Phillipson, 2009).

In this context, this paper aims to test the suitability of the FLAGs framework as promoters of functional diversification in fishing areas, through two case-study analyses. Specifically, the research questions are as follows:

- What are the fundamental framework components of a FLAG?
- How has the scheme been implemented in two fishing areas?
- What are the functional diversification processes identified?

Our hypothesis is that applying the framework produces advancing multifunctionality in the coastal areas dependent on fishing, but with significantly different results in different areas.

Figure 1. Irish and Galician FLAGs Case studies. Source: The authors.



The two case-studies are the Seo de Fisterra e Ría Muros-Noia FLAG (Spain) and the South West FLAG (Ireland) as examples. The Spanish FLAG was established in 2008. Its territory covers 593 km<sup>2</sup> and 9 municipalities, where around 66,000 inhabitants live. It is located on the northwest coast of Galicia and includes two main areas, the Ría and the Costa da Morte. The area reveals a 45% dependency on the fishing sector, while, at the same time, it is highly dependent on tourism. The fleet and employment in fisheries

are relevant both in the segment of artisanal fishing, as well as in mussel aquaculture and industrial fishing. Aquaculture, shellfishing activities and seafood processing have been important for local growth. This FLAG selected 43 projects from 2007-2013, with €5,914,248.84 (EFF and national and regional Exchequer contribution). The South West FLAG was established in the final phase of application of the EFF 2007-2013. The area comprises the coastal area of Limerick, Kerry and Cork counties, and covers 10 km inland from the coastline (14,544 km<sup>2</sup>), with a population of 332,069 inhabitants. Elsewhere, fishing, aquaculture and tourism activities occur at a large number of smaller ports and docks along the coastline. Related to fishing vessels, this area accounts for almost one third of all Irish vessel owners, and a quarter of total tonnage. In addition, the largest number of fishing-related industries — nearly one quarter of the total — is found in the South West area. This FLAG selected 28 projects in the 2007-2013 period, with €208,857.79 (EFF and national Exchequer contribution).

A detailed study of the documentation related to the CFP, EFF and FLAG framework (operational programs, proposals, strategic area plans and projects) has been done, and semi-structured interviews have been carried out with those responsible for FLAGs coordination and with the beneficiaries of the funds. This contribution is organised as follows: in the next section, a review of institutional reports and academic literature. Then, the empirical section outlines the case studies. This is followed by a critical discussion of the two experiences in Spain and Ireland regarding the FLAGs scheme, arguing that FLAGs present problems and that their conception could be improved from a theoretical point of view as well as their concrete actions in the case study areas with the objective of achieving an economic diversification that reinforces the role of fishing in the local economy. The paper concludes with some final remarks.

## *2. Sustainable Development of Coastal Areas: Fisheries Areas, FLAGs and Local Development Strategy*

Recent societal transitions in many coastal areas are the result of a shift from an emphasis on food production to a diversity of new activities such as recreation, tourism and nature conservation. The emerging new interests and values, connected to the post-productivist transformation, set new challenges for the resilience of these livelihoods and their sustainability, while they tend to intensify conflicts among user-groups (Salmi, 2015). Some authors claim that this results in the «participation paradox»: the greater the number of actors, the lesser the importance of traditional sectors. Then, an increase in the number of actors as a result of the development of civil society meant that the fishing community lost prominence (Suárez, Rodríguez and Florido, 2008). In fishing areas, various livelihood strategies are applied that imply flexibility within fisheries, geographical mobility and economic diversification. Pluriactivity is common and helps ensure long-term commitment and flexibility (Allison and Ellis, 2001; Salmi, 2015).

Since 2007, the CFP has promoted an approach that reflects the particularities of the local scale and accommodates the proposals articulated by the coastal communities. Drawing on the rural experience from LEADER the way for integration of the fisheries sector within the wider local economy begins. The management of Axis 4

funds is devolved to FLAGS, public-private partnerships responsible for preparing a local development strategy (LDS) and the selection of projects initiated by local stakeholders (European Commission, 2006; van der Walle et al., 2015). It is now when the CFP combines sectoral development and territorial development elements at a local level, through participatory processes in areas dependent on fishing, and adopts the objectives of economic diversification, promotion of innovation, and interregional and transnational cooperation, that coincide with those defined by LEADER (Marcianò and Romeo, 2016).

Axis 4 funds for the sustainable development of fisheries areas have contributed to intensifying the debate on whether development strategies for these areas should strengthen the local fishery-based economy, or on the contrary stimulate the advancement of new economic sectors (Symes and Phillipson, 2009). In the cases analysed in this paper, the two options were complementary within the strategies of CLLD and economic diversification. But also the actions sought the revitalisation of fishing and the enhancement of their cultural heritage, in order that the fishermen continued to exploit their professional skills and knowledge, and maintained social networks linked to the activity (Morgan, Lesueur and Henichart, 2014).

### *3. Methodological Considerations*

Two data collection methods were adopted. Firstly, documentary analysis was undertaken from a number of sources including: EU legal texts, operational programs, LDS, reports, projects and webpage information. Secondly, semi-structured interviews have been carried out with those responsible for the coordination of the FLAGS, and with the beneficiaries of Axis 4.

The Methodological work was developed in three phases:

1. analyse the process of implementation of the funds that the CFP allocated to the sustainable development of fishing zones, in the selection of groups and in the establishment of areas of intervention;
2. analyse the planning stage carried out by the FLAGS to shape their partnership and design the local development strategy; and
3. assess the execution phase, analysing the financed projects and their adaptation to the approved strategies.

The lists of EFF beneficiaries published for Spain by the Dirección General de Gestión Pesquera, updated as of 31<sup>st</sup> December 2015; and for Ireland by the Department of Agriculture, Food and the Marine, with figures of payments made until March 2017 were used as data sources. To deepen the nature and objectives of each project, the reports of the Secretaría General de Pesca and the Spanish Network of Fishing Groups were used for Spain. For Ireland, the information was obtained from the Irish Sea Fisheries Board (BIM), in addition to that provided by the FLAGS Coordination.

#### 4. Fisheries Local Area Development Scheme

##### 4.1. The Framework

To address the local management of Axis 4 funds three fundamental framework components were necessary: fishing area, local partnership and, finally, multi-year local strategy. First, a flexible framework was established for the selection of fishing areas, based on criteria such as size, population density and evolution of fishing activity, as well as the ability to unite a human, economically critical and financially viable mass. This allowed the states to use different approaches: some only defined the criteria for accessing funds, allowing issues such as the number of groups or area boundaries to be negotiated locally. Other countries preferred more controlled processes of governance, and established the number of areas, their limits and number of groups (FARNET, 2010; Felicidad-García and Piñeiro-Antelo, 2017). The latter is the situation of the cases that we address in this work. Second, FLAGs are associations composed of public, private and civil society actors. Explicitly, the model has favoured the creation of organisations with experience in CLLD and in the management of European funds. Therefore, in some cases, the same association manages different funds (EAFRD, European Agricultural Fund for Rural Development, and ERDF, European Regional Development Fund). In other cases, the groups, although functioning autonomously, apply coordination formulas in their intervention in the territory (ENRD, 2012), as in the FLAG South West, while in other fishing areas there is hardly any cooperation between the managers of the different European programs, as verified in the FLAG Seo of Fisterra e Ría Muros-Noia. The third pillar of this model is the LDS of the fishing areas. Its elaboration meant effective cooperation between the actors involved in identifying both the dynamics that affected these territories and the main problems they faced (Linke and Bruckmeier, 2015).

##### 4.2. Implementation

The EFF means a fairly small intervention in relation to other funding programmes being supported in Spain and Ireland in the period 2007-2013. Furthermore, it is also a small EFF programme in European terms. Ireland's €42.3mn allocation under the EFF is equivalent to 1% of the total budget of the Fund, while Spain was among the largest beneficiaries of the EFF in absolute terms, with €1.1bn (26%) (DAFM, 2011). Countries with strong fishing sectors tend to allocate less funds to Axis 4, focusing their efforts on other priority axes for communities affected by the loss of fisheries and income (Budzich-Tabor, 2014). Thus, in Spain, only 4% of the programmed investment of the EFF went to Axis 4. In Ireland this percentage was 2.4%, the lowest in the EU (FARNET).

When Seo de Fisterra e Ría Muros-Noia FLAG was approved in 2008, the establishment of fishing areas had already been carried out by the Government of Galicia based on the criteria of population density and weight of the fishing economy in municipal GDP. Therefore, this FLAG, just as the rest of the Spanish groups, did not have the chance to propose limits for the fishing areas, which implied the design of a LDS for the area of intervention defined in a prior phase. In the case of Ireland, the FLAG scheme was established in the final years of the 2007-2013 period due to the lack of sufficient Exchequer funding. The implementation authority of Ireland for the EFF

(BIM) established two pilot areas for the South East and West in late 2012. In 2013, four more FLAGs were established, including the South West FLAG. Initially, it was intended that the BIM organise calls for proposals within defined geographical areas (chosen by the applicants), and then select the FLAGs and the covered areas. Once selected, the FLAGs would draw up their LDS and proceed to implement their action plans and to select eligible projects. However, it was subsequently decided to have the entire coast covered under Axis 4 and a total of six areas were established. BIM had regional coordinators in each of the coastal areas prior to the FLAG Programme, and supported the six FLAGs in acquiring skills and facilitating the preparation and implementation of their LDS.

### *5. Discussion and Conclusion*

A deep assessment of the strengths and weaknesses of the FLAG scheme cannot yet be made. It is too soon to calculate the added value locally, determine the effectiveness and durability of partnerships intended to generate synergies across fisheries and the wider business community, or measure the degree of complementarity with other local development initiatives. Nevertheless, FLAG scheme has demonstrated that it can provide important lessons for the future in achieving a balanced approach between sectoral and territorial development (Phillipson and Symes, 2015). Our analysis of case studies has verified that the implementation of the FLAG framework in both case studies served to finance the introduction of improvements in the production and commercialisation processes of fishing and its industry. It also helped strengthen the synergies between the fishing and tourism sectors, taking advantage of the maritime cultural heritage as a resource. In this way, the fishing sector provides the coastal towns and communities with an identity as well as an economy (Brookfield et al., 2005; Urquhart and Acott, 2013).

But this work also wants to highlight aspects that should be improved in the 2014-2020 programming period. These aspects are related to both the model and its application in the analysed fishing areas, and in any case, with the guarantee of the role of the FLAG as a local development agent against the interests of the political and economic powers. Restricting the amount of financing granted to each project would favour the objectives of the EFF to promote small-scale local operations, while responding to an effective representation of fishermen and small entrepreneurs in the face of the dominant participation of the stronger local agents, large companies and public institutions. Among the aspects to be improved in the implementation of this model in the cases analysed, we conclude that the limitation in the development of the bottom-up approach, related to the selection process of fishing areas, must be overcome. The FLAGs must be the protagonists of the design of their intervention areas, to move from project-based regions to functional and coherent areas, in which the local population becomes a promoter of participatory development processes.

The main challenge facing the CFP is to value the multifunctionality of fishing and coastal communities, promoting the participation of other sectors. It is not possible to achieve the sustainable development of an area dependent on fishing without cooperation in horizontal and integral strategies linked to the intrinsic values of fishing, the



development of social capital, and on the basis of specific skills and resources of local ecological knowledge which may not be easily replicated (Phillipson and Symes, 2015). By correcting the imbalances of a new system, FLAGs play a decisive role in demonstrating the economic and social benefits of sustainable fisheries, and strengthening the synergies of fishing with other economic sectors at the local level.

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## 12. La influencia de LEADER (2007-2013) en el turismo de los municipios andaluces con balnearios y nuevas estrategias de turismo sostenible

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*The influence of the LEADER (2007-2013) on tourism in Andalusian municipalities with spas and new strategies for sustainable tourism*

In recent decades, governments have tried to promote rural development and diversification of economic activity in rural areas. One of the measures adopted has been to raise funds from the LEADER to boost creation of companies and employment. In this context, the impact and characteristics of the tourism actions that have been promoted through LEADER 2007-2013 in Andalusian municipalities containing spas are presented. In addition, these municipalities are characterised by the existence of underutilised spatial resources that could be put into value if they were incorporated into the existing thermal/rural tourism offer.

### 1. Introducción

En el contexto actual de cuestionamiento de la multifuncionalidad —aplicada al turismo y actividades de ocio— en los espacios rurales de todo el mundo, puede resultar interesante analizar la influencia que ha tenido LEADER (2007-2013) en los municipios andaluces con balnearios.

A menudo, las estaciones termales se localizan en espacios de marcado carácter rural, con un alto valor ambiental y unas condiciones socioeconómicas con amplio margen de mejora. Estos municipios suelen presentar grandes potencialidades turísticas vinculadas al termalismo así como, simultáneamente, recursos territoriales infrautilizados.

LEADER en el periodo 2007-2013 contempla sus objetivos dentro de un Plan Nacional, con la intención de que se aplique a una escala mayor y a un conjunto más amplio de actividades, resultando clave la potenciación de estrategias de desarrollo local y la integración de los espacios rurales en sus espacios regionales (Esparcia, 2009; Esparcia y Escribano, 2012). En concreto, la investigación se centra en la Medida 413 y en su Acción 313, denominada: “Fomento de actividades turísticas”.

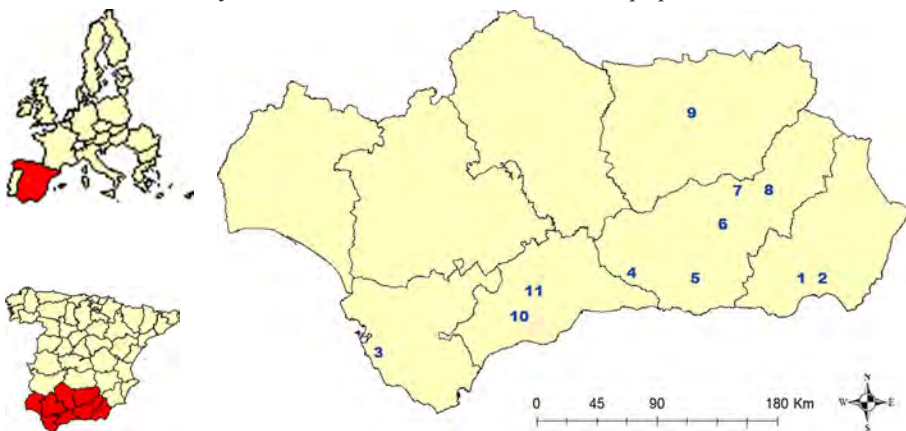
En segundo lugar, se considera que las actividades turísticas sostenibles desarrolladas en el medio rural pueden ser coexistentes con otros tipos de actividades que se lleven a cabo en estos espacios, con objeto de que ambas contribuyan a la diversificación de la estructura productiva. En este sentido, se pretende analizar los recursos infrautilizados de los municipios andaluces con balnearios en funcionamiento para tratar de integrarlos a la oferta turística existente con objeto de alcanzar una multifuncionalidad que beneficie tanto a nivel económico, como social y ambiental.

En síntesis, los objetivos de la investigación se centran en:

- Conocer la importancia y distribución espacial de los proyectos de la Acción 313 a escala local de cada uno de los 11 municipios con balnearios en Andalucía.
- Conocer la importancia y distribución espacial de las subvenciones concedidas, de la Acción 313 a escala local de cada uno de los 11 municipios con balnearios en Andalucía.
- Conocer la importancia y distribución espacial de las inversiones ejecutadas, de la Acción 313 a escala local, de cada uno de los 11 municipios con balnearios en Andalucía.
- Conocer la importancia, distribución espacial y algunas características del empleo generado, de la Acción 313 a escala local de cada uno de los 11 municipios con balnearios en Andalucía.
- Recopilación de los recursos histórico-artísticos de cada municipio, y de otros con interés turístico, mediante el Inventario de Patrimonio Cultural de Andalucía (mueble e inmueble).
- Identificación de los recursos ambientales más importantes en cada municipio a través de la información de la Red de Espacios Naturales Protegidos de Andalucía (RENPA).
- Determinar si los recursos naturales e histórico-artísticos localizados en los municipios se encuentran o no puestos en valor.
- Realizar una primera aproximación a los problemas y potencialidades existentes para ponerlos en valor dentro de la oferta de turismo rural como estrategia de desarrollo multifuncional.

El área de estudio abarca los once municipios de Andalucía con balnearios en funcionamiento en la actualidad (Figura 1): (1) San Nicolás; (2) Sierra Alhamilla; (3) Chiclana; (4) Alhama de Granada; (5) Lanjarón; (6) Graena; (7) Alicún; (8) Zújar; (9) San Andrés; (10) Tolox; (11) Thermas de Carratraca.

*Figura 1. Mapa de localización de los balnearios andaluces en funcionamiento en 2018. Fuente: elaboración propia.*



## 2. Consideraciones teóricas

Las zonas rurales de Andalucía, igual que ha ocurrido a escala nacional e incluso internacional, han experimentado una importante transformación. Sus cambios, especialmente evidentes desde la década de los sesenta del pasado siglo, se derivan fundamentalmente de la crisis de la agricultura tradicional que propició una importante pérdida de oportunidades a nivel económico (Wilson et al., 2001). Esta situación ha afectado a un grueso de población significativo y ha abarcado una considerable extensión territorial.

Derivado de lo anterior, la realidad actual de los espacios rurales a nivel nacional y en los de Andalucía en particular necesita soluciones urgentes, nuevas estrategias económicas que generen empleos e ingresos, estimulen la regeneración poblacional, mejoren las condiciones de vida de los habitantes del mundo rural y posibiliten el crecimiento económico (Wilson et al., 2001; Briedenhann y Wickens, 2004). Esta necesidad se constata tanto en la ingente cantidad de estudios científicos que las han analizado, como en las medidas que se han implementado por parte de las administraciones públicas y la iniciativa privada.

En este contexto los fondos captados por la Comunidad Autónoma de Andalucía, tras la entrada en la UE en 1986, a través de los Programas LEADER así como el turismo rural pueden contribuir a paliar y/o erradicar los problemas en algunos casos. No obstante, el turismo no es la panacea para solucionar todos los problemas de los municipios rurales (Cànoves, Villarino y Herrera, 2006), ya que la capacidad que tiene para generar empleo es baja pues se trata de un segmento turístico con importante estacionalidad, baja estancia media y grado de ocupación también bajo (Rico, 2005). Sin embargo, para determinadas zonas rurales con recursos con capacidad de atracción turística, puede colaborar en la necesaria diversificación de su estructura productiva y convertirse en un factor determinante en la conservación de los recursos tanto naturales como socioculturales (Reyna, 1992).

La Iniciativa Comunitaria ha impulsado desde su creación y puesta en marcha como estrategia experimental en los años 1991-93, con el LEADER I, el desarrollo rural en la Unión Europea (Sáenz y Cejudo, 2008; Navarro, Cejudo y Maroto, 2014). Parte de la premisa que la actividad económica es la dimensión fundamental para lograr dinamizar la dimensión social y la ambiental del mundo rural. Como consecuencia, el objetivo viene siendo impulsar un medio rural competitivo y de calidad (Pillet, 2008). La estrategia para conseguirlo se centra en favorecer la coordinación del máximo de recursos humanos y materiales existentes, que tengan interés y/o puedan fomentar y/o contribuir en el desarrollo rural (Esparcia, Noguera y Ferrer, 2003; Esparcia 2006), a través de Grupos de Acción Local (GAL). Se buscó implicar a representantes políticos, empresarios, asociaciones y población civil para que, con la colaboración de técnicos, tratasen de concretar una estrategia de desarrollo rural y la implementasen en cada uno de los territorios que se delimitaron (Esparcia, Noguera y Pitarch, 2000). En definitiva, se trata de un Programa de carácter endógeno, local e integrado (Guinjoan, Badia y Tulla, 2016).

Por otra parte, los espacios rurales con recursos naturales e históricos-artísticos pueden ofrecer experiencias únicas, de contraste con el mundo urbano, que garantizan la satisfacción del turista (Briedenhann y Wickens, 2004; Kastenzholz et al., 2012). Con este fin es importante conocer si existen o no recursos con potencialidades turísticas, así como sus características y posibilidades de insertarlos en la estrategia turística basada en el turismo de salud y sostenible (Lane, 2005).

### *3. Consideraciones metodológicas*

La información de la presente investigación procede de la Consejería de Agricultura, Pesca y Desarrollo Rural de la Junta de Andalucía, con un nivel de desagregación de «Proyecto», localizado a escala municipal.

De los 6.225 proyectos ejecutados en el periodo temporal 2007-2013 en Andalucía, se ha procedido a utilizar sólo aquellos que los técnicos que han confeccionado estas estadísticas en los diferentes GDR han catalogado dentro de la Medida 413 y de la acción 313, un total de 750. De estos, algunos se han ejecutado en los once municipios objeto de estudio.

Es necesario matizar que esta selección implica que los resultados deben ser interpretados como una estimación a la baja, puesto que podrían ser más si se utilizaran las denominaciones de estos proyectos, pues algunos podrían estar relacionados con la actividad turística. Sin embargo, esta cuestión habría llevado a una situación de ambigüedad que sólo podría haber sido superada mediante una entrevista a los técnicos que realizaron la clasificación para conocer las razones que justifican su decisión de clasificar el proyecto en una determinada Medida y Acción.

Se ha procedido a la consulta de los balnearios de Andalucía en funcionamiento en la página web del Observatorio Nacional de Termalismo y se ha comprobado el municipio (con su código INE) en el que se ubican. Posteriormente, se han vinculado los códigos INE de los municipios con balnearios a la base de datos de la Consejería de Agricultura, Pesca y Desarrollo Rural de la Junta para ver qué municipios tuvieron inversiones LEADER. Finalmente, se han identificado los municipios con balnearios que recibieron fondos LEADER y, de ellos, cuáles tuvieron una inversión relacionada (directa o indirectamente) con el balneario en él ubicado.

Los datos han sido trabajados con diferentes herramientas. Con un Excel se han elaborado las tablas estadísticas y gráficas que permiten la interpretación y comentario de los resultados obtenidos. Además se ha utilizado ArcGis para representar cartográficamente la información tomando como unidades espaciales la delimitación provincial andaluza y por otro lado los 11 municipios de Andalucía con balnearios en funcionamiento.

Posteriormente se ha procedido a la consulta de los recursos histórico-artísticos de cada uno de los municipios en el Inventario de Patrimonio Cultural de Andalucía (mueble e inmueble). El mismo procedimiento se ha seguido para los recursos ambientales localizados a través de la información de la Red de Espacios Naturales Protegidos de Andalucía (RENPA). Finalmente, se ha determinado si se encuentran o no puestos en valor y cómo podrían implementarse a la oferta turística del municipio para lograr la dinamización del mismo.

### *4. Aproximación a los resultados*

En la Tabla 1 se recogen los once balnearios andaluces en funcionamiento según el Observatorio de Termalismo, el municipio y provincia donde se ubican así como si a nivel municipal se han obtenido fondos LEADER relacionados con la acción 313. En suma, se analiza, en la última columna, si la inversión está directa o indirectamente relacionada con la estación termal.

Tabla 1. Balnearios en funcionamiento actualmente en la Comunidad Autónoma de Andalucía, actuaciones LEADER en estos municipios y su relación con la estación termal. Fuente: Observatorio Nacional de Termalismo e INE. Elaboración propia (consultado el 24/11/2017).

Balneario	Provincia	Municipio	COD. INE	Actuación LEADER	Actuación en balneario
1. San Nicolás	Almería	Alhama de Almería	04011	4	No
2. Sierra Alhamilla	Almería	Pechina	04074	0	-
3. Chiclana	Cádiz	Chiclana de la Frontera	11015	0	-
4. Alhama de Granada	Granada	Alhama de Granada	18013	8	Sí (1)
5. Lanjarón	Granada	Lanjarón	18116	7	No
6. Graena	Granada	Cortes y Graena	18054	2	No
7. Alicún	Granada	Villanueva de las Torres	18187	4	Sí ¿1?
8. Zújar	Granada	Zújar	18194	5	Sí ¿1?
9. Andrés	Jaén	Canena	23020	5	No
10. Tolox	Málaga	Tolox	29090	16	Sí (2) /¿3?
11. Termas de Carratraca	Málaga	Carratraca	29036	0	-

Como se refleja en la Tabla 1 tan sólo tres de los municipios con balneario no han recibido fondos LEADER en el periodo 2007-2013. De los ocho beneficiados con las inversiones europeas, tan sólo cuatro recibieron subvenciones relacionadas directa o indirectamente con el balneario.

Con esta información se procede a analizar cuestiones como la subvención concedida, la inversión realizada o el empleo total. Además, es posible comparar los datos obtenidos con la media a escala provincial y del GDR andaluz al que pertenecen los municipios con balneario. Las Figura 2, 3 y 4 recogen datos en relación a los indicadores y escalas mencionadas.

En suma, se han analizado los recursos histórico-artísticos y naturales infrautizados en los once municipios con balnearios para establecer estrategias territoriales de dinamización integradas y sostenibles. En todos ellos se ha comprobado la existencia de más de cinco bienes de patrimonio mueble e inmueble recogidos en el Inventario Andaluz, sin embargo una amplia mayoría no están indicados/ofertados en las web de turismo de cada municipio. Además, muchos de estos balnearios andaluces se encuentran próximos a espacios naturales de alto valor ecológico como por ejemplo el Parque Natural de las Sierras de Tejeda, Almjara y Alhama cercano a la ciudad termal alhameña.

La creación de rutas turísticas en torno a los recursos histórico-artísticos municipales junto con una oferta vinculada a los espacios naturales próximos, que permitiría el desarrollo de actividades al aire libre, podrían suponer un complemento a la cura termal ofrecida en los establecimientos balnearios. De esta forma el agüista podría disfrutar de una experiencia de turismo de salud diversa, integradora y sostenible.

Figura 2. Subvención media por proyecto de LEADER (2007-2013) en las provincias andaluzas. Fuente: elaboración propia.

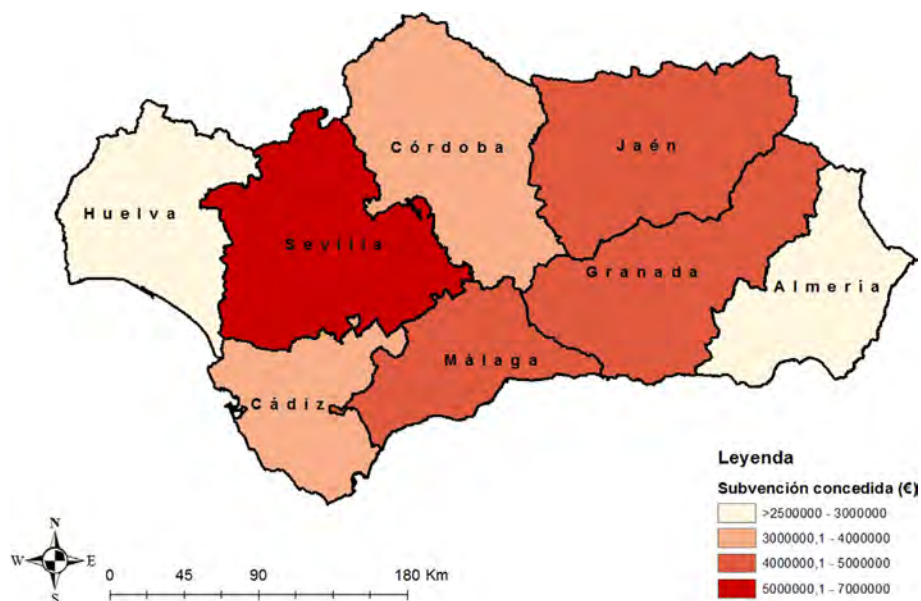


Figura 3. Inversión LEADER (2007-2013) por provincias. Fuente: elaboración propia.

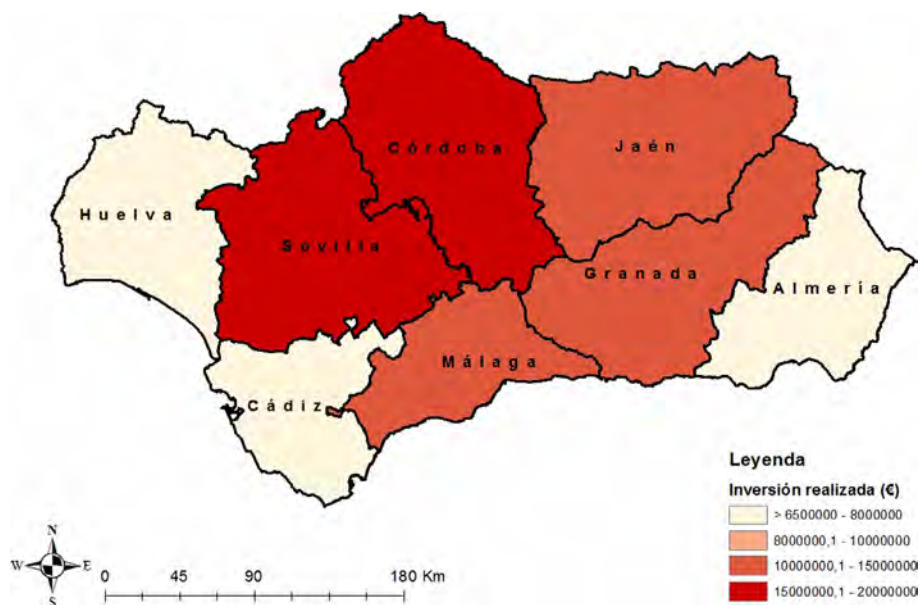
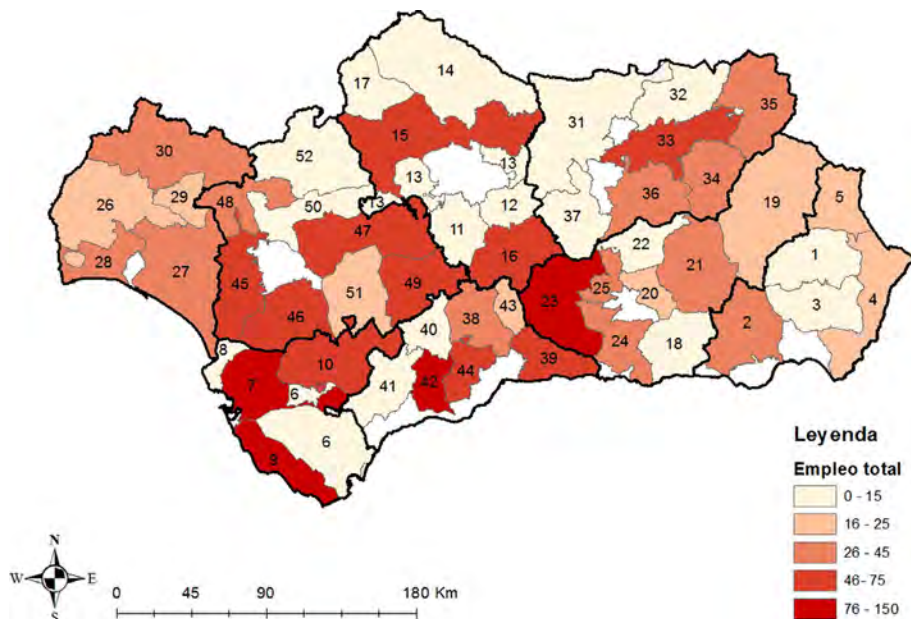




Figura 4. Empleo total generado por LEADER (2007-2013) en los GDRs de Andalucía. Fuente: elaboración propia.



### 5. Discusión y conclusión

El análisis estadístico y posterior tratamiento cartográfico de la base de datos de la Consejería de Agricultura, Pesca y Desarrollo Rural de la Junta de Andalucía ha permitido alcanzar el objetivo inicial de analizar la influencia del periodo LEADER 2007-2013 en los municipios de Andalucía con balnearios en funcionamiento. Además, la combinación de información de las distintas fuentes consultadas (Inventario de Patrimonio Cultural de Andalucía y RENPA) ha favorecido la identificación de recursos infrautilizados. De esta forma es posible establecer un diagnóstico de la situación turística de los once municipios andaluces así como estrategias de dinamización futuras con un marcado carácter multidisciplinar y sostenible a nivel económico, social y ambiental. Las hipótesis de partida han sido confirmadas pues realmente existen en Andalucía espacios con potencialidades turísticas y recursos de interés que precisan de medidas para su puesta en valor.

Por otra parte, la combinación de las variables y fuentes utilizadas puede resultar de interés, aunque bien es cierto que se hacen precisas otras que desgraciadamente no ofrecen las estadísticas oficiales, pero que sería imprescindible confeccionar para poder realizar análisis-diagnóstico más completos.

En última instancia, la investigación persigue una finalidad práctica de las cuestiones planteadas que podría resultar de gran ayuda para los once municipios señalados si se pasa del planteamiento teórico a la práctica por parte de todos los agentes territoriales implicados. Por otra parte, se espera que en el contexto actual de eclosión de investigaciones basadas en las Big Data como fuente de información, se considere abrir una nueva línea

de investigación paralela que aborde estudios relacionados con el turismo de salud a nivel municipal.

En síntesis, los municipios de Alhama de Almería (Almería), Pechina (Almería), Chilclana de la Frontera (Cádiz), Alhama de Granada (Granada), Lanjarón (Granada), Cortes y Graena (Granada), Villanueva de las Torres (Granada), Zújar (Granada), Canena (Jaén), Tolox (Málaga) y Carratraca (Málaga) presentan una oferta turística vinculada al turismo de salud y simultáneamente cuentan con recursos infrautilizados que podrían resultar complementarios a la misma. Más del 70% de estos once municipios ha recibido fondos europeos de la Iniciativa Comunitaria LEADER vinculados al fomento de actividades turísticas y un 50% de los mismos estaba dirigido a la estación termal. Esta circunstancia, unida a la integración en la oferta de los restantes recursos del municipio, puede ser el punto de partida para ayudar o al menos aminorar la decadente situación de estos municipios rurales andaluces.

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### 13. Conceptualising Rural Sustainability in an Era of Transformative Technologies and a Globalising World Economy

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#### 1. Introduction

This paper conceptualises the extreme difficulty in coming to grips with the concept of rural sustainability in a world of increasingly rapid and transformative technological change which promises to rewrite many of our ideas and preferences concerning the structure and management of environment, economy and society. Our age of many incipient technologies has variously been termed the Second Machine Age (Brynjolfsson and McAfee, 2014) or the Third and Fourth Industrial Revolutions (Rifkin, 2011 and Rose, 2016 respectively). They, and many other authors such as Baldwin, (2016), Brockman, (2017), Cass (2014), Kelly, (2016), Leonard (2016) and Wood (2016), canvass many such technologies and note that the future may also be hard to manage anyway because many such technologies are barely under public control and will spin off a constellation of unexpected derivative technologies through blending, fusion and integration. In this way, several aspects of economy and society may evolve exponentially in line with Moore's Law, which accurately forecast the doubling in power of semiconductors every 18 months over the last 50 years. Many well-known authors have sought to imagine future economic trajectories over the medium to longer term with startling forecasts about work, skills, industries or growth and decline and where all this will take place. The list is a long one and includes Diamond (2005), Florida (2010), Rawlings et al. (2013), Stephenson et al. (2013), Cass (2014), de Waele (2014), Wood (2014), Brin and Bear (2015), Williamson et al. (2015), Ross (2016), Sundararajan (2016), Susskind and Susskind (2016) and Wadhwa and Salkever (2017).

To add to mounting uncertainty and complexity we will also likely face several increasingly contested issues. One is economic globalisation, to which one may add such global environmental issues as climate change. Another concerns the potential for rising conflict between sustainability viewed from ecological and societal perspectives (Diamond 2005). A third issue concerns widening economic disparities across most countries between rich and poor and the debate over what constitutes a fair approach to the division of national wealth and access to essential services in arenas like health and education. And, if we seek to sustain adherence to cultural traditions, the mixture becomes even more potent as this approach will likely collide with, and be overwhelmed by, the need for agile economic and social adjustment to emerging and immensely different opportunity sets. In this context, tradition is likely to play second fiddle to agility and willingness to discard the past.

In short, current notions of what constitutes rural sustainability may be largely inappropriate for tomorrow's world and be replaced by very different aspirations and processes of achieving them. To make things even worse, conceptualisations of sustainable ruralities and how we may go about achieving them could look very different across the spectrum

of spatial scales from the personal, to the local, regional, provincial, national, and global, potentially spreading major conflict between them, with no clear paths to resolution. What we can say is that power over such issues is steadily filtering upwards from regional to national and to global, placing pressure on local conceptualisation of sustainability.

Given such uncertainty about future trends, procedural complexity — including an increasing number of heavily interconnected variables, an increasingly strident contest of ideas, and often very different regional perspectives informed by local geography and resource bases, we cannot come up with any clearly defined definition of sustainability. Instead, we attempt lay all relevant issues on the table and suggest ways of handling them. It's also becoming clear that another layer of complexity is stalking our conceptualisation of sustainability: our cognitive biases, which lead to misperception of problems and solutions (see Kahneman, 2011 and Thaler, 2015). And Lawton (2017) extends their work into many further dimensions, all of which suggest that human rationality is severely compromised.

## 2. *Theoretical Insights*

Our approaches to this task is theoretical and conceptual. These, in turn, are multi-dimensional, commencing with an exploration of approaches to defining and managing environmental, economic, social and cultural sustainability and how these actually or potentially interact with each other at different rural spatial scales from the personal to the global. The potential importance of cognitive biases will also be assessed, as noted above. The second element in the analysis will be to canvas the multitude of processes and events that are likely to impact on our understanding of the many different dimensions of sustainability. Prominent among these, however, will be emerging and prospective technologies. Take farming for example, which is a prominent component of rural society. The range of forces potentially at work include genetics, hydroponics, vertical farming, recycling of organic waste, the emergence of the sharing and gig economies (see especially Sundararajan, 2016), big data, the use of robotics and drones, new approaches to irrigation, alternative energy supplies, virtual fencing, access to adequate venture and working capital, logistics and market access, global supply and demand dynamics, shortages in skilled labour, farm subsidies in competing countries, and so on. In short, just about every aspect of farm operations could be dramatically revised. These, in turn, will in all likelihood significantly affect the vitality, prosperity, amenity and quality of life in different rural regions in the future and in a constellation of different ways according to local geographies.

Parallel forces shaping retail, health, educational, professional, and environmental services will also dramatically reshape their spatial provision, and with them the well-being of rural residents and communities. The exact trajectory of events will likely vary spatially according to regional environmental quality, geographical accessibility, resource-bases, human and social capital, quality of infrastructure, entrepreneurship and business cultures, and the leadership styles and competences of civic, business and institutional leaders. Interestingly, two key themes that have received considerable recent attention include the sharing economy and the emergence of a gig working culture. Several of these additional dimensions have hardly ever surfaced in the Commission's deliberations

about sustainability, but they're a potentially critical omission given the massive array of literature emerging on how important business, government and community leadership in shaping the future (Le Merle and Davis, 2017; McAfee and Brynjolfsson, 2017). And the speed at which beneficial change occurs at particular locations or geographical scales will, in part, revolve around how well all those dimensions meld together. Another critical issue in discussions about sustainability is a demographic one. For example, many rural residents wish for population growth in their communities, but is this anywhere near as important as conceiving benign and sustainable development not in terms of numbers of people, but rather their average wealth and income. Resolute conflict between different conceptions of the present and future sustainability could sound the death knell of many rural communities. Instead, the currency of the 21<sup>st</sup> century will be creative, imaginative and conciliatory networking of the kind described by Alex Pentland in his excellent book on social physics (Pentland, 2014). And, true to Montaigne's philosophy, this will entail the mutual sharing of practical experiences (Montaigne, 1580).

This analysis will end with a discussion about our ability to define and deliver 'sustainability' in rural regions. Can this be a clearly defined or prescribed activity, or is it bound to be a noisy clash between interest groups seeking to promote their own ends and means. In part, this discussion will also hinge on the question of political leadership and its capacity to define desirable ends and widely acceptable means to deliver them. Briefly, and destructively, I would have to observe that virtually no members of our political classes in any country I've observed can either comprehend the issues I've raised above, define appropriate goals and strategies to obtain them, or offer the high quality leadership to win over apprehensive and fearful electorates. We should also recognise that the dynamics of all the processes discussed here are constrained by just about all the macro-economic, social security and environmental management settings of national and international agencies. Many of these themes are treated in detail by Sorensen (2015a, 2015b, 2015c, 2017).

### *3. Methodological Considerations*

Given the massive range of issues involved in the above themes, their complex interactions, limited and fast-ageing data, many future uncertainties about drivers and processes of change, and the lurking potential for chaos or tipping points, a key approach will be to assemble the variables in a series of diagrams, themselves interconnected. These will rely heavily on a large and wide-ranging literature dealing with technology, economy, society, rural and regional affairs, political and commercial leadership, public policy formation, and so on.

Moreover, the author has been working on these themes for decades focusing on a range of agricultural development issues, as a futurist, in his capacity as a fellow of the Regional Australia Institute (which deals with non-metropolitan development issues), and as a community development activist in the rural city of Armidale. He is also currently on an expert panel advising the Australian House of Representatives Select Committee on Regional Development and Decentralisation. Furthermore he works with Sydney's Centre for Independent Studies, a pro-market think-tank. And, moreover, in 2015 he was part of team that nominated Armidale (population 25,000) for the Intelligent Community of

the Year award run from New York. Out 450 entries world-wide, Armidale made the first cut of the Smart 21 alongside global leaders like New Taipei, Montreal and San Diego. So this paper brings together and integrates four decades of personal wide-ranging high-level research and consultancy experience, coupled with practical experience in 'doing' local development.

#### 4. *Results*

However, this theoretical and conceptual work will be accompanied by a variety data and forecasts, both world-wide and with a special focus on Australia, where the farm sector is technology-focussed, highly innovative, large-scale, profitable, and flexibly adaptive to market demands. Country towns, in turn, bear the impact of these changes... coupled with many others washing over rural economy and society. And the futures of different industries and communities could be highly variable depending on their locations, inherent resources, extent and form of innovative cultures, and luck. Some face long-term sustainability, while others could be relegated to the trash-can of history. Governments may be capable of helping to sustain some place's or region's futures; but equally nothing governments do might help place sustainability in other locations.

#### 5. *Apotheosis: Further Discussion and Analysis*

Much of the emphasis on sustainability has Malthusian overtones, namely that population growth is a constraint on finite resources (Malthus, 1803). But suppose that technology dramatically reduces the force of that argument in line with the work of Diamandis and Kotler (2012) who see not just very few impending constraints on the supply of food and energy but perhaps almost limitless expansion on the back of new technologies. If proved right, the outcome could be a complete revision of rural life across many parts of the world — environmental quality and amenity, agricultural products and production processes, the work we do and its financial rewards, recycling of ingredients, and so on. Since the future is arriving so fast and disruptively, my view is that we need to refocus our debates on sustainability to take on board a mountain of literature on all aspects of the future.

Especially interesting is the work of some psychologists who have re-written the basis of economic theory, including Kahneman (2011) and Thaler (2015) and who were Noble prize recipients in 2002 and 2017 respectively. I suspect that some of our attitudes to sustainability emerge from what Kahneman calls system 1 thinking — which are driven by often erroneous heuristics rather than system 2 thinking, which is based on rigorous theory and fact-based analysis. And, given that we prefer heuristics because of their simplicity we should maybe embrace Bhargava's (2017) style and philosophy of thinking differently. Thaler, in turn, also focusses on how governments might mould people's attitudes and opinions to deliver beneficial or sustainable outcomes. This theme has been taken up by such people as McAfee and Brynjolfsson (2017) or Le Merle and Davis (2017), both of whom address the crucial role of appropriate corporate cultures in creating successful business enterprises. It seems increasingly clear that both sustainable rural enterprises and attached communities will need such cultures to prosper in the future and both will look and function very different to what we currently find in rural space. Lurking in

the background, however, is the real possibility that the concept of sustainability has no clear and universally accepted definition. It is instead a plastic concept whose definition is contingent on local circumstance — including geographical conditions, the nature of the problem under discussion, technology and scientific knowledge, interest-group preferences, and so on.

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## 14. Thematic Villages: Between Strategies for the Multifunctional Development of Rural Areas and New Local Identities

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### *1. Introduction*

In Poland, as in other European countries the debate about changing rural space takes place within the international context of ongoing rural and urban changes, and of two key interrelated dynamics: globalisation and the increasing role and potential of consumption in the development of rural places (see Cloke and Goodwyn, 1992; Champion and Hugo, 2004). Consequently, since the beginning of the market economy in the 1990s, in Poland we have observed the emergence of a multifunctional rural regime which influences the rural landscape, of new non-productive functions in local economies and of new lifestyles. The parallel core processes within these transformations are the empowerment of local communities and thus reinforcement of social and territorial identities. The thematisation of villages, which has a relatively long history of both success and failure in local development (Rzeńca, 2015; Atkočiūnienė and Kaminaitė, 2017), reflects both the emergence of multifunctional rural areas and the search for new anchors of local identities.

The effects of socio-economic transformation and the European experience of Polish villages are now particularly visible in areas for many years considered to be problematic, mainly in terms of their socio-cultural aspects. Two such villages — Masłomęcz and Sierakowo Sławieńskie — are presented here as case studies.

The aim of the paper is to identify the practices adopted in achieving positive changes in the selected villages as a result of the mobilisation and coordination of their own resources and energy, creativity and the hard work of people, supported by various external incentives. The uniqueness of Sierakowo Sławieńskie and Masłomęcz residents' initiatives consists in their achievement of exceptional success as a result of strengthening the relationships between people and space. In both selected villages, the specific assets of the environment were identified to develop new elements within their cultural landscape, and new economic functions as new anchors of local identities, related to the original motif (Hobbits and Goths). Those original concepts constitute an extraordinary act of creation of the places and their adjustments to the needs of the local community and visitors. In both cases, the identification and use of specific resources (natural landscape and the history of the place) were of key importance, combined with important external incentives in the form of first process creators (experts) and then of realising the possibilities of financing the entire initiative (e.g. through EU funds).

## 2. *Theoretical Insights*

Local development, studied by social sciences since the 1960s, currently comprises numerous different aspects. The most important issues analysed in publications on local development include social organisation and activity, and their impacts on cultural landscape transformations. Nowadays, when territories participate in the free movement of goods, services and information, analyses of local development foundations focus on such issues as:

- The relations between the local and the supra-local (regional and global) functioning of societies;
- The impact of the territory (various resources) on the establishment of institutions (closeness and putting down roots); and
- The impact of social capital (e.g. knowledge and trust) on the success of activities.

Thematisation of space is currently a method, widely commented and described in literature and the media, to make the “place” (in this case a village) known on the wider scale through the development of theme spaces, amusement parks, cultural events and festivals (see Lengkeek, te Kloeze and Brouwer, 1997; Marková and Boruta, 2012; Blichfeldt and Halkier, 2014; Idziak, Majewski and Zmysłony, 2015). In a narrow sense, it is focussed on selecting a leitmotif for places, events or persons, which becomes the basis for creating tourist products and serves mainly for marketing purposes. In a broad sense, it is a model for development of local (in this case rural) communities providing the basis for acquiring, creating and developing local identities.

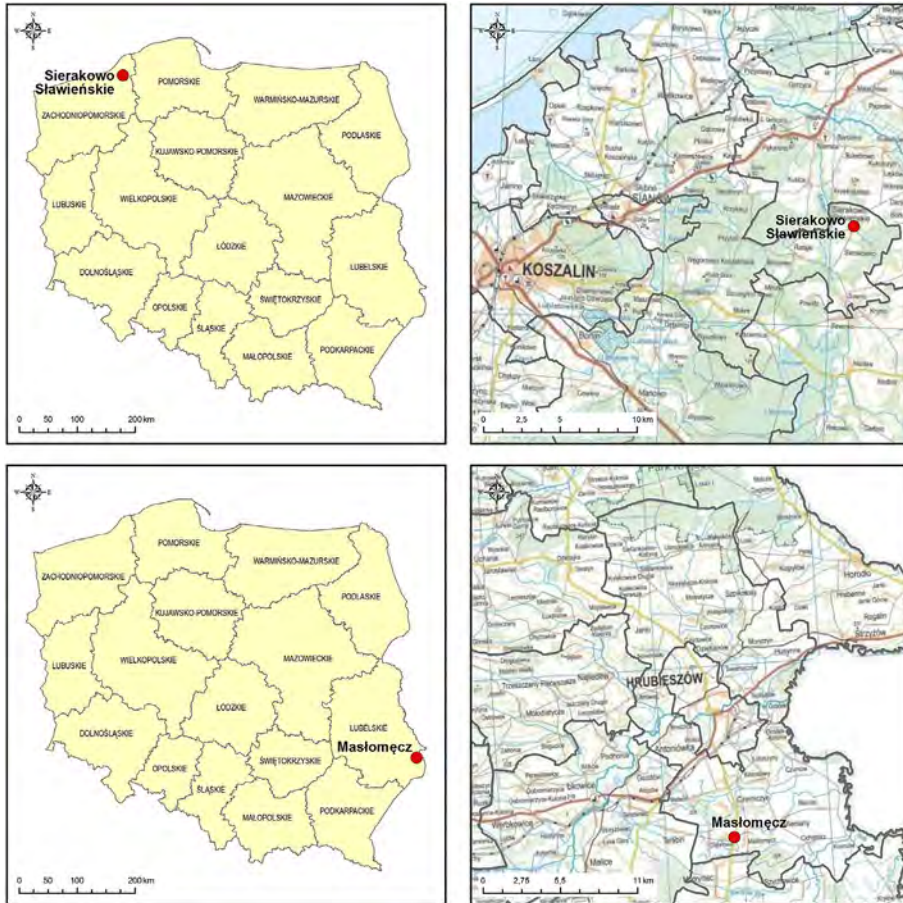
For some Lithuanian villages, Atkočiūnienė and Kaminaitė (2017) present a set of factors that have held back the development of thematic villages (e.g.: the lack of information and knowledge, weak thematic village leaders and their need to learn, lack of marketing tools, weak public relations, small numbers of the population showing an interest in rural thematic strategies) as well as drivers of their development (e.g.: development of crafts, strong local tourism organisations and providers of services, fostering folk traditions, presentation of culinary and cultural heritages). In Poland, Idziak (2008) and Idziak, Majewski and Zmysłony (2015) have examined the origins of the concept of thematic villages in creating new rural tourism experiences and explored the implementation of the concept. In these works, they also discuss the role of community involvement in the local development of rural areas.

## 3. *Methodological Considerations*

The essence of the problem presented in the paper is to identify those social activities focussed around a particular topic, the institutionalisation of these activities and their various cultural, economic and landscape effects. Two villages were selected, from over 50 active thematic villages in Poland, for this purpose.

The case studies present the two thematic villages, namely, Sierakowo Sławińskie (Zachodniopomorskie Voivodeship) and Masłomęcz (Lubelskie Voivodeship) (Figure 1), as examples of ongoing change in peripheral areas with difficult social environments and complicated histories. The villages share a common problem of post-war settlement of people from different parts of the country and their long and difficult adjustment to new living environments. The process of overcoming the cultural non-adjustment of the

Figure 1. Location of *Maslomęcz* and *Sierakowo Sławieńskie*. Source: Maps by authors based on [geoportal.gov.pl](http://geoportal.gov.pl) (accessed on 1/2018).



new population to these places has lasted for years, with its negative aspects involving destruction of cultural heritage due to a lack of awareness of its value, or simply the lack of knowledge and appropriate skills.

This paper is based on quantitative and qualitative data gathered both through field (observation, individual in-depth interviews, focus groups) and desk research (study of literature, documents on local development strategies). The multithreaded analysis on a local scale of a village and its environs has enabled us to present the anatomy of the actions undertaken to create the thematic Hobbit Village in Sierakowo Sławieńskie and the Goths' Village in Masłomęcz and to document their effects on the local communities, economies and spaces.

#### 4. Results

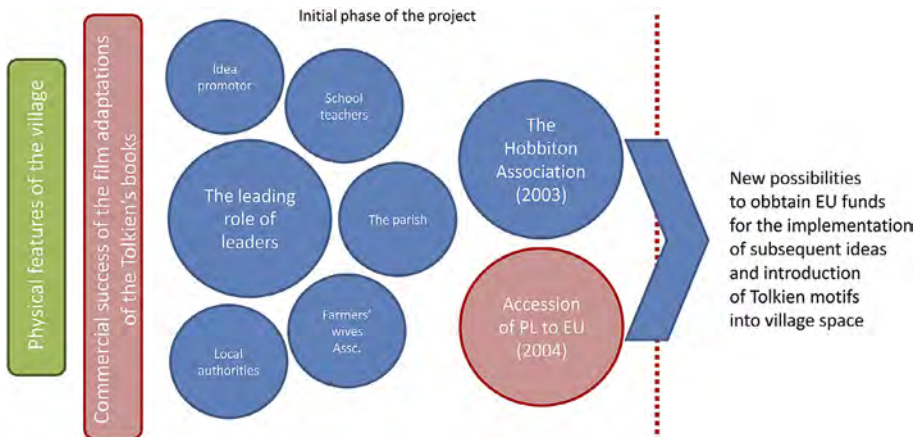
Changes in local communities of the case study villages were initiated by the activities of persons from outside the local environment, specialists in specific research fields, who were determined to transform local social and material resources into assets attracting people from outside the villages.

In Sierakowo Sławięńskie it was a sociologist who was fascinated by the possibilities of animating a local community around a particular leitmotif. The location of the village among forests, with numerous new trees (due to poor soils) in varied topographic conditions, and the presence of many interesting objects of cultural heritage, contributed greatly to building a space for Tolkien's stories, albeit adjusted to local conditions.

The idea to create the Hobbit Village was laid down in the Local Development Strategy in 2000 and was one of many such projects in Poland. The concept was largely an adaptation of ideas already implemented in other European Union (EU) countries. The relationship between searches for new functions for villages, and the existence of pre-accession support and funds available after Poland's accession to the EU, was an important element in launching the thematisation of rural areas.

In this process, a leading role was played by idea promoters, including the head of the parish primary school, the farmers' wives' association, and village authorities. Rapid establishment of the Hobbiton Association (2003) characterised the initial stage and enabled organisation of the group, with all its actors and their assigned functions and allowed them to apply for more significant funds to bring about changes in the village. The accession of Poland to the EU in 2004 provided new possibilities for obtaining European funds for the implementation of subsequent ideas and introduction of Tolkien motifs into the village and its surroundings based on the characteristics of the natural and cultural environment (Figure 2).

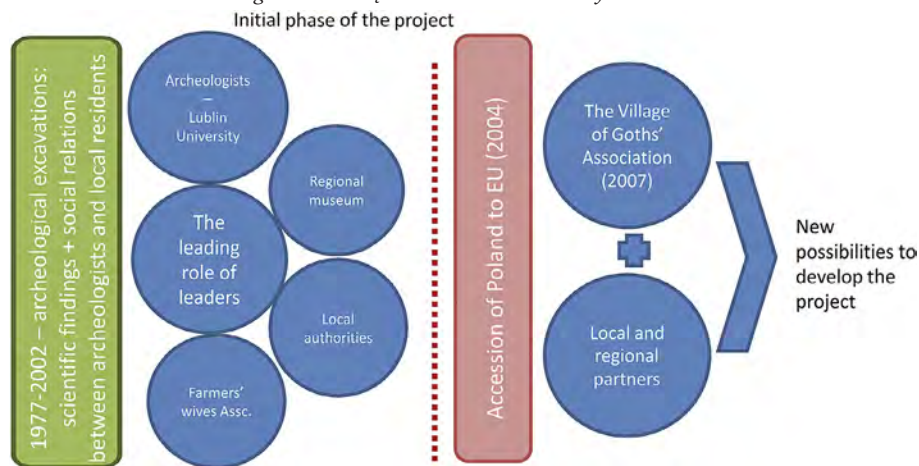
Figure 2. Anatomy of the actions undertaken to create a thematic Hobbit Village in Sierakowo Sławięńskie. Source: Illustration by the authors.



In the case of Masłomęcz, the turn in the life of the village took place in 1977 when archaeologists started excavations in Hrubieszów Valley. Between 1977 and 2002, they discovered a complex of Goth settlements and cemeteries from the 2<sup>nd</sup>-4<sup>th</sup> centuries. Initially distrustful of “strangers”, the residents of Masłomęcz slowly got used to the presence of archaeologists every summer. With time, every season of excavations ended in a common feast for the archaeologists and the local community. This tradition continues, and the Archaeological Feast is now the most important regular event organised in Masłomęcz by the Goths’ Village Association.

The Association was officially established in 2010, although the local community had become involved in the reconstruction and popularisation of the cultural and historical heritage of the region in 2002, in response to the winding up of the 25-year-long excavations. In effect, a partnership of the residents, NGOs and authorities was set up in the form of a Local Action Group, the Hrubieszów Association “Better Tomorrow”, that developed a plan for using the historical and cultural heritage of Goths for tourism purposes. In 2009, Masłomęcz was visited by representatives of the Swiss-Polish Cooperation Programme. Consequently, the authorities of Hrubieszów gmina received considerable financial support for the programme “From a vision to modern Gothania region management” whose purpose is to create a tourist brand for the entire region and to benefit the residents in economic terms (Figure 3). Actions such as the creation of a special curriculum devoted to the ancient history of the region in schools and the organisation of competitions on knowledge of the Goths were also important.

Figure 3. Anatomy of the actions undertaken to create a thematic Goths’ Village in Masłomęcz. Source: Illustration by the authors.



The institutionalisation of the undertakings that brought about the thematisation of both villages resulted in exceptional impacts, both social and economic, together with creation of new landscape forms. Both the Hobbit Village in Sierakowo Sławińskie and the Goths’ Village in Masłomęcz consolidated and renewed the local communities of these villages.

In Sierakowo Sławieńskie it was important to define a central place as a point of reference for the local community and for visitors following the Hobbit story. In a symbolic sense, the Sierakowo local community created a specific “place”, i.e. the Hobbit Village and annual events, the most important of which, the Hobbit Fair, attracts masses of people from Poland and abroad.

The local school building, which had closed down due to the declining number of pupils, was lent by the local authorities to the Hobbiton Association free of charge. On the one hand, it has become a monument connecting people with their past, since it restores memories of everything that happened there in the lives of several generations, and on the other hand it provides hope in that it continues to serve the village residents and supports their actions in creating new identities based on the idea of a “Hobbit village”. The creation of a thematic village played a similarly positive role in saving a historic blacksmith’s shop from destruction and extending the awareness of the extraordinary Cistercian Order and its culture-forming role in the organisation of Pomeranian land in the Middle Ages as part of the wider project “Social economy on a Cistercian trail”. This action triggered social interest in the village’s past, in the valuable buildings in the village, in the uniqueness of their cultural heritage and of the need to preserve it.

Similarly, the Goths’ Village is central to the generation of organised tourist traffic to Masłomęcz and an important factor in stimulating the village’s multi-functional development. The open-air museum, around which a new centre of the scattered settlement continues to develop, is filled with new facilities and events. It is an extraordinary example of grassroots actions and the social stimulation of village residents who now identify with the Goth tribe who lived there 1,700 years ago.

The Goths’ Village development has been accompanied by establishment of agri-tourism farms where, in addition to accommodation and a variety of services (bike and ATV rental, horse riding), one can buy and taste home-made preserves made from local products. Vegetables, mushrooms, fruit, juices, honeys and fruit liqueurs delight with their colour and taste. The Masłomęcz shop, located next to the Goths’ Village, sells several kinds of Gothic beer with labels featuring drawings of a Gothic cottage and the symbol of Gothania.

##### *5. Discussion and Conclusion*

The observation of the processes of broadly conceived rural renewal through the thematisation of both villages presented in the paper allows for the identification of two essential cultural contexts for the creation and use of rural space (Wójcik, 2017). The first of these is associated with the fulfilment of the endogenous functions — that is, the maintenance of the memory and the cultural identity of the villages. The second context relates to the development of the exogenous functions, especially tourism and recreation, which, as hoped for and even expected by numerous municipal authorities, are supposed to contribute to an economic strengthening of the local self-governing bodies, to promote the respective areas, and to lead to multi-functional development (and, consequently, to improvements in the quality of life of the inhabitants). The uniqueness of both thematic villages presented in this paper consists in their having achieved exceptional results as a result of the strengthening of the relationships between people and space.

Adjustment to “place” in the process of thematisation of space has resulted from the bonding of the local communities with their immediate environments, through the analysis and interpretation of the existing conditions with regard to the planned changes. Then, the specific assets of the environment were identified to develop further local stories, related to the original motifs. Those original concepts constituted an extraordinary acts of creation of the places and their adjustment to the needs of the local community and visitors. In both cases, the identification and use of specific resources was of key importance, combined with important external incentives in the form of first process creators (experts) and then the realisation of the possibilities of financing the entire initiatives (e.g. through EU funds).

External specialists provided the initial incentives to form groups and to impart new ideas. This seems to confirm the prior conclusions of Idziak, Majewski and Zmysłony (2015) who claimed that expert external assistance might be necessary at key stages, especially by providing professional knowledge of markets and marketing. Then local institutions became important in stimulating and integrating social visions. Formalisation of these institutions, and imbuing them with legal and organisational dimensions, led in consequence to the development of actual development strategies, and the gradual creation of physical and organisational structures for implementing these visions and of reproducing thematic activities, especially in the form of cyclical cultural events.

Among the social effects of the thematisation of rural spaces observed in both cases were: (i) development of social interest in the villages’ pasts; (ii) the development of new skills and social relations; and (iii) the development of strong local and regional identities. From the perspective of local economies, in both cases, thematic villages were the trigger for multifunctional development and a means of developing new economic activities (entrepreneurship), local products and events. The actions undertaken in both case study villages also made visible footprints on their landscapes bringing new forms and architectural styles as well as new “central places” (centres) to both villages.

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## 15. Rural Restructuring in Metropolitan Suburbs: The Case of Huangshandian Village (Beijing)

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### 1. Introduction

To some extent, rural restructuring is related to the rural recession along with the globalisation and urbanisation (Marsden et al., 1990; Hoggart and Paniagua, 2001; Loblely and Potter, 2004; Woods, 2005; Long and Woods, 2011; Tu et al., 2017). The rural development in metropolitan suburbs have been deeply affected by the radiation of metropolis and the drive of rural non-agricultural industries. The functions of rural territories in metropolitan suburbs have been gradually evolved under rapid urbanisation since the turn of the new millennium (Liu, Liu and Chen, 2011), and the socio-economic morphology and spatial pattern in the rural areas are undergoing dramatic restructuring (Zhao, 2010). To cope with the changes and outcomes, it is urgent for the local participants to take actions timely to restructure rural space, economy and society through integrating elements, recombining structure and optimising function in rural territory system.

The restructuring of rural space, economy and society is directly or indirectly in relation to land use, finance, social security and other institutions of resources allocation (Long et al., 2016). As the spatial carrier of human socio-economic activities, land use has been playing an important role in the process of rural restructuring (Long, 2014). Accompanied by the accelerated restructuring driven by “increasing vs. decreasing balance” land-use policy (Long et al., 2012), parts of the rural restructuring process in China may be hampered due to current inappropriate land use policy and system. However, the innovations in related policy and system of land use can promote rural restructuring and related capacity building aiming at achieving a sustainable development in the rural area (Long and Qu, 2017).

Based on the theoretical research of rural restructuring (Long et al., 2016; Tu and Long, 2017), this paper takes the Huangshandian village in the suburb of Beijing as a case study area to carry out an empirical study on the process of rural restructuring under rapid urbanisation in metropolitan suburbs of China, by adopting method of the participatory rural assessment (PRA) and geographic information system (GIS) technology. The aims of this paper are as follows:

- to reveal the process of economic restructuring, spatial restructuring and social restructuring in the Huangshandian village;
- to explore the interactions of economic restructuring, spatial restructuring and social restructuring; and
- to put forward some suggestions on land use policy and institutional innovation aiming at optimally allocating the land resources and promoting the rural restructuring in metropolitan suburbs.

The Huangshandian village is located in the Zhoukoudian town, Fangshan district of Beijing, southwest of the metropolitan area of Beijing (Figure 1). Based on the advantages of resources and location, the spatial patterns, economic forms and social relations in Huangshandian village have undergone major changes since 2000. The multi-values of rural areas have become increasingly prominent, the living space has been gradually intensified and the production space has further expanded, as well as self-government organisations, infrastructures and public services successively improved. The paths and modes of rural restructuring in Huangshandian village may provide a good reference for the rural development in metropolitan suburbs of China, and it is of great significance to research the process of rural restructuring and its implications for land use policy to promote spatial restructuring in this kind of village. Therefore, the paper regards it as a typical case study of rural restructuring at village level under rapid urbanisation pressures in metropolitan suburbs of China.

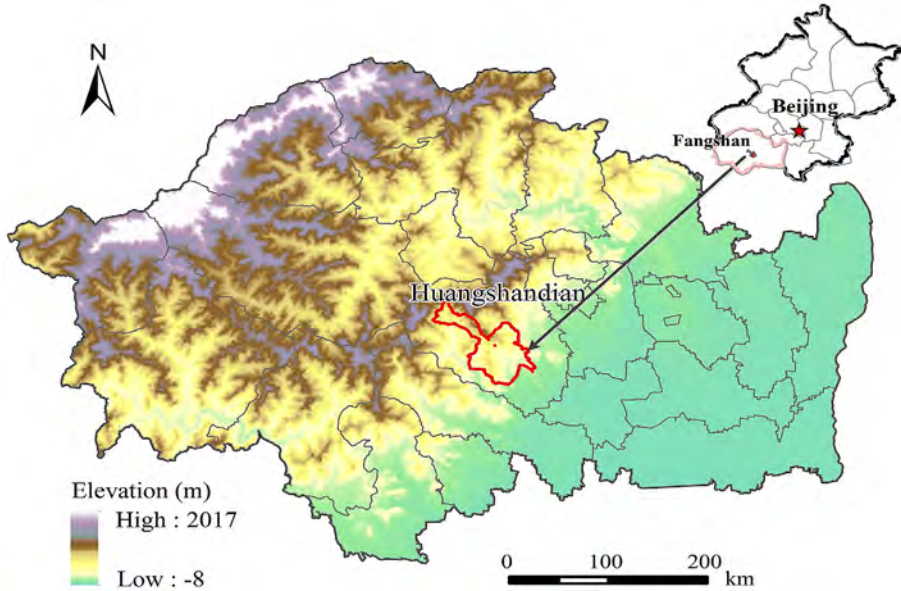
## 2. *The Theoretical Framework of Rural Restructuring*

Rural space is an open system with certain elements, structure and function. With regard to the elements, it contains natural resources endowments, geographical conditions, economic base, human resource, cultural customs, etc. (Long et al., 2016). Structurally, rural territorial system is composed of a kernel system and external system (Long et al., 2016; Tu and Long, 2017). Generally, the kernel system includes natural resources, ecological environment, economic development and social development (Wu, 2001), which determine the path of rural development; and the external system is concerned with regional development policies, industrialisation and urbanisation development levels (Zhang and Liu, 2008), and plays an important role in promoting or hindering rural development. Under the background of rapid urbanisation, the rural space continuously exchanges the material, energy and information with external urban system in China (Tu and Long, 2017), and the functions of rural space include the aspects of living, production, ecology and culture, have inevitably evolved.

In essence, rural restructuring is a process of reshaping socio-economic morphology and spatial pattern in rural territory in response to the changes of elements both in the kernel and external system of rural development, by optimally allocating and efficiently

Figure 1. Location of the Huangshandian village in Beijing.

Source: Authors' design and production; base map downloaded from Resource and Environment Data Cloud Platform (Chinese Academy of Sciences).



managing the material and non-material elements in the two systems. It aims at ultimately optimising the structure and promoting the function within rural territorial system as well as realising the coordination of structure and complementarity of function between urban and rural territorial system (Tu and Long, 2017).

There is a close relationship between rural restructuring and rural evolution (Long et al., 2016; Tu and Long, 2017). The process of rural evolution not only refers to the situation of positive promotion, but also means the negative degradation, including slow progress, leap development, transient recession, rejuvenation and other statuses. Rural restructuring is a positive evolution process, which generally contains two types of cases: for under-developed rural areas, it is a qualitative change process from a non-benign state to a benign state; for developed rural areas, it is a process of enhancing the quality of development by adapting to the external demands and integrating critical internal resources (Tu and Long, 2017). Generally, the socio-economic development is the main storyline of rural space evolution, and as the mirror and spatial carrier of socio-economic development, the quantity and structure of land use would be inevitably changed along with the socio-economic development (Long, 2014). Therefore, the contents of rural restructuring include spatial restructuring, economic restructuring and social restructuring (Tu and Long, 2017).

### 3. Methodological Considerations

Based on the field survey carried out in the Huangshandian village and the methods of PRA and GIS, we obtained socio-economic data and land use data to reveal the

process of rural restructuring from the aspects of economy, space and society. As for the socioeconomic information, the method of PRA was adopted by interviewing local government officials, village cadres and ordinary farmers. Additionally, relying on the PRA and GIS technology, land use information was collected by interpreting high resolution (0.78 m) aerial photographs taken in October, 2015 at a scale of 1:2000, which were downloaded from Google Earth, so as to analyse the spatial restructuring in the aspects of living, production and ecology in Huangshandian village. The technological procedures contain pre-interpretation of satellite images, making land use status quo maps, reversal information of historical land use as well as verifying land use maps and statistical data of various land use types.

#### 4. Results

##### 4.1. Economic Restructuring

Since 2000, relying on mineral resources, tourism resources and regional advantages (being adjacent to the capital), the industrial development in the Huangshandian village has experienced different transformations from traditional agriculture to primary industrial processing and eco-tourism. At present, the function of traditional agricultural production is declining gradually, and industrial production, ecological culture and other multi-functional value have successively appeared.

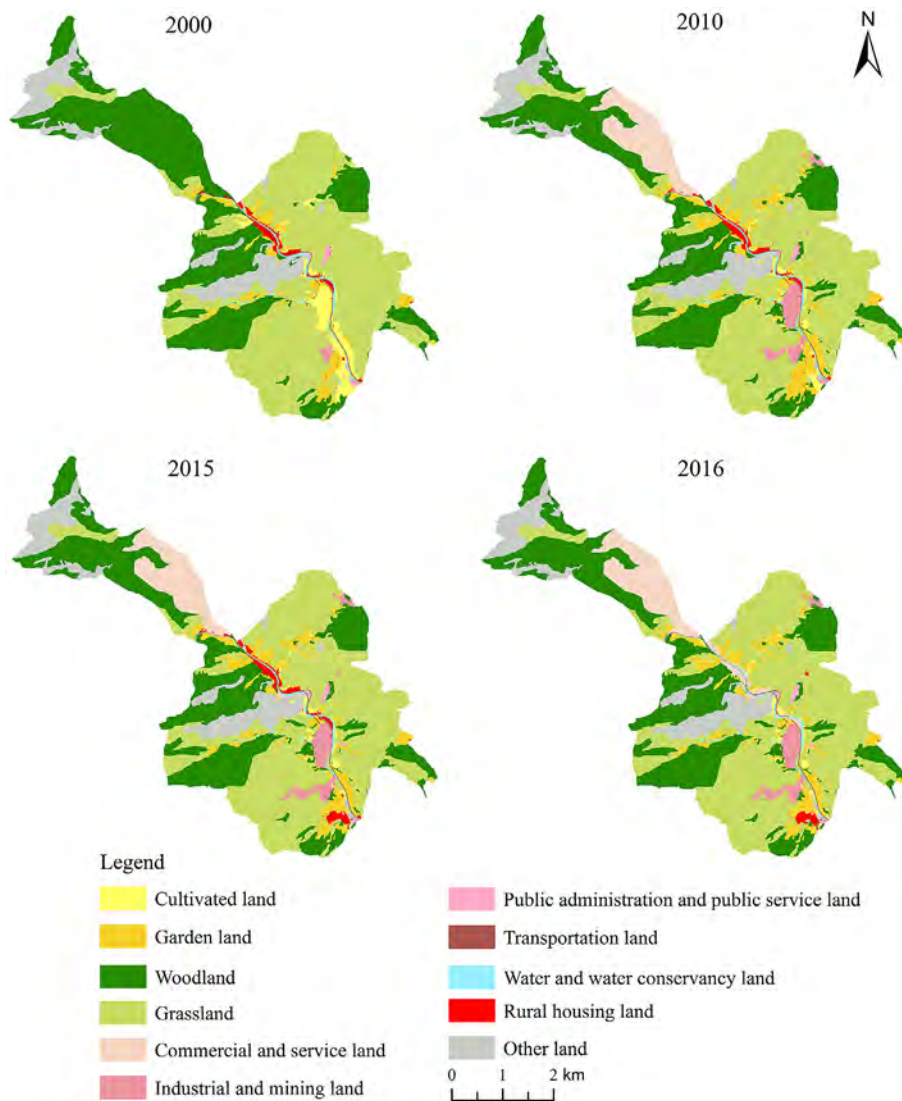
##### 4.2. Spatial Restructuring

Accompanied with the evolution and restructuring of village socio-economic morphology, the rural space of the Huangshandian village has accordingly experienced tremendous changes in the aspects of quantity, structure and pattern (Figure 2). As for living space restructuring, the village began to build a new community outside the village in 2013, which occupied 9.8 ha, included 35 residential buildings, and simultaneously was equipped with water, electricity, gas, roads, heating and other supporting infrastructure, and the old homesteads as well as streets and lanes in the village could be used to develop tourism industry, and the living space reduced by 33.9%. In terms of production space, compared with the slight decrease of agricultural production space, agricultural land management is gradually becoming large-scale and centralised, industrial and mining land expanded quickly, parts of the ecological and living spaces have evolved into tourism service space. With the expansion of production space, the area of ecological space has relatively reduced, but the ecological function has been strengthened to some extent due to the national policy and local measures concerning ecological environment construction, and the production-ecological composite space has massively risen.

##### 4.3. Social Restructuring

To cope with the social issues accompanied with the urbanisation and industrialisation, such as the downfall of organisation system and lack of infrastructure and public services, the Huangshandian village has carried out rural social restructuring in recent years through establishing the autonomous organisations and implementing a series of projects to improve infrastructure and public services.

Figure 2. The evolution of land use patterns in the Huangshandian village during 2000-2016. Source: Authors' design and production based on field survey data.



## 5. Discussion and Conclusion

### 5.1. Suggestions for Innovations of Land Use Policy Aiming at Promoting Rural Spatial Restructuring

As the carrier of socioeconomic development, land and its utilisation play an important role in the process of rural economic and social restructuring. While the effective implementation of spatial restructuring is closely related to a series of land policies and

institutions, which not only hinder or promote the practice of rural restructuring via influencing the allocation of production factors, but also have been constantly adjusted and corrected along with the practice of rural restructuring. To cope with the changes of “elements-structure-function” in metropolitan suburb of rural China, the following proposals on land use policy and institutional innovations should be paid more attention for the purpose of optimally utilising the land resources and promoting the rural spatial restructuring.

- Accelerating the institutional framework design of rural land transfer.
- Exploring the tourism land management system adapting to the new pattern of rural economy.
- Pushing forward the re-use mechanism of abandoned industrial and mining land.

## 5.2. Conclusion

Since 2000, the Huangshandian village has experienced substantial industrial transformations. The mainstream economic activity (traditional agriculture) has shifted to industries of mining and tourism services. The function of traditional agricultural production is declining gradually, industrial production, ecological culture and other multi-functional value have successively appeared. With the evolution of socioeconomic morphology, compared with the decrease of the living space, the production space has gradually expanded, the ecological space has declined slightly, and the production and ecological spaces tend to be combined along with the development of tourism.

The practice of rural restructuring in the Huangshandian village shows that, economic restructuring, spatial restructuring and social restructuring are mutually reinforced and restrictive. Economic restructuring plays a leading role in the process of rural restructuring, spatial restructuring is of particular significance to enable socio-economic development, and the social restructuring is the support system for rural development.

Aiming at optimally allocating the land resources and promoting the practice of rural restructuring, the related suggestions on land use policy and institutional innovations should be paid more attentions from the aspects of accelerating the institutional framework design of rural land transfer, exploring the tourism land management system adapting to the new pattern of rural economy and pushing forward the re-use mechanism of abandoned industrial and mining land.

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## 16. Métodos cualitativos para investigar la innovación social

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### *Qualitative Methods to Research Social Innovation*

Social innovation has become a popular field of research in academia but more empirical evidence is needed. This paper focusses on a methodological framework to study social innovation. Firstly, social innovation is defined from a territorial and rural development perspective. Secondly, a qualitative method is developed on three premises: territorial approach, the need of primary data and the importance of participation. The method includes three stages (initial mobilisation of stakeholders, field work and facilitation) and emphasises the role of personal interviews, participant observation and focus groups. Finally, on the basis of a research project results, we discuss both strengths and weaknesses of the method.

### *1. Introducción*

La innovación social se ha erigido como un campo popular de estudio para la academia y más allá de esta. No obstante, la insuficiente acotación teórica del término impide su eficaz incorporación en las políticas públicas. En este sentido, gran parte de la academia apela a mayores evidencias empíricas que expliquen el funcionamiento de estos procesos y su impacto en el territorio. Este trabajo se inicia con un marco teórico sintético sobre la innovación social desde el enfoque del desarrollo territorial y con perspectiva ruralista. A continuación, como principal objetivo, se presenta un marco metodológico cualitativo para la investigación empírica de la innovación social. A modo de conclusión, se discuten sus principales fortalezas y debilidades.

### *2. Innovación social. Un —nuevo— enfoque en los estudios de desarrollo territorial*

La innovación representa un concepto fundamental en el desarrollo regional y rural europeo (Esparcia, 2014). Por un lado, en el campo de las actividades productivas la presión hacia la innovación responde al desafío de incrementar la producción de una forma sostenible, así como de impulsar las economías rurales (Maye, 2013). Por otro lado, en el ámbito de la política regional, la innovación se debate, entre otros, en términos de su potencial para activar un crecimiento y una especialización inteligentes (European Commission, 2011).

Pero, ¿a qué nos referimos cuando hablamos de innovación? Según la RAE, la innovación es la creación o modificación de un producto, y su introducción en un mercado. Esta definición, centrada en lo económico y lo tangible, es ampliada en el Manual de Oslo (OECD y EUROSTAT, 2005), el cual introduce la innovación en los ámbitos de proceso, comercialización, métodos organizativos o en las relaciones externas de la empresa. Sin embargo, se mantiene la orientación económica y empresarial de la innovación. ¿Existe la innovación más allá de las fronteras de lo económico? ¿Son necesariamente los agentes empresariales los protagonistas de la innovación?

La innovación debe entenderse como una idea, práctica u objeto que es percibido como nuevo para un individuo u otro tipo de unidad de adopción, ya sea una empresa, una institución pública, una asociación u otro colectivo de una comunidad (Rogers, 1983). En este sentido, la innovación ha sido estudiada a partir de las dimensiones económica y tecnológica. La presencia de «lo social» en estos procesos de innovación goza de aceptación, especialmente en la literatura de los modelos de innovación territorial. Sin embargo, a pesar de la atención a los mecanismos sociales que hacen posible la innovación, se mantiene un sesgo económico y de mercado y un uso utilitarista circunscrito al desarrollo económico (Moulaert y Nussbaumer, 2005). Economic analysis and policy have stressed the role of innovation and learning as processes feeding economic restructuring and leading to improved competitiveness of firms, sectors, regional and national economies. This ‘innovation’ in economic discourse, after almost 20 years of unilateral supply-side economics, meant a clear recognition of the analytical and policy value of evolutionary economics and its work on innovation, adaptation and learning of firms and other economic institutions within regional and national (innovation).

La evolución teórica de los modelos de innovación territorial nos lleva hacia un nuevo paradigma, el de la innovación social. El apogeo en su uso atiende a un fenómeno-respuesta de doble vertiente:

- Teórica: crítica y superación de la innovación exclusivamente tecnológica y económica.
- Pragmático-coyuntural: respuesta colectiva a un contexto de crecientes desafíos económicos, sociales, políticos y ambientales.

Desde el enfoque del desarrollo territorial, la innovación social es protagonizada por la comunidad y los actores territoriales. Supone la transformación de las relaciones sociales, con una relevancia prioritaria de la vertiente de proceso y los intangibles. La innovación social significa innovar en la propia sociedad, esto es, cambiar los comportamientos, las normas y los valores entre los actores territoriales a través de nuevas fórmulas de colaboración y la acción colectiva, de nuevos mecanismos de gobernanza e instituciones, en favor de la satisfacción de necesidades humanas y el desarrollo comunitario (Moulaert et al., 2005; Neumeier, 2012; Copus, 2016). La innovación social es una llamada a la inclusión en los procesos de innovación y desarrollo territorial. Se produce a través de la actuación de los agentes del territorio convencionales (gobiernos, empresas, universidades y centros tecnológicos) (Estensoro y Zurbano, 2010), pero también, mediante la participación de otros actores de la comunidad (organizaciones sociales, entidades de la economía social, organizaciones vecinales, agrupaciones de productores, sector educativo, etc.).

Aunque la literatura sobre innovación social se desarrolla primero a partir de experiencias en ámbitos urbanos, desde los estudios ruralistas también se ha prestado una creciente atención (Bock, 2012; Neumeier, 2012). La innovación social, en cierto modo, da continuidad a las investigaciones sobre capital social y dinámicas rurales (Esparcia y Escribano, 2014), en tanto que se presenta como una práctica vinculada al grado de confianza, reciprocidad y los valores-normas compartidas entre los actores de una sociedad. A su vez, tiene capacidad para incrementar el capital social y promover nuevas innovaciones mediante el fortalecimiento de las capacidades individuales y colectivas (BEPA, 2010; Bock, 2012). Sin embargo, la desarticulación económica y social existente en algunas áreas rurales desfavorecidas no hace posible el surgimiento de innovaciones sociales de forma equitativa. En ocasiones, el capital social es demasiado débil para activar la colaboración y acción colectivas sin antes promover las bases para ello (Copus et al., 2017). En este contexto, el apoyo institucional, las influencias locales y extralocales, y los espacios intermedios entre las dinámicas ascendentes y descendentes son especialmente pertinentes para la promoción de la innovación social (Bock, 2016; Bosworth et al., 2016).

### 3. Una propuesta metodológica para el estudio de la innovación social

El presente apartado expone y analiza una propuesta metodológica para la investigación de la innovación social. Esta propuesta ha sido empleada en el estudio de ocho proyectos socialmente innovadores en dos casos de estudio de áreas LEADER (Serranía Suroeste Sevillana e Ibiza-Formentera) y con más de 90 entrevistas realizadas. Dicha investigación se encuentra en fase de análisis de la información y carece de resultados definitivos en términos de innovación social. No obstante, la finalización del trabajo de campo nos permite exponer y evaluar el método aplicado en la recogida de datos, el cual se fundamenta en las siguientes premisas:

- Enfoque territorial: nos fijamos en territorios entendidos como áreas de desarrollo integrado (Moulaert, 2002), a partir de estudios de casos en los cuales se analizan las dinámicas socioeconómicas, las trayectorias y los diferentes proyectos en los que la innovación social está presente en grados dispares. En un entorno rural, los territorios de estudio que más se aproximan a nuestro enfoque son aquellas áreas LEADER donde la homogeneidad territorial entre programas europeos se ha mantenido estable.
- Datos primarios: el estudio de la innovación social tiene una estrecha conexión con el contexto local, con la escala micro en el epicentro. A este nivel, la existencia de datos secundarios es escasa y exige la recolección de datos primarios comparables.
- Métodos participativos: la investigación de la innovación social no puede reservarse únicamente al ámbito académico y debe, en la medida de lo posible, integrar y orientarse a los actores. Esto se establece con una doble función: a) co-producción de marcos conceptuales y métodos de investigación; b) impacto de la investigación, más allá de la academia, en los proyectos de innovación social y el territorio.

Las premisas anteriores confluyen a lo largo del proceso investigador que se detalla en los siguientes párrafos, el cual se divide en tres etapas: a) movilización inicial de actores; b) trabajo de campo prolongado; c) dinamización y retorno. La etapa inicial de movilización de actores se subdivide en dos sub-etapas. La primera supone el trabajo conjunto investigadores-técnicos del grupo de acción local (GAL) para la delimitación y acuerdo de los objetivos de la investigación, así como para la elaboración de una primera muestra discrecional de proyectos y actores que se asocian a la innovación social. Para ello se preparan materiales y se realizan diversas reuniones. La segunda sub-etapa conlleva la organización de un taller con dicha muestra de actores, con los siguientes propósitos: a) presentar el estudio y su interés; b) construir lenguaje compartido sobre los conceptos de desarrollo territorial, capital social e innovación social; c) debatir y priorizar qué proyectos del territorio se van a estudiar en profundidad; d) generar la confianza indispensable para el excelente desarrollo del trabajo de campo.

La segunda etapa implica una estancia prolongada en el territorio para la realización del trabajo de campo. A lo largo de este periodo se emplean, fundamentalmente, dos técnicas cualitativas: la entrevista personal y, de forma complementaria, la observación participante. Para la implementación de la entrevista dividimos los actores en dos grandes grupos: actores internos (participan activamente en el funcionamiento del proyecto) y actores externos (colaboran puntualmente o están afectados/relacionados con el proyecto). A su vez, los actores internos los podemos dividir en dos: actores internos principales (caras visibles, impulsores y protagonistas del proyecto) y actores internos secundarios (otros actores internos). Las entrevistas son semiestructuradas y con una duración promedio de 60 minutos. Se elabora un guion de preguntas estándar para todas las entrevistas, aplicado especialmente en aquellas dirigidas a actores internos principales. A continuación, con una visión global del funcionamiento del proyecto a partir de las entrevistas con actores internos principales, se incluye un bloque adicional (bloque personalizado) de preguntas adaptadas a cada entrevistado con el fin de completar la información sobre el proyecto, el rol determinado de cada actor u otros aspectos pendientes. Esta tipología de entrevista nos ofrece la flexibilidad necesaria para plantear nuestros temas clave según las características de cada persona entrevistada y naturaleza del proyecto (Valles, 2002).

El cuestionario de las entrevistas recoge preguntas sobre el origen del proyecto de innovación social (motivaciones, objetivos, impulsores, estructuras, etapas y acontecimientos clave, etc.), los detalles de su implementación (actores, acciones principales y actividades paralelas, papel a nivel de organización, papel a nivel de actor, motivaciones personales, relaciones con otros proyectos, experiencias previas, recursos empleados, sostenibilidad, etc.), los resultados (outputs tangibles, impactos a largo plazo, replicabilidad, etc.) y preguntas de conclusión y valoración crítica (influencia de las condiciones locales, factores de éxito, factores de bloqueo, relación institucional, etc.). Finalmente, se incluyen cuestiones para complementar la caracterización de la persona entrevistada (edad, municipio de nacimiento, formación, trayectoria laboral, movilidad geográfica, actividades e intereses en tiempo libre, participación activa en entidades asociativas y políticas, etc.).

Las entrevistas se complementan con la observación participante. Esta técnica ayuda a perfilar mejor el escenario social real en el que se desarrollan los proyectos, mediante nuestra presencia y participación en el mismo. Con ella se recogen nuevos datos sobre el desempeño de las organizaciones en el día a día, las interacciones entre actores del territorio en un ambiente no formal, etc. A modo de ejemplo, la Tabla 1 expone algunos casos de nuestra investigación en los que se ha empleado la observación. En todos estos ejemplos, se han tomado notas de campo, configurado un diario de investigación y fotografiado los escenarios más interesantes. Uno de los outputs principales de la observación reside en la generación de confianza investigador-actor, la cual contribuye también a la efectividad del resto de técnicas cualitativas (DeWalt y DeWalt, 2002).

Tabla 1. Ejemplos para la observación participante. Fuente: Elaboración propia

Escenarios para la observación	¿Qué observamos?
Curso sobre producción agrícola organizado por una asociación de productores ecológicos	Interacción entre actores de la asociación Conversaciones informales Nivel de participación de cada actor Preguntas que realiza cada actor
Inauguración de un centro especial de empleo	Interacción entre actores de diferentes entidades sociales Interacción entre actores sociales e institucionales Información primaria sobre la configuración del propio centro
Reunión de una mesa de turismo comarcal con agentes territoriales	Papel institucional en la organización de la reunión Temáticas que se tratan Interacción entre actores del territorio Conversaciones informales Nivel de participación de cada actor Preguntas que realiza cada actor Organización física de la reunión y de sus asistentes
Feria agropecuaria	Interacción entre actores de diferentes proyectos Actividades y ubicación de cada organización/proyecto Asistencia e interés del público en cada organización/proyecto

La tercera etapa de la propuesta metodológica que planteamos se lleva a cabo en un estadio avanzado del trabajo de campo y con una serie de resultados preliminares sobre cada proyecto de innovación social. Se trata de contribuir a la dinamización de los proyectos de innovación social analizados y al surgimiento de nuevos. Con este fin, se convoca un taller con el GAL y actores entrevistados. En esta sesión se diseñan metodologías activas para la creatividad social (mapas sociales, matrices de actores, intercambio de roles, etc.) (Villasante, Montañés y Martín, 2001), con el fin de discutir problemáticas y plantear soluciones en los proyectos estudiados y de promover nuevas colaboraciones entre actores territoriales para la puesta en marcha de proyectos socialmente innovadores. Con el mismo objetivo, se conforman *focus group*, los cuales

facilitan el estudio de la interacción entre los participantes y, en consecuencia, la generación de nuevas ideas y conexiones que en una entrevista semiestructurada individual no siempre son posibles.

#### *4. Fortalezas y debilidades del método*

En este apartado trataremos de explicar cuál ha sido el resultado y funcionamiento del método anterior en nuestra investigación. Para ello, nos ceñiremos a la discusión de las tres premisas transversales del método. La primera de las premisas se pone de manifiesto a través de nuestra investigación, esto es, la estrecha vinculación de los procesos de innovación social con el territorio, especialmente en lo que se refiere al principio de las trayectorias dependientes y la *micro-agency* (Moulaert et al., 2005). De este modo, una aproximación integral al territorio confiere una alta comprensión de los proyectos que se investigan. A su vez, el estudio de múltiples proyectos en un mismo territorio permite una penetración total en este último. El investigador adquiere un bagaje idóneo para explicar las dinámicas territoriales y el porqué de los procesos socialmente innovadores. Sin embargo, no todos los proyectos de un territorio alcanzan una transformación social exitosa, hecho que, en todo caso, también es de interés para la investigación.

La necesidad de datos primarios, como segunda premisa, se atiende mediante procesos cualitativos. La recolección de datos cuantitativos es más compleja en estos proyectos e insuficiente para explicar los procesos de innovación social. Sin embargo, los métodos mixtos parecen el horizonte más completo para la investigación en este campo (Secco et al., 2017). En este sentido, el Análisis de Redes Sociales se revela de gran utilidad para la medición de los cambios en las relaciones sociales y la composición de un análisis más completo de la información cualitativa. Por último, los métodos participativos han significado un auténtico contrapunto. A pesar de las diferencias territoriales entre casos de estudio, allá donde la implicación del equipo técnico del GAL ha sido mayor se ha conseguido una mejor participación de los actores, hecho que repercute en la calidad e impacto de la investigación. Por contra, la participación exige de un mayor esfuerzo al investigador y unas precondiciones en el territorio que la hagan factible. Con todo, es conveniente un nuevo rumbo en los estudios sobre desarrollo territorial hacia técnicas transformadoras. Un ejemplo es el de la investigación-acción, esto es, la facilitación real de procesos de innovación y cambio socioeconómico a partir de la intervención directa y el trabajo conjunto de la academia y los actores territoriales (Karlsen y Larrea, 2015).

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## 17. Multi-Local Living by German Population in Tyrol (Austria)

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### 1. Introduction

Today, people's movements are frequent even for a day, a month, a year, and a lifetime, and the distance of movements is also longer. In recent years, increasing frequency and distance of movements have been understood as increases in mobility (Canzler, Kaufmann and Kesselring, 2008; Viry and Kaufmann, 2015). Mobility has increased involving rural areas in Europe, moving from city to rural areas (Hedberg and Carmo, 2012).

These movements are seamless and diverse, and they range from rural tourism consisting of temporary visits to rural areas on weekends, residential tourism consisting of seasonal visits, residing in some regions by having multiple living bases, and rural migration with various purposes (Janoschka and Haas, 2014). To evaluate the influence of visitors to rural areas on rural areas and to consider measures to promote migration to rural villages, these various types of movement should be classified according to attributes, purposes, actions, visits, etc. of visitors.

This report covers the case in Tyrol, Austria, which is located in the Alps and accepts diverse visitors from outside the region. Also, among the various kinds of movement, we will focus on stay using a second house, which is supposed to have a strong impact on the receiving area, with the purpose of clarifying how people with what attributes use the second house and how they influence the local area.

### 2. Theoretical Insights

As mentioned above, the movement from city to rural areas is diverse. There have been attempts to categorise these various movements according to attributes of the visitors, periods of stay and purpose (Bender and Borsdorf, 2014). For more detailed classification, it is necessary to accumulate individual cases.

What we will cover in this study is temporary stays, that is, regular visits to a second house in a rural village. Regarding a second house, it is mainly considered as a form of tourism, and its actual use and significance on the rural area has been clarified mainly in Europe and America (Hall and Müller, 2004; McIntyre, Williams and McHugh, 2006). There, in particular, the negative impact on rural areas has been emphasised. However, temporary residence in a second house can be evaluated as a transitional stage leading to migration through multi-local living. Also, long-term residency by second house users may have the same influence as permanent residents have on rural areas. In any case, it is necessary to clarify how utilisation of second houses in rural areas is progressing and how the use of second houses affects rural areas.

The influence of migration on rural areas, that is, qualitative change of rural areas due to population inflow into rural areas, is known as rural gentrification. Rural gentrification originally refers to the migration of the middle classes from urban areas to rural areas with a desire for rural life, and with the significant changes to the social environment and natural environment, it is a concept that refers to quality improvement in particular being brought about. Their high purchasing power and high level of demand not only brings about the beautification of their residential area and surroundings, but also makes it possible to improve administrative services and to set up a high level of commercial service functions, leading to the maintenance of the rural environment. In addition, rural gentrification is not just about the social and natural environment aspects of rural areas, it can be regarded as a comprehensive concept showing comprehensive qualitative change in rural areas including qualitative change in administration, business and the rural landscape. It would be interesting to know whether not only permanent migration but also seasonal stays in the second house is also generating rural gentrification.

### *3. Methodological Considerations*

We consider the village of Fügenberg as a case. Fügenberg is located in Schwaz County in the most downstream part of Zillertal extending south from the Inn Valley running east to west. Access by highway is good from Innsbruck and Bavaria, Germany. The village area spreads over the west bank slope of Zillertal, and has the Hochfügen ski resort, which was established in 1961 near the highest part.

First, we comprehended the trend of the population in Tyrol as a whole and Fügenberg by statistics. To the next, we gave a questionnaire survey to five households converting farm buildings to second houses, and 18 households owning a villa in a development near the ski resort in Fügenberg, and conducted interviews as part of the survey. Through these investigations, we identified attributes of the second house user (place of residence, educational background, profession, income), reasons for choosing this village, usage trends of the second house, activities in the village etc.

### *4. Results*

In Tyrol, the number of second registrant residents who have a primary residence in a different area and live here secondarily, has been increasing annually in the 2000s and was 109,967 in 2012. Of these, 49.2% are foreigners, and the increase of second residential registrants is largely due to the increase in foreigners. More than 90% of these foreigners

are from the EU countries, with many of these being German. Also, for 40% of Tyrol's Gemeinde, the second resident registrant per population exceeds 10%, and some Gemeinde have over 80%.

These second registrant residents have work and school attendance purposes but it is mainly intended for recreation. The number of temporary residences in Tyrol, based for recreation by foreigners, particularly Germany, are increasing. At the time of 1993, there were 194 second houses in Fügenberg, among these 156 were conversions of agricultural buildings such as alm cottages (Knapp, 1995). As of 2012, there were 291 second resident registrants in Fügenberg, which is 20.9% of the total population.

The majority of second house users are German, especially residents of Bavaria such as Munich. The age group is in their 50s, the most common occupation is business owner, followed by freelancers, with many earning over 4,000 euros per month.

The main reasons for choosing Fügenberg were beautiful landscape, winter sports, walks and proximity to their main residence. Almost all of them use their second house not only during vacation but also every month, so they have an extremely high utilisation rate. They enjoy skiing, walking, mountain climbing, picking mushrooms, the quiet environment, the possibility of leisure activities, and are satisfied with the presence of the mountains.

They all have exchanges with local residents, and tend to bring everyday items such as food, but often buy repair supplies for their second houses locally. Also the people who use agricultural buildings such as alm cottages as second houses, refurbish the buildings themselves to maintain and improve the quality.

##### 5. Discussion and Conclusion

The use of second houses by German people in Fügenberg lasts for a whole year, the length of their stay is long. And it can be said that there is an exchange between visitors, and between visitors and local residents, and a community has been formed in Fügenberg. Multi-local living — with work and daily life in Bavaria and diverse entertainment and rest in Tyrol — can be seen.

Their existence brings economic effects to rural areas through shopping behaviour and through rent payment. Also through the renovation of buildings they borrow, it is thought that they also contribute to the maintenance and qualitative improvement of rural landscapes. In other words, it can be said that rural gentrification is in progress.

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## 18. Rural Restructuring Driven by E-Commerce: The Case of Xiaying Village in Central China

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### 1. Introduction

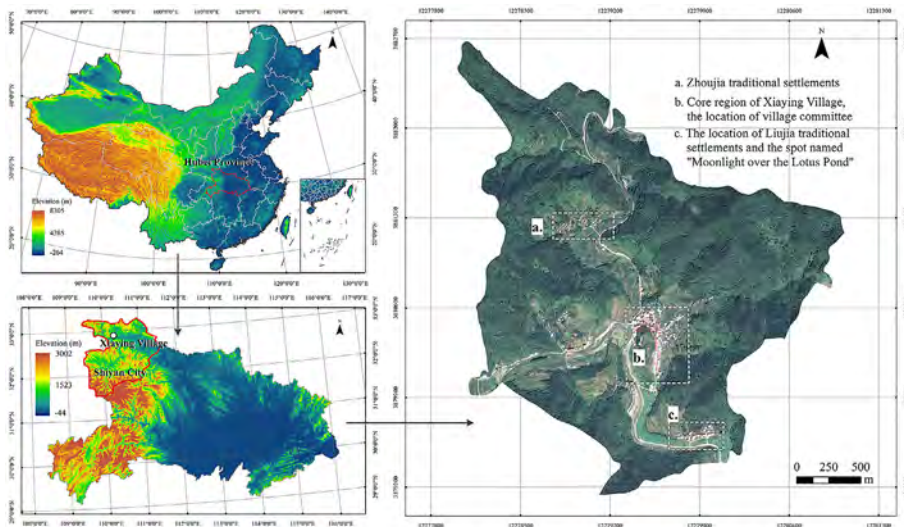
Growing urban-rural disparities and accelerating depopulation have become a widespread concern in combatting rural decline and urbanisation across the globe (Long and Liu, 2016). The continuous infiltration of e-commerce in both developed and developing countries, such as America, China, Southeast Asia and Africa, is of great significance for revitalising the world's countryside (Cui et al., 2017; Roberts et al., 2017). Taobao Village is initiated by Alibaba Group, and it refers to an aggregation of workshops that using a digital commercial platform called Taobao to conduct internet-based retail. The number of Taobao Villages in China rose from 3 in 2009 to 2118 in 2017, with particular growth in southeast coastal China and slightly diffusion in northwest inland regions (Shan and Luo, 2017).

Rural restructuring, a complex and comprehensive human process, does not mean the changes in a specific sector that produce multiple linked effects on other sectors with consequences that are qualitative and quantitative (Woods, 2009; Long and Woods, 2011; Long et al., 2011, 2016). Specifically, this process incorporates three aspects of economy, society and ecology. It is induced by the optimal allocation of development elements in a

rural territorial system, under the integrative impact of internal factors and external regulation, which ultimately achieve structural optimisation, functional enhancement and virtuous interaction between urban and rural (Hoggart and Paniagua, 2001; Long et al., 2012; Long et al., 2016; Tu and Long, 2017). Rural restructuring in China is tightly associated with the industrialisation and urbanisation process, and presents different characteristics and degrees in various phases.

In essence, the flows of information, products and capital and other flows relying on network and transportation facilities directly determine rural territorial system restructuring (Salemink et al., 2017). As an external form of geographical cyberspace constructed by various elements of flows, “space of flows” can effectively reveal the interaction between the information network and geospatial space (Ge et al., 2017; Yang et al., 2016), and provides an excellent perspective for explaining e-commerce oriented rural restructuring (Castells, 1999). This paper, taking “space of flows” as the research perspective and focusing on the integration of rural space and e-commerce, systematically depicts and analyses the characteristics of economic, social and spatial reconstruction through semi-structured in-depth interviews, participatory rural assessment (PRA) and GIS techniques.

*Figure 1. Profile of Xiaying Village (China). Source: Authors’ design and production; base map downloaded from Google Earth.*



The study area, Xiaying Village, is located in Yunxi County, Hubei Province, renowned for abundant kallaite resources. The whole village occupies an area of 4.5 km<sup>2</sup> and has 339 families who live locally. Its total population is 1,413, whose per capita farmland area is merely about 500 m<sup>2</sup>. Inspired by returning college students, e-commerce is gradually accepted and adopted by villagers, and is rapidly spread through the “acquaintance society” uniquely linked by kinship and relationships of proximity in native society. Since 2016, villagers have been exploring a sustainable development path that combines e-commerce, characteristic agricultural products marketing and rural tourism. Xiaying

Village commissioned the China Rural Construction Academy team to conduct strategic consulting and spatial planning to transform and upgrade rural e-commerce. Generally, the village can be divided into three parts (Figure 1). Zhoujia traditional settlement is situated in the north, represented by contiguous old houses. The middle part is the most densely populated region, where the village committee sits and dramatic changes have taken place. The third part consists of the small-scale Liujia Old Settlement and the spot named “The Lotus Pool by Moonlight” as the main body.

## 2. Understanding Rural Restructuring from Space of Flows

Taobao Village is essentially a space product affected by the “space-time compression” effect, where retailers choose and adjust the location, and constantly gather according to their demands for information networks, the formation and development of which requires support originating from the movement and transmission of various flows of elements. In fact, the motion and regional combination of elements flow itself manifests as the process of “space of flows”. Moreover, the immediate causes of rural restructuring are the changes and recomposition of elements in rural areas (Wu et al., 2015). Therefore, this restructuring process can be considered as a response of the rural socio-economic system and territorial spatial pattern affected by the flows of material and non-material elements produced by rural e-commerce.

The structure of the “space of flows” in Taobao Village is explained by the following four features:

- Flow elements: High-speed and frequent information flows, to which the recessive elements usually attached, pave the way for population migration and goods exchange between urban and rural.
- Flow carriers: As the growth platform and operation paths of “space of flows”, the internet, the transportation network and the telecommunication network determine system development status.
- Flow nodes: By virtue of the aggregation of online retailers, numerous element flows carrying tremendous energy in different contexts take Taobao Village as the starting, intermediary or end, making it a significant node in the “space of flows”.
- Flow supporting system: Space of flows is deemed as a dynamic, open and complicated system that is limited by multiple factors of economy, society and technology. State and local policies, as well as market forces, such as supply, demand, price and consumer preference, jointly determine the direction, intensity and speed of the space of flows.

## 3. Methods and Data Collection

To explore the changes in socio-economy and to understand the underlying attitudes and perceptions of villagers influenced by the booming rural e-commerce, relevant news coverage and statistical material were collected, and semi-structured in-depth interviews were used. For analysing the spatial restructuring from the dimensions of production, living and ecology, the vector data obtained by using artificial visual interpretation and field verification combined-method, based on high resolution (0.15 m) colour aerial photography taken in October 2016 and downloaded from Google Earth, was used.

#### 4. Results

##### 4.1. Economic Restructuring

###### 4.1.1. Combination of Rural E-Commerce and Kallaite Selling

The long tail effect initiated by the internet enables the extensive flows of online transaction information and offline product transport to be formed in Xiaying Village. The number of online shops has experienced a rampant increase since more and more villagers became involved in 2013. By the end of 2016, it had reached 139 with the annual revenue breaking through 70 million yuan, and the fast-growing tendency has proven irresistible. The vigorous information flows involving product quality, price and after-sale service, as well as the tremendous capital flows attached, continue to be strongly shaped by instant communication between network salesman and customers. The information flow and product flow jointly constitute the predominance of the commodity trading pattern, and contribute greatly to the establishment of long-distance spatial networking.

###### 4.1.2. Industry Transformation and Upgrading

Considering the non-renewable nature of mineral resources, the villagers gradually launched into transformation and upgrading of the industry with growing crisis awareness in recent years. Some of them take full advantage of the network platform to peddle local characteristic agricultural products and exquisite rural scenery, so attracting urban population flows and their attached capital flows and reducing the cost of product promotion. Besides, this pattern not only overwhelmingly expands marketing channels, but also organically combines resources, capital and market. In 2016, two professional cooperatives were established; one targets integrating lotus planting and a sightseeing tour, and the other is characterised by developing experience agriculture and organic farming through creating a high-quality tea brand. Oolong tea planting experts were invited by informed local people to guide the cultivating, processing and packaging, and to improve the quality of local tea. Currently, one tea processing base with first-class equipment, introduced from Taiwan, has been completed. In a manner of speaking, the kallaite industry accumulates enough capital for the burgeoning of distinctive agricultural undertakings. In response, industries solving the intractable rural issues of agriculture, countryside and peasants, as a supplement to the kallaite industry, complete the rural economic structure, and continuously sustain the sound development of remote rural areas.

##### 4.2. Social Restructuring

###### 4.2.1. Employment De-Agriculturalisation

The space of flows is not the only one in our society, but it still demonstrates a dominant spatial logic and needs to be mobilised, conceived, determined and implemented by social actors. The increase of product flows and transaction information flows promoted by industrial transformation and upgrading requires more administrators and executors to ensure the effective operation of elements flows. Upon their own subjective initiative, rural elites exert a dynamic role in activating market demand and the entrepreneurial motivation of rural areas, and this enthusiasm for entrepreneurship gradually spreads, affected by the ripple effect of rural social networks. Meanwhile, a great many migrant workers have returned to start-up businesses or obtain employment in response to the economic rationality manifesting as far higher earnings. In virtue of an online sale platform, villagers



make the most of local competitive and featured resources to participate in e-commerce oriented commercial activities in the forms of self-sale or commission sale. In this way, a new path of non-agricultural employment was created locally, which mainly finds expression in associating rural households with network merchants. Villagers perform multiple and heterogeneous roles, such as material processing workers, customer service staff, logistic dispatchers, network technician and salesman, in a collaborative space composed of knowledge and information that connects purchasers and sellers.

#### 4.2.2. Altered Rural Governance

The actors who manipulate the networks have become more diverse as a result of the return of former migrants. Interconnected issues comprising gaining widespread trust, favourable conflict coordination mechanisms and satisfying villagers' public service demand should be always emphasised in rural governance (Wang and Yao, 2007). E-commerce has intervened in the traditional social interest pattern, and produced far-reaching implications for the structure of rural governance. To satisfy the diversified demands and countering economic relations, a transition in rural governance was advanced by means of leading by elites, accepting multi-participants and improving public undertakings.

#### 4.2.3. Changes in Social Communication and Lifestyles

The space of flows enlarges geospatial scales, and the behaviour mainstream will respond to the space demands through a series of spatial decision-making changes. The instantaneity of information flows tends to compress the space-time cost of long-distance contact, so that the villagers' communication space tends to be distant and virtualised. The intertwined social networks in this village were shaped by the original kinship and occupational relationships, as well as the burgeoning online social activities. The closely connected links incorporating production, selling and logistics creates more opportunities for villagers to exchange with others. The majority of respondents said they exchange with their neighbours more frequently after running online stores, and the main constituents of exchange are the experiences and interesting things taking place in online store management. It indicates that e-commerce enables villagers to have more common discourse and become closely connected. All online store operators use social software for a long time every day to communicate instantly with customers, families and friends.

### 4.3. Spatial Restructuring

#### 4.3.1. Living Space Restructuring

Significant changes have taken place in the central area where the village committee is situated, which covers the largest area and is the most densely populated among the three settlements. The other two merely present small variations. Generally, increasing demands engendered by e-commerce have made the living space tend to be multifunctional, intensified and three-dimensional. Moreover, the public service space has experienced an extensive expansion.

#### 4.3.2. Production Space Restructuring

With regard to the production space, its function is mainly manifested in a substantial transformation from agriculture dominated to non-agriculture dominated. The appearance of supermarkets, restaurants and other service sites, as well as the introduced logistics company have jointly resulted in loss of farmland and the renovating of original

homesteads since 2009. Thereby, farmland was diverted to service provision. On account of the bankruptcy of a previous state-run mine, the newly-added production space chiefly comes from the newly-built tea processing plant. It should be noted that the relatively small space for production workshops and storage is mostly generated by in-filling and nearby expansion.

#### 4.3.3. Ecological Space Restructuring

Since 2008, ecological land (forest land, water area except for the newly-developed lotus pond, and idle land included in other land) has increased by almost 13 ha, which originated from the large-scale transformation from farmland to forest land promoted by the continuous implementation of Grain for Green Policy. Furthermore, more and more villagers choose to abandon or leave fallow their only remaining farmland in view of steep slopes that are difficult to cultivate and their dramatically increasing income. Thus, some of these lands have evolved into forest. Nonetheless, this transformation is scattered and occurs at the margin of the forest on a small scale. As the industry transforms, the composite space that functions synchronously as production and ecological conservation has gradually extended. For instance, the lotus pond that occupied 7.6 ha farmland was dredged in 2015. Therefore, the successful practice of fully exploiting the multiple functions through characteristic and leisure agriculture has been demonstrated to be a superior choice.

### 5. Discussion and Conclusion

Overall, the rapid and interactive flows of material or non-material elements between urban and rural, change or reorganise system elements, and then restructure the socio-economic morphology.

- As for the mode of industry, a traditional agriculture dominated pattern has transformed to the combination of primary, secondary and tertiary industry. The industrial chain that integrates production, processing and sale is gradually formed, so that the industrial structure tends to be comprehensive and presents an ecological transition.
- A growing number of young people who have become the mainstay of rural development get employed in non-agricultural industry, which indicates that rural e-commerce is an effective path for realising in situ urbanisation. Rural e-commerce complicates the interest relationship among villagers and awakens their subject consciousness, thereby causing the increasing diversification of the main governance body. In response, the trend of improved public services, lifestyle modernisation and social communication visualisation becomes prominent.
- Great changes have taken place in the living space, which is becoming multifunctional and intensive, because the massive flow of elements requires the support of physical space. Non-agricultural production space gradually expanded, while the agricultural production space drastically reduced. Ecological space has shrunk slightly while production space and ecological space tend to be combined because of the development of ecological tourism and agriculture.

The intertwined element flows create different opportunities for different actors. The initiative of the organic integration of kallaite, featured agriculture products and

e-commerce platform, together with the actor-network with a specific target, explicit function and feasible technique, constitute the core components of e-commerce oriented rural restructuring. More importantly, what powers the process of rural restructuring driven by e-commerce is the rural elite, while the organic combination of the network platform and featured resources provides a feasible path for rural reconstruction. Furthermore, the supply-side services implemented by the government, such as improving transportation and internet infrastructure, provide the necessary support for industrial development.

The intervention of the Internet in rural areas has prompted the reconstruction of urban-rural relations and territorial functional patterns, thus realising the modernisation of the mode of production and lifestyle. The lessons that can be learned from the practice lie in exploring a feasible path for rural revival through the overall revitalisation of population, land and industry. At the same time, however, it will also lead to an aggravation of elements loss in underserved areas, resulting in unbalanced regional development. In addition, rural e-commerce development still faces numerous obstacles in industrial development, social governance and land use, and urgent countermeasures for this problem need to be explored.

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### III. BRIDGING THE GAP BETWEEN CONFLICTING LAND-USES

### III. COMBLER L'ÉCART ENTRE LES UTILISATIONS CONFLICTUELLES DES TERRES

### III. TENDER PUENTES ENTRE LOS USOS DEL SUELO EN CONFLICTO

### III. COLMATAR LACUNAS ENTRE OS USOS DO SOLO EM CONFLITO

*Cullera (Ribera Baixa, Valencian Country, Spain, Europe).  
Source: Picture by Valerià Pau (12/8/2005).*





### *III. Bridging the Gap between Conflicting Land-Uses*

Land-use and land-cover change (LULCC) in rural areas is a pivotal indicator of the change being experienced by rural systems. LULCC is both a cause and consequence of many biophysical and socioeconomic transformations: new technologies, changing human activities and values, population growth, planning decisions, climate change, natural hazards, etc. Specific LULCCs observed across the globe include, inter alia: forestation and deforestation, the conversion of farmlands into residential allotments, the abandonment of productive areas for conservation, the explosion of crops such as soybeans being used for biodiesel, and the implementation of wind and solar farms. The potential mismatch between these new and emerging land-uses and land-covers often leads towards social and political conflicts at several geographical scales. This thematic session proposes a focussed discussion on rural LULCC under sustainability lenses, especially when bridging the gap seems particularly needed.

A particular situation in conflicting land-uses and land-covers is related to environmental protection devices affecting previous, ongoing and/or new human activities. Dowie (2009) and Zimmerer (2000) have outlined the overall escalation of contentious political and social conflicts because of the implementation of protection structures such as national parks, biosphere reserves and similar conservation mechanisms. Interestingly, protection devices such as natural parks and reserves can often become a major attractor for tourists, prompting urban development interest despite the limits set for the protection of the natural values. This process has been termed “naturbanisation” by Prados (2009). Analyses of protection devices with regard to LULCC are particularly welcome in this session.

This thematic session welcomes contributions around these questions:

- What rural LULCC monitoring methods have been utilised and what are the observed trends and patterns? How have they been measured? What are the driving forces prompting these changes?
- What are the socio-cultural, economic and environmental implications of rural LULCC?
- What conflicts arise when rural LULCC occurs?
- What are the political and policy responses for rural LULCC?
- What are the LULCCs experienced particularly in protected areas? How do these changes interact with environmental planning and management?

### *III. Comblent l'écart entre les utilisations conflictuelles des terres*

Le changement d'utilisation et de couverture des sols (CUCS) dans les zones rurales constitue un indicateur significatif de l'évolution que connaissent les systèmes ruraux. Le CUCS est à la fois une cause et une conséquence de nombreuses transformations biophysiques et socio-économiques : nouvelles technologies, évolution des activités et des valeurs humaines, croissance démographique, décisions relevant de l'aménagement, changements climatiques, risques naturels, etc. Les CUCS spécifiques observés à travers le monde comprennent, entre autres les domaines suivant : la foresterie et le déboisement, la conversion des terres agricoles en zones résidentielles, l'abandon de zones productives pour la conservation, l'explosion de cultures telles que le soja utilisé pour les biocarburants,

ou encore la mise en place de parcs éoliens et solaires. L'inadéquation potentielle entre ces utilisations et couvertures nouveaux et émergents des sols conduit souvent à des conflits sociaux et politiques à plusieurs échelles géographiques. Cette session thématique propose une discussion ciblée autour des CUCS ruraux sous l'angle de la durabilité, tant nous apparaît nécessaire l'émergence de pistes de réflexions autour de la réduction des contradictions relevées entre les utilisations et les couvertures des sols.

Une situation particulière en matière de conflits liés à l'utilisation et à la couverture des sols est liée aux dispositifs de protection de l'environnement qui ont une incidence sur les activités humaines passées, en cours ou nouvelles. Dowie (2009) et Zimmerer (2000) ont décrit l'escalade générale des conflits politiques et sociaux litigieux liés à la mise en place de structures de protection telles que les parcs nationaux, les réserves de biosphère et autres mécanismes de conservation similaires. Fait intéressant, les dispositifs de protection tels que les parcs naturels et les réserves peuvent souvent devenir un attrait majeur pour l'activité touristique ; il en découle un intérêt pour le domaine du développement urbain et ce malgré les restrictions fixées pour la protection des valeurs environnementales. Ce processus a été appelé « naturbanisation » par Prados (2009). Les analyses des dispositifs de protection s'agissant des CUCS sont particulièrement bienvenues dans cette session.

Cette session thématique est ouverte aux contributions portant sur ces questions suivantes :

- Quelles sont les méthodes de surveillance des CUCS en milieu rural utilisées et quelles sont les tendances et modèles observés ? Comment ont-elles/ils été mesuré(e)s ? Quels sont les moteurs de ces changements ?
- Quelles sont les implications socioculturelles, économiques et environnementales du CUCS en milieu rural ?
- Quels sont les conflits qui surviennent lorsque le CUCS rural se produit ?
- Quelles sont les mesures et réponses politiques au CUCS rural ?
- Quels sont les CUCS plus particulièrement relevés dans les aires protégées ? Comment ces changements interagissent-ils avec l'aménagement et la gestion environnementales ?

### *III. Tender puentes entre los usos del suelo en conflicto*

El cambio de uso y cobertura del suelo (CUCS) en los espacios rurales es un indicador significativo del cambio experimentado por los sistemas rurales. El CUCS es al mismo tiempo una causa y una consecuencia de transformaciones biofísicas y socioeconómicas varias: nuevas tecnologías, cambios en las actividades y valores humanos, crecimiento demográfico, decisiones de ordenación territorial, cambio climático, riesgos naturales, etc. Los CUCSs específicos observados alrededor del mundo incluyen, entre otros: la forestación y la deforestación, la transformación de tierras agrícolas en edificaciones residenciales, el abandono de áreas productivas para la conservación, la explosión de cultivos como el de la soja utilizada para biodiésel y la implantación de parques eólicos y solares. El potencial desajuste entre estos usos y coberturas del suelo nuevos y emergentes a menudo conduce a conflictos políticos y sociales a varias escalas geográficas. Esta sesión temática propone centrar el debate en los CUCSs rurales bajo la óptica de la sustentabilidad,



especialmente cuando tender puentes entre usos y coberturas del suelo contradictorios parezca particularmente necesario.

Una situación particular referida a usos y coberturas del suelo está relacionada con los dispositivos de protección ambiental que afectan a actividades humanas anteriores, actuales y/o nuevas. Dowie (2009) y Zimmerer (2000) han subrayado la escalada global de conflictos políticos y sociales polémicos debido a la implementación de estructuras de protección tales como parques nacionales, reservas de la biosfera y otros mecanismos de conservación. Curiosamente, los dispositivos de protección como los parques naturales y las reservas se pueden convertir a menudo en un atractivo relevante para turistas, lo que provoca el interés por el desarrollo urbano a pesar de los límites establecidos para la protección de los valores naturales. Este proceso ha sido denominado «naturbanización» por Prados (2009). En esta sesión se acogen con especial interés los análisis de los dispositivos de protección en relación al CUCS.

Esta sesión temática acoge con especial interés contribuciones sobre las siguientes cuestiones:

- ¿Qué métodos de monitoreo del CUCS rural han sido utilizados y cuáles son las tendencias y patrones observados? ¿Cómo se han medido? ¿Cuáles son las fuerzas que impulsan estos cambios?
- ¿Cuáles son las consecuencias socioculturales, económicas y ambientales del CUCS rural?
- ¿Qué conflictos aparecen cuando se produce el CUCS rural?
- ¿Cuáles son las medidas y respuestas políticas al CUCS rural?
- ¿Cuáles son los CUCSs producidos en zonas protegidas? ¿Cómo interactúan estos cambios con la planificación y gestión ambientales?

### *III. Colmatar lacunas entre os usos do solo em conflito*

As mudanças do uso e cobertura do solo (MUCS) nos espaços rurais são um indicador significativo da alteração vivida pelos sistemas rurais. As MUCS são ao mesmo tempo uma causa e uma consequência de transformações biofísicas e socioeconômicas várias: novas tecnologias, alterações nas atividades e valores humanos, crescimento demográfico, decisões de ordenamento territorial, mudança do clima, riscos naturais, etc. As MUCS específicas observadas à volta do Mundo incluem, entre outras: a florestação e a desflorestação, a transformação de terras agrícolas em edifícios residenciais, o abandono de áreas produtivas para a conservação, a exploração de cultivos como o da soja utilizada para biodiesel e a implantação de parques eólicos e solares. O potencial desajuste entre estes usos e coberturas novas e emergentes de solo conduzem muitas vezes a conflitos políticos e sociais a várias escalas geográficas. Esta sessão temática propõe centrar o debate nas MUCS rurais sob a ótica da sustentabilidade, especialmente quando colmatar lacunas parece particularmente necessário.

Uma situação particular sobre os usos e coberturas de solo está relacionada com os dispositivos de proteção ambiental que afetam atividades humanas anteriores, atuais e/ou novas. Dowie (2009) e Zimmerer (2000) sublinharam a escalada global de conflitos políticos e sociais polémicos devido à implementação de estruturas de proteção tais como parques nacionais, reservas da biosfera e outros mecanismos de conservação. Curiosamente,

os dispositivos de proteção como os parques naturais e as reservas podem-se converter frequentemente num atrativo relevante para turistas, o que provoca o interesse pelo desenvolvimento urbano apesar dos limites estabelecidos para a proteção dos valores naturais. Este processo foi denominado «naturbanização» por Prados (2009). Nesta sessão acolhem-se com especial interesse as análises dos dispositivos de proteção relacionados com as MUCS.

Esta sessão temática acolhe com especial interesse as contribuições sobre as seguintes questões:

- Que métodos de monitorização das MUCS rurais foram utilizados e quais são as tendências e padrões observados? Como se mediram? Quais são as forças que impulsionaram estas alterações?
- Quais são as consequências socioculturais, económicas e ambientais das MUCS rurais?
- Que conflitos aparecem quando se produzem MUCS rurais?
- Quais são as medidas e respostas políticas às MUCS rurais?
- Quais são as MUCS produzidas em zonas protegidas? Como interagem estas alterações com a planificação e gestão ambientais?

*References | Références bibliographiques | Referencias | Referências*

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## 19. Reimagining (Un)Protected Areas. An Analysis of Eucalyptus Consolidation in Fragas do Eume Natural Park (Galicia, NW Iberian Peninsula)

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### 1. Introduction

The means by which we see, understand and experience nature have increasingly changed over the last decades (West, Igoe and Brockington, 2006). Besides, the consolidation of protected areas has recently shaped not only our environmental goals, but also the way we achieve them. The International Union for Conservation of Nature (IUCN) presently defines a protected area as “a clearly defined geographical space that is recognised as and dedicated to achieving the long-term conservation of nature, with its associated ecosystem services and cultural values, and is managed, through legal or other effective means, to do so” (Dudley, 2008: 2). Whereas its conservative goal seems to be beyond doubt, ambiguity arises when we delve into terms of practical management. The ways we define fundamental aspects such as ecosystemic values — even cultural ones — are certainly subjective (DeFries et al., 2007).

Land-use planning was expected to encompass and deal with these conflicting aspects of protected areas. Despite the general assumption that planning is neutral and objective, critical geographers underline the fact that it is contested, imposed and negotiated (Paül, Santos and Pazos, 2015), thus casting serious doubts on the conservation effectiveness of the management of protected areas. Furthermore, beyond specific controversies, the coherence of protected areas is being increasingly questioned regarding conservation policies (Ojeda, 2012). Within the new forms of capitalism, scholars have shown diverse ways of exploitation of protected areas, reproduced in their studies as models of land grabbing (McCarthy and Prudham, 2004), touristification (Reinius and Fredman, 2007), industrial exploitation (Curran et al., 2004), or even fraudulent national security branding (Ojeda, 2012). We want to clear a path within a contrasted controversy in terms of biodiversity conservation: invasive species management in protected areas, which is related in many ways to some of the realities described above.

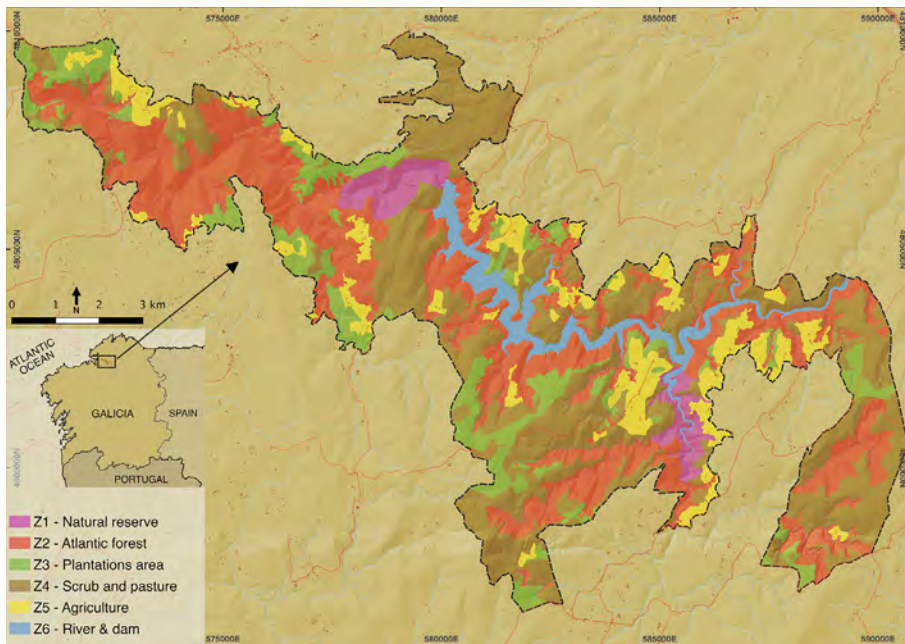
This paper aims to question the institutional discourse existing with respect to Fragas do Eume Natural Park (Galicia, NW Spain) conservation project. We will review and contrast the factual policies developed in our study area, regarding Eucalyptus (*Eucalyptus* spp.) management after 20 years of legal protection. Whilst the park was initially — and supposedly now — designated to protect its unique Atlantic forest, we evaluate this goal by analysing Eucalyptus expansion inside the park borders. Thus, we hypothesise that ecological conservation is not the main purpose of the Natural Park management. When questioning its conservation goal, we aim to achieve a more accurate meaning for this protected area: what is the real purpose of its designation?

Under Spanish legislation (Spanish Act 4/1989), Fragas do Eume was designated a Natural Park by the Regional Government — Xunta de Galicia — in 1997, covering

9121.65 ha (Galician Decree 218/1997). In the preface it is stated that “Fragas do Eume constitutes the best representation of native forest in Galicia”, and that “despite the degradations caused by human activities”, its “naturalism” and “biodiversity” deserve active preservation. Its riverside is today considered one of the best-preserved riverside Atlantic forests in Europe (Teixido, Quintanilla and Carreño, 2009). Furthermore, in terms of tourism, the park is being promoted as “The Last Atlantic Forest” by the Galician Government (Turismo de Galicia, 2017).

In terms of management, the Xunta enacted in 1996 a reduced Natural Resources Protection Plan — *Plan de Ordenación dos Recursos Naturais* (PORN) in Galician — (Galician Decree 211/1996). We highlight two remarkable elements in this document: the geographical delimitation of the protected area (Figure 1); and a hierarchical organisation of its land uses, based on the allocated ecological values of the park at that time (Table 1). Fragas do Eume has been maintained without any extended scheme for at least 20 years. In fact, the provisions provided by the Management and Public Use Plan — *Plan Reitor de Uso e Xestión* (PRUX) in Galician —, were initially published in 2015, but due to numerous public rejections as a consequence of a lack of public participation (ADEGA, 2015), they have not yet been implemented. We therefore consider it essential to outline that, in its initial version, the PRUX has not scheduled any additional restrictions to plantations. Moreover, the document suggests or justifies more than once that Eucalyptus plantations are a significant element of the local economy.

*Figure 1. Location and land-use zoning of Fragas do Eume Natural Park (Comarca do Eume, Galicia). Source: Map by the author (2/1/2018).*



## 2. *Towards a Better Understanding of Conservation through Land-Use*

It is assumed that humans have modified more than 80% of the Earth's land surface due to land-use (Sanderson et al., 2002). This process has implied a progressive denaturalisation of land, which is considered a major threat to biological diversity (Fischer and Lindenmayer, 2007). With regard to this, protected areas emerged in the 19<sup>th</sup> century due to a combination of national symbolism (Runte, 1997) with an extended claim to stop habitat destruction and minimise species endangerment (West, Igoe and Brockington, 2006). Zimmerer (2000) suggests that this boom of conservation areas represents one of the biggest land-use challenges we have ever had in planning. While the effectiveness of protected areas towards biological conservation is still in question (Joppa, Loarie and Pimm, 2009; Paül, Santos and Pazos, 2015), scholars increasingly defend land-use analysis as a tool to evaluate conservation policies (Hamilton et al., 2013). We identify a common claim in their studies: the need to take into consideration not only spaces under conservation, but also the surrounding areas in their different scales (Zimmerer, 2000; DeFries et al., 2007; Hamilton et al., 2013).

In terms of biological conservation, surrounding landscapes matter (Griffith et al., 2009). Ecologists have pointed out the importance of reinforcing external ecological flows (Hansen and DeFries, 2007) in order to effectively protect conservation areas. Therefore, peripheral land-use, which is typically dominated by more anthropic land-use than the core area (Wade and Theobald, 2010), is exposed to higher levels of degradation and habitat fragmentation (Teixido, Quintanilla and Carreño, 2009). Some scholars link this threat with the need for (re)defining park boundaries and developing cross-boundary management (Liu and Taylor, 2002). Consequently, since conservation debate is sustained by societal decision-making, it is essential to incorporate political debate concerning land-use (Adams et al., 2004) in order to be able to reimagine nowadays conservation discourse.

Neoliberalism and post-productivism have always been associated with conservation in so many ways (Mather, 2001; Ojeda, 2012). Specifically, regarding land-use policies, scholars point out the need for understanding protected areas in terms of political or institutional objectives. This has been a very recurrent issue for the academia in the last few decades (Hall, 2006; Paül, Santos and Pazos, 2015). Thus, critical researchers have shown that, protected areas have essentially become a kind of a tourism product (Buckley, 2004) reinforced with an institutional brand (Reinius and Fredman, 2007), such as “National Park” or “Biosphere Reserve”. In fact, the increase of recreational use of protected areas has been progressively proven by firstly perceiving (McCool, 1985) and then analysing data from onsite tourist counters (Fredman, Hornsten-Friberg and Emmelin, 2007). That is, ironically, certain fragile spaces only interest tourists once they have been designated “protected areas”.

## 3. *Methodological Considerations*

In order to effectively link our results and discussion with existing institutional planning policies, land-use analyses presented for this study area are entirely based on a National Spatial Database. Specifically, we took two 1:25,000-scale forestry digital maps from the Spanish Forestry Map — coded as «MFE25» in Spanish — dating from 1998 and 2011 (MAPAMA, 2017), which fit within the initial 13 years of management of the

park. Thus, this article intentionally breaks with some emerging methodologies based on photo-interpretation — such as in Teixido, Quintanilla and Carreño (2009) and Zeleke and Hurni (2001) — by confining ourselves to institutional data.

First, we combined both MFE25 land-cover with the designated zoning of the Natural Park in 1996. Second, we extracted two mask categories from data: «G60 — Eucalyptus» and «G9 — Leafy trees», which represent, respectively, Eucalyptus plantations and Atlantic native forests. Next, we measured in hectares and in percentage the extension of both categories in each of the designated zones, which thereafter let us estimate their evolution from 1998 to 2011. The statistics obtained give us empirical support in order to discuss the conservation policies stated in both PORN and PRUX management plans.

#### 4. Results

In absolute terms, Eucalyptus plantations and Atlantic forest have followed opposite dynamics between 1998 and 2011. Despite legal restrictions (Table 1), Eucalyptus extension increased in Fragas do Eume by 214.77 ha, whereas Atlantic forest decreased by 646.42 ha in this same period. This implies that, by 2011, 14.69% of total land-use in Fragas do Eume was exclusively designated for Eucalyptus plantations (Table 2). Furthermore, this inverted process has been more recurrent in lower lands of the Park (mid-West), and in the northern riverside of the higher lands of the Park (Figure 2). From now on, we will delve into the five hierarchised protection zones of the park and analyse our results compared to the legal restrictions stated in the PORN plan.

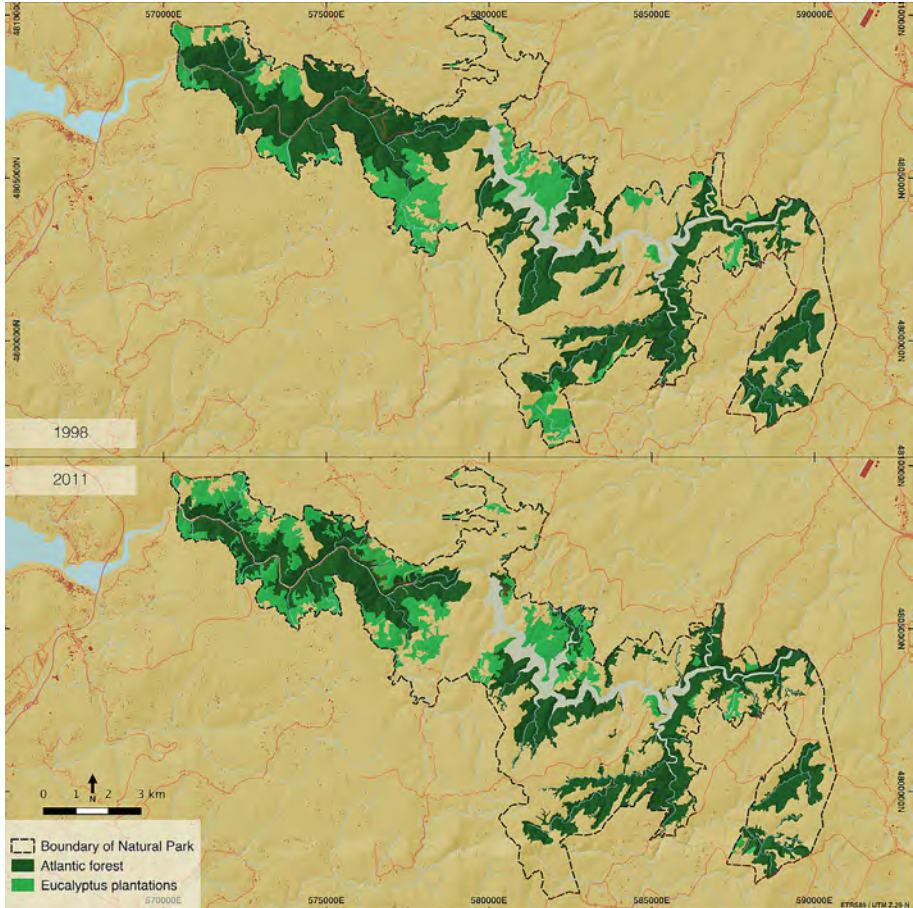
*Table 1. Zoning, description and restrictions over land-use in Fragas do Eume Natural Park. Source: <http://parquesnaturais.xunta.gal/> (accessed on 21/11/2017).*

Zone	Description	Restriction
Z1 – Natural reserve	Highest ecological values of the park	Human activities are extremely restricted
Z2 – Atlantic forest	Constituted by lands of native and old forests	Exotic plantations are not permitted
Z3 – Plantations area	Areas already used for plantations	Plantations are not permitted in +35% slopes
Z4 – Scrub and pasture	Strategic areas with unique values. Conservation is needed	Plantations need permission
Z5 – Agriculture and livestock	Land under «rural» use. «Sustainable» activities will be prioritised	No restrictions stated

As introduced above, Zone 1 was designated a Natural Reserve in 1997 in order to preserve its ecological values and flows from higher to lower lands of the park. By that time, there were no Eucalyptus planted in this area and the PORN stated that human activities — apparently, of any kind — were extremely restricted. Nevertheless, we have found that by 2011 there were three hectares of Eucalyptus planted in this conservation area and that Atlantic forest decreased its extension by 34.68 ha.

The Atlantic forest was initially classified as Zone 2, with a total extension of 3259.39 ha. Here, the results show a decrease of 209 hectares of Atlantic forest following the

Figure 2. Evolution of Eucalyptus and Atlantic forest land areas in Fragas do Eume Natural Park (1998-2011). Source: Maps by the author (4/1/2018).



designation of the Natural Park. Moreover, we find here the biggest increase of Eucalyptus in Fragas do Eume, both by total hectares (+78.37 ha) and by total % (+0.86%). The PORN had stated in 1997 that new exotic plantations were prohibited in this area in order to protect old local forests. Peripheral areas of the Atlantic forest are mainly constituted by steep slopes which had been designated Zone 3 in 1997 in order to offer spaces of tree plantations to private owners of land. This means that, unlike Zone 1 and Zone 2, Eucalyptus plantations were legally allowed in this area. Thus, from 1997 to 2011, Eucalyptus plantations increased by 77.47 ha, to the detriment of Atlantic forest, which reduced its extension by 165 ha.

Peripheral areas of the Natural Park in 1997 mostly consisted of scrub and pasture spaces — Zone 4 — and lands for agricultural use — Zone 5 —. Different from the dynamics described above, Zone 4 has not changed its land-use much and Eucalyptus

plantations increased just by 7.86% in this zone. As Zone 5 had no restrictions in terms of plantations, *Eucalyptus* increase (+34.92%) was more noticeable in these areas.

Table 2. Land areas of *Eucalyptus* and Atlantic forest in Fragas do Eume Natural Park (1998-2011). Source: <http://www.mapama.gob.es/> (accessed on 21/11/2017).

Zone	Land area	ha (1998)	ha (2011)	% ha Park (1998)*	% ha Park (2011)	$\Delta$ ha**	$\Delta$ % ha Park	**/* in %
Z1	<i>Eucalyptus</i>	0	3.24	0	0.04	3.24	0.04	–
	Atlantic forest	302.76	268.08	3.32	2.94	–34.68	–0.38	–11.46
Z2	<i>Eucalyptus</i>	373.84	452.21	4.10	4.96	78.37	0.86	20.96
	Atlantic forest	2466.67	2257.02	27.03	24.73	–209.66	–2.30	–8.50
Z3	<i>Eucalyptus</i>	338.96	416.43	3.71	4.56	77.47	0.85	22.86
	Atlantic forest	234.94	69.48	2.57	0.76	–165.46	–1.81	–70.43
Z4	<i>Eucalyptus</i>	327.18	352.88	3.59	3.87	25.71	0.28	7.86
	Atlantic forest	498,14	304.14	5.46	3.33	–194.00	–2.13	–38.94
Z5	<i>Eucalyptus</i>	85.87	115.85	0.94	1.27	29.98	0.33	34.92
	Atlantic forest	105.69	63.16	1.16	0.69	–42.52	–0.47	–40.24
Park	<i>Eucalyptus</i>	1125.84	1340.61	12.34	14.69	214.77	2.35	19.08
	Atlantic forest	3608.20	2961.88	39.54	32.46	–646.32	–7.08	–17.91

### 5. Discussion and Conclusion

Land-use change analysis can be an effective tool not only for evaluating ecological dynamics in protected areas (Hamilton et al., 2013), but also to reinterpret broader policies developed in their management. When comparing Fragas do Eume PORN and PRUX management plans with land-use changes developed following the park designation, we perceive a clear breach of regulations in terms of invasive species management. This is, as argued by Ojeda (2012), that in terms of biological diversity conservation policies are being clearly mitigated in Fragas do Eume in favour of diverse economic interests. Consequently, *Eucalyptus* spp. has been consolidated and slightly increased its presence in the park to the detriment of the Atlantic forest.

Moreover, scholars almost unanimously underline the need to take into consideration peripheral spaces of protected areas in order to protect ecological flows and core spaces (Zimmerer, 2000; DeFries et al., 2007; Hansen and DeFries, 2007; Hamilton et al., 2013). However, in our case study we first identified how peripheral zones — specifically Zone 3 and Zone 5 — were almost unprotected ecologically in both the PORN and PRUX plans. This implied that these conservation zones suffered the highest increase of *Eucalyptus* spp. In general, according to Wade and Theobald (2010), land-use dynamics of peripheral spaces increasingly seem to suffer in Fragas do Eume higher levels of anthropic pressures, specifically in terms of forestry interests.

Therefore, we argue that beyond institutional propaganda (see Turismo de Galicia, 2017), land-use dynamics in Fragas do Eume show that the designation of Natural Park



has not implied any remarkable change in terms of invasive species management. As suggested by Curran et al. (2004), industrial forces seem to overwhelm conservation policies in the park. In addition, we believe that as tourism uses of the park are mainly focussed on central spots of Zone 2, tourism purposes might be more recurrent than conservative ones for the Galician government. This is an issue that deserves deeper analysis in future studies, namely in our 7-year gap (2011-2018): the most relevant period in terms of visitor counts (Xunta de Galicia, 2017).

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## 20. Enhancing Biosecurity and Social Capital in Rural Management Mosaics

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### 1. Introduction

There is growing concern among policy makers about the effects of rural land use change on biosecurity — protection from invasive plants, pests and diseases (Waage and Mumford, 2008). Of key concern is the subdivision of agricultural land into management mosaics (Epanchin-Niell, 2015), i.e. landscapes comprising many individually-managed properties with a variety of uses. For example, a recent review of weed management in New South Wales (NSW), Australia, has identified that subdivision of agricultural land into lifestyle blocks increases biosecurity risks because new land managers may have little knowledge of their legal biosecurity obligations, have little financial incentives to invest in biosecurity and put a low priority on biosecurity in general (NSW NRC, 2014).

Policy-makers' concerns are consistent with a growing body of rural social science that investigates the motivations and practices of lifestyle and production land managers with respect to weed management. In Australia, Marshall et al. (2016) explored the different motivations, barriers and weed control practices of small- and large-property owners and found that small-property landholders were less likely to monitor their property for weeds and report incidences of weeds. Similarly, in Klepeis' et al. (2009) study on weed control practices of large-holding graziers and amenity migrants, they found that absentee landholders are less likely to undertake weed control and participate in community-scale responses. In the United States, Yung et al. (2015) found that absentee landowners were less likely to conduct weed control activities.

Across these studies, a consistent finding is emerging that amenity migrants are not controlling weeds because they are infrequently engaged in rural social relations with production land managers. For example, Klepeis and Gill (2016) found that amenity migrants and agricultural land managers operate in different social circles and rarely engage with one another with respect to weed management. Similarly, Klepeis et al. (2009) and Marshall et al. (2016) found that amenity migrants and small landholders are less likely to engage in Landcare (voluntary local land conservation) groups than graziers and large property managers, respectively. Thus, this paper aims to explore the relationship between rural social capital and biosecurity in management mosaics.

### 2. Social Capital and Weed Management

The three elements of social capital consistently discussed in the literature are: trust, norms and networks (Adler and Kwon, 2000; Pretty and Smith, 2004). The limited research into each of these concepts in the context of rural weed control is reviewed here.

Qualitative studies have revealed that trust among new and established landholders is required for biosecurity information to be shared and support to be provided (Graham, 2013, 2014; McKiernan, 2017) requiring the cooperation of diverse actors. This study

aims to assess the roles of trust and power in achieving environmental collective action among rural land managers. The empirical example used is serrated tussock (*Nassella trichotoma*). For example, Graham (2013) found that competence and goodwill trust was more likely to exist among long-term neighbouring landholders, and where such trust existed, landholders were more likely to communicate and help one another with weed control. This is consistent with Marshall et al. (2016), whose survey revealed that large-property landholders were more likely to be motivated to control weeds when they trusted their neighbours to also control weeds. However, weed control policies can have a negative effect on trust. Graham (2013) found that the existence and use of enforcement to compel landholders to control weeds undermined goodwill trust. This was one reason why new and established landholders avoided engaging about weed control.

Social norms can encourage new rural landholders to control weeds. For example, Minato et al. (2010) found that in the case of blackberry, a weed for which no enforcement program exists in south-eastern Australia, a rural community established an injunctive norm that each landholder was expected to undertake weed control. The norm was enacted through the allocation of established landholders as mentors to new landholders, who informed landholders of the shared value that the community placed on weed control and the expectation that everyone would contribute. McKiernan (2017) also found descriptive and injunctive norms in effect in another community experiencing urban-rural migration in south-eastern Australia. In this community, a Landcare Project Officer was responsible for enrolling new landholders in Landcare, helping them to develop a weed management plan and then sign a contract to commit to weed control. In doing so, the project officer communicated the community's shared values and goals pertaining to weed control and provided a mechanism to ensure compliance.

There has been limited research into the role of local social networks in rural weed management. Instead, interpersonal networks have been informally studied through research into the diffusion of weed control innovation. For example, Llewellyn et al.'s (2007) survey on integrated weed management included questions on the number of commercial agronomist visits per year, and number of field days or cropping-related meetings attended. Similarly, D'Emden et al.'s (2004) survey included questions about whether land managers obtain advice on weeds from the Department of Agriculture. Other recent research on biosecurity networks has focussed on institutional actors and how they interact at various scales to manage new and established invasive species (McAllister et al., 2015; Lubell, Jasny and Hastings, 2017). Combined, this research on biosecurity networks highlights the importance of considering bonding, bridging and linking (or vertical) social capital (Pretty and Smith, 2004).

There has been limited social research that has examined social capital in its entirety, encapsulating trust, norms and networks, in the context of rural weed management. The aim of this study was to develop and test a survey instrument that would facilitate the measurement of social capital as it relates to weed management. The research formed part of a pilot project run by the NSW Department of Primary Industries (DPI) and Local Land Services (LLS) to support communities to collectively manage widespread weeds. The aim of the pilot project was to expand the focus of government weed management programs from focusing on biophysical outcomes, such as reducing the extent and spread

of weeds, to social outcomes, such as the quality of rural social relations. The rationale was that strong social relations are essential to achieving weed control over the long-term, and so weed control programs need to explicitly aim to enhance social capital from the outset.

### 3. *Methods*

#### 3.1. *Measuring Social Capital for Weed Management*

Survey questions were designed to measure trust, social norms and networks between individual landholders and their neighbours, the wider community and local government, to assess the existence of bonding, bridging and linking social capital, respectively.

Trust is highly context dependent (Hudson, 2004). There is general consensus in the literature that trust involves three parts: a trustor, a trustee and an action, i.e. X trusts Y to do Z. In this study, the trustors, X, are private landholders with weed management responsibilities. Y were neighbours, other land managers in the community or local government. Z involved best weed management practices. Hence the questions on trust asked private landholders to indicate whether: “Most [Y] can be trusted to implement [Z]”. The wording of the question was comparable to other research on trust in NRM (e.g. Lubell’s, 2004).

Social norms relate to what people believe is an appropriate behaviour in a group (Mackie et al., 2015). The social capital literature indicates that social norms are closely related to shared values (Adler and Kwon, 2000), which is consistent with the research on weed management discussed above. In other research on NRM, the concept of salient value similarity (Cvetkovich and Winter, 2003) encapsulates an individual’s implicit and explicit understanding of a social situation and the available responses. Thus, in this survey we asked whether participants agree that “[Y] share my values about how to manage weeds”, which is adapted from Cvetkovich and Winter’s (2003) question on salient value similarity.

Finally, social networks were identified based on the extent to which respondents were willing to ask others for information: “If I need information on weed control I talk to [Y]”. The following set of questions, drawn from the broader social capital literature (e.g. Whitlam, 2007; Whalen et al., 2012) were included to evaluate the strength of rural social relations:

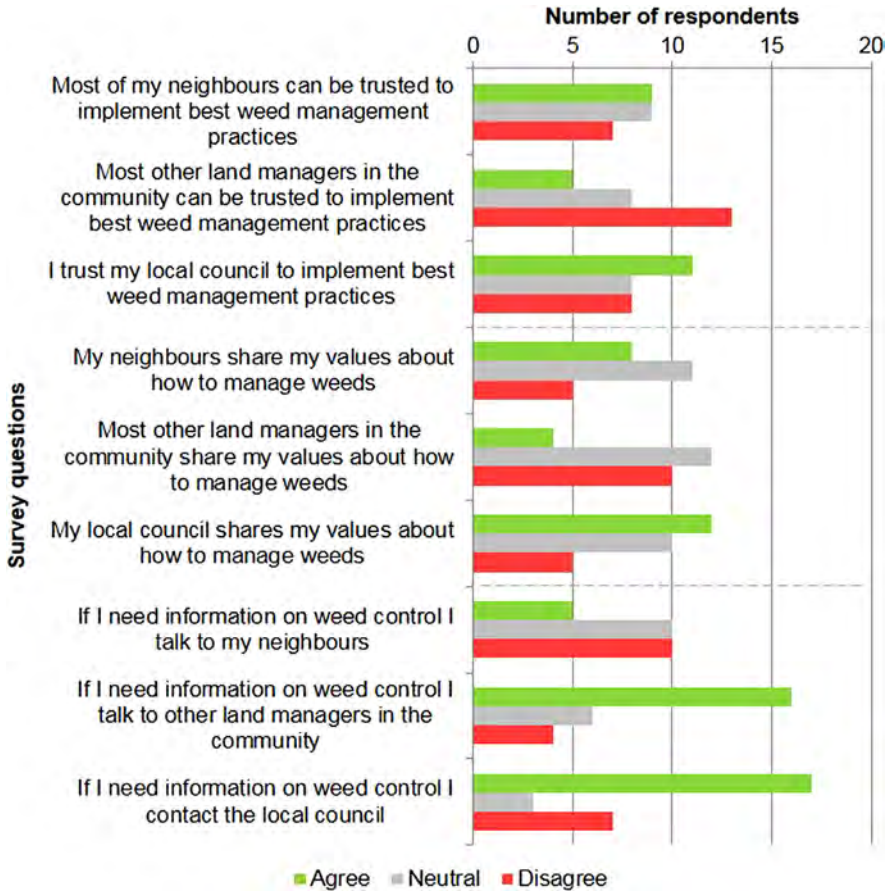
- I know my neighbours well
- I can depend on my neighbours
- My neighbours can depend on me
- Being a member of this community is like being part of a group of friends
- People can depend on each other in this community
- When something needs to be done here the whole community gets behind it

All the social capital questions were measured on a 5-point likert scale from strongly agree to strongly disagree.

#### 3.2. *Testing the Survey Instrument*

NSW DPI and LLS staff piloted their collaborative weed management approach in three communities, characterised by management mosaics. Participants were asked to complete the survey when they attended a workshop run by the NSW DPI and LLS.

Figure 1. Responses to survey questions on trust, social norms and information sharing networks. Responses from the five-point Likert scale were collapsed to form agree (including strongly agree and agree), neutral (neither agree nor disagree), and disagree (including disagree and strongly disagree) categories.



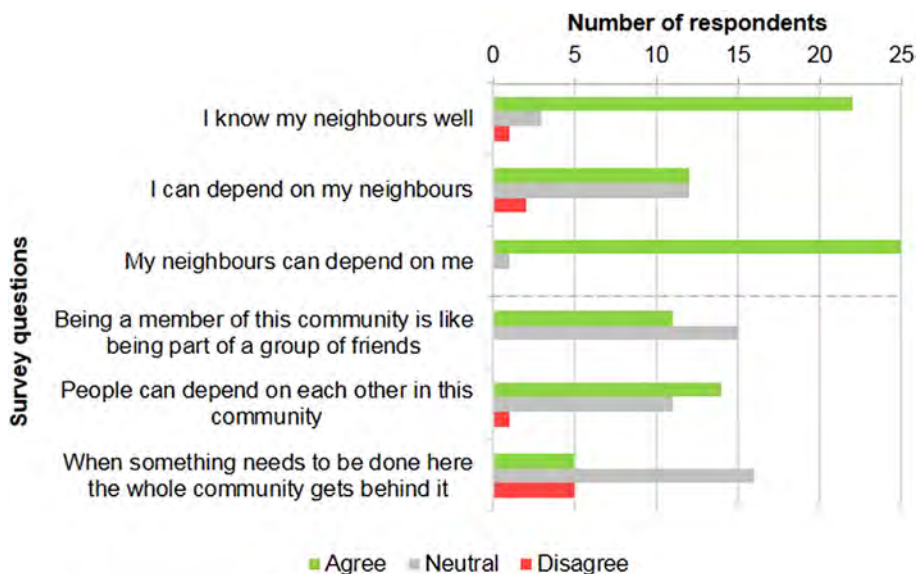
It was intended that participants would complete the survey a second time, to measure changes in social capital, but a follow-up survey was not undertaken due to changes to the pilot design. Twenty-seven surveys were collected and the results are presented below.

#### 4. Results

Survey respondents had diverse reasons for owning rural land. Five respondents obtain their primary source of income from their land, seven use their land to provide a significant secondary source of income, seven obtain a minor source of income from the land, and eight respondents generate no income from their land.

On average, respondents had owned property in the community for between 2 and 41 years, 17.1 years on average. Twenty-two respondents live on their properties full-time.

Figure 2. Responses to survey questions on the strength of social networks. Responses from the five-point Likert scale were collapsed to form agree, neutral, and disagree categories.



The other seven respondents either live on the property half of the year, or visit the property on multiple weekends, from once a month to most weekends.

Respondents were most likely to trust their local council to implement best weed management practices, and were least likely to trust other members of the community (Figure 1). This was consistent with the questions on shared values; respondents were most likely to feel that their local council shares their values on how to manage weeds. The questions on sharing information revealed that participants were about as likely to ask other members of the community or the local council for information on weed control, and were least likely to ask their neighbours.

With respect to the strength of social networks, participants were almost in complete agreement that they know their neighbours well and that their neighbours can depend on them (Figure 2). There were almost equal levels of agreement and ambivalence on the extent to which neighbours can be depended upon, that people in the community can depend on one another and that being a member of the community is like being part of a group of friends. The greatest ambivalence related to the question about whether the whole community gets involved when something needs to be done.

## 5. Discussion and Conclusion

### 5.1. Discussion

The results reveal moderate levels of trust among neighbouring landholders and between landholders and local government with respect to managing weeds. The levels of trust in local government is surprising given that in qualitative studies landholders have

identified poor local government weed control efforts as a disincentive to investing in private weed control efforts (Graham, 2013).

The finding that more landholders believe that the local government shares their values about how to manage weeds than their neighbours or other members of the community, indicates that respondents' values overlap more than they realise. It also suggests that there is scope for local governments to run programs that communicate the extent to which landholders share values and can be trusted to implement best practice weed control. Such a sense of community can be facilitated through regular social events as well as events that are more specifically targeted at developing common goals, collective learning and reducing stigma associated with having weeds (Graham and Rogers, 2017).

Participants indicated that they know their neighbours well but that they're unlikely to ask their neighbours for information on weed control. This confirms past research that talking to neighbours about weeds is taboo (Graham, 2014). However, the survey research here indicates that participants are willing to approach other members of their community and the local council for information about weed control. Thus, the impacts of litigious weed management policies on rural social relations (Graham, 2013), may be restricted to negative impacts on neighbourly relations. Yet this contradicts other social research, which has found that landholders believe that a strong legal framework, including enforcement, is needed to enhance landholders' trust that their neighbours will engage in weed control (Marshall et al., 2016). Thus further research is needed to explore the effects of biosecurity enforcement on rural social relations.

## 5.2. Conclusion

This exploratory research provides preliminary evidence that measuring all three dimensions of social capital can provide new perspectives on weed control in management mosaics. The results reveal that there is considerable scope to increase trust between private landholders, their neighbours and other land managers in the community. Given the similarities between the levels of trust and perceptions of shared values, higher levels of trust might be encouraged by demonstrating that land managers share the same values about weed control. The results also indicate that local governments are best placed to facilitate such realisations about shared values, and raise levels of trust.

Due to the small sample size it was not possible to test the reliability of the survey items developed here. Furthermore, the participants who completed the survey tended to be permanent, longer-term landholders. Thus, if future research investigates the effects of land use change on social capital and weed management, the survey instrument will need to reach more land managers across the landscape. Alternatively, future research could undertake a comprehensive social network analysis, which not only investigates whether land managers trust their neighbours, but also obtains information on who those neighbours are, i.e. recent or long-term landholders, and how neighbourly relations have evolved over time.

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## **21. An Unprecedented Potential Conflict Generated by Danube Floods in a Rural Area**

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### *1. Introduction*

This paper analyses how the consequences of a flood-type disaster can generate an unprecedented conflict over a very long timeframe. As a rule, during a natural catastrophe there is a synergy of efforts which mitigate damages, and the small conflicts that appear will disappear with the return to calmness. Through this study, we demonstrate, on the one hand, that there are situations in which the resilience of a socio-ecological system risks being reduced by a radical measure, and on the other hand, that, in the case of catastrophic phenomena, the intervention to remove and avoid future damages should not be oversized.

This paper evaluates the relocation of Rast, a village in south-west of Romania, to a location about 7 km north of the old settlement (Boengiu et al., 2008). The speed at which the village was rebuilt in a new location, is reminiscent of similar measures taken during the former communist regime, when villages were relocated for various utilities (building a reservoir, regulating a river or expanding urban neighbourhoods). The novelty of this situation is the fact that most of the population does not want to leave the old village, even if the authorities have built a village at a new location.

In the spring of 2006, the area between Rast and Gighera was heavily affected by the catastrophic floods of the Danube (Licurici, Boengiu and Ionuş, 2011), but especially the village of Rast. There has never been such a phenomenon in the flood history of this great river. This event set the historical level reached by the Danube waters, which exceeded the previous highest level reached in 1981 by about 60 cm (Pleniceanu, Ionuş and Licurici, 2008). The historical character of the event was underscored by the fact that the hydro-technical infrastructure existing since 1990 was continuously degraded as the drainage channels have become unusable and the height of the defence dikes has decreased because they were being used as roads (Licurici, 2011).

The measures taken in the case of the flooded village of Rast seem to have been disproportionate to the causes and expectations of the community of nearly 4,000 inhabitants. The lack of experience in the case of such disasters did not involve separate activities of combining emotional activities with the restoration of the built environment (Whittle, 2012), choosing the radical decision of village resettlement. This variant does not take into account the psychological effects of the disaster (Carroll et al., 2009; Sims et al.,

2009); the newly created inequalities (Begg, Walker and Kuhlicke, 2015) added a new situation: illegal living of the people in their own village.

Because of these measures, a potential conflict state is generated by the fact that residents live illegally in the village territory where they were born. The unprecedented conflict, brewing for 12 years, is about to burst and has led to measures that legalise an illegal situation. It is a low burning conflict, such as this, that can burst when a critical mass of the unhappy population does not receive legal approval to live in civilised conditions on a land to which they are emotionally attached (Ruiz and Hernández, 2014).

## *2. Literature Background*

Floods are one of the most studied phenomena due to their catastrophic effects on communities, but also to the collective and individual traumas they often generate (MacDonald et al., 2015; Wood and Wright, 2016). That is why responsible institutions at all levels have to act together to reduce the stress to village residents and to identify ways to strengthen the resilience of the entire community at the risk of floods (Walker-Springett, Butler and Adger, 2017).

The current literature reveals that for disasters or crises caused by natural phenomena, there are a variety of conflicts, which occur out relatively quickly or over the course of a few years. Among these conflicts, most are generated by changes in land use, ownership, due to natural, social, economic and political factors, etc. (Ianoş, Sîrodoev and Pascariu, 2012). It is certain that the land possesses many values, such as spatial, economic, social, cultural and sentimental. Through their multitude of trans-spatially concentrated values, the land becomes the place of cooperation and competition between numerous public and private actors, among which the most important are the inhabitants, especially when we refer to the locality itself.

Relationships between these actors may deteriorate when both written and unwritten rules and regulations are not being respected. This may cause turbulence (Hettne, 2002) that may affect relations not only between territorial agents, residents, but also between decision-makers and residents. This last aspect is extremely important for a complex and sustainable use of local resources. The reduction of the risk of producing conflicts generated by natural phenomena has been and is one of the priorities of the spatial planning process, which is reflected directly in the way land is used. Usually, conflict is seen as a driver for the development of a society (Dahrendorf, 1990), but when measures taken by local decision-makers have a hidden agenda that affects the community, in case of major events, the ground is laid for a conflict that cannot be easily managed.

In the analysis of the effects of the Danube floods on Rast, with over 80% affected households (Pleniceanu, Ionoş and Licurici, 2008), raises relevant spatial planning questions. Such situations have been created by decision-makers at higher levels who have not correctly judged the crisis situations by adopting asymmetrical, even abusive measures that emotionally and morally affect the respective communities (Lundgren and Nilsson, 2018). The rush of taking radical measures without consulting the village population indicates the intention to cover bad management decisions for such phenomena.

Otherwise, it does not explain why the decision has been adopted to move a whole village that could be protected, as it has been through the centuries, through timely interventions and an analysis of the whole context. Overall, how it was acted in this disaster shows that the environment is a politicised landscape, reflecting an episodic dimension, such as those related to floods (Nix-Stevenson, 2013). In order to increase the resilience of the locality to such natural phenomena, it is important to apply a participatory action plan to which the population, local authorities, other institutions and non-governmental organisations to adhere.

### *3. Case Study*

The village of Rast is located at the contact between the floodplain and the first terrace of the Danube, about 4 km from the river. Its entire history was closely related to the resources provided by the floodplain of the Danube: wood, fish, grain transport, etc. As it emerges from the Specht map (Dumitraşcu, 2006), developed at the end of the 18<sup>th</sup> century, to the south of the village was Lake Rast, extended on several tens of hectares and having seasonal connections with the other lakes at the base of the terrace. In fact, the entire succession of lakes is part of the old course of the Danube, which at the same time has migrated to the south at the base of the Prebalcanic Plateau.

With a population of about 4000 inhabitants in the early 1990s, the demographic decline is noticeable in Rast village, so that in 2017 its population had fallen by about 400 inhabitants.

### *4. Methodological Remarks*

For a clear understanding of the genesis of a potential conflict with a national impact similar to the phenomenon that caused the catastrophic floods in the spring of 2006, the authors carried out more field research, analysing the topographical maps and published materials related to the Rast village location. We also utilised questionnaires and interviewed both village residents and local authorities. In addition, during the catastrophic floods, one of the authors working, as an employee of the County Council, witnessed how the events unfolded. An analysis of the statistical data, documents on the construction of new dwellings for the Rast village population on a new location, interpretation of the questionnaires and the interviews could reveal a clear potential conflict situation between the current population of Rast (local authorities rallied as well) and decisions taken at the regional and central level. The use of current orthophoto maps has allowed the comparative analysis of the two locations and their reporting to the morphogenetic elements of the initial locality.

### *5. Results and Discussion*

The 10 interviews with representatives of local authorities and the 110 questionnaires applied to the heads of households in Rast suggest that there is a potentially conflicting situation that calls for a reconsideration of the attitude of the regional and central authorities. If immediately after the flood, the population not knowing the true cause of this catastrophe, put pressure on local authorities to find a definitive solution, then later they changed their minds by deciding to stay in the original village. This

explains why the Local Council of Rast at its meeting on 1/5/2006 decided, by Decision 10/2006, that the village be moved to a new location, namely in the “Via Boierului” and “Pisacov Coast” area.

From the analysis of the answers (108) to the applied questionnaires, the interest of the villagers in the question is ascertained (the respondents represent almost 100% of the applied questionnaires), as well as the responsibility that they assume as heads of family.

Of those who responded in excess of 80% (the rest did not answer) consider that the disaster was based on a faulty management of the crisis and that the damage could have been greatly diminished, and the households protected by the simultaneous spill of water both in Rast and Bistreţ polders. In fact, interviews with local authorities revealed a direct conflict with the representatives of the Emergency Situations Inspectorate, who would have wanted to flood the premises upstream of the later agreed point. This led to relatively sudden floods of households and much more damage, because the time for evacuation of goods would have been much shorter.

Most of the interviewed authorities and about 65% of the respondents are convinced that the central authorities wanted to protect the Bistreţ estate, where there was an important private fishery. The main argument was that immediately after the dike between the two polders (Rast and Bistreţ) was naturally broken by floodwater, the water level quickly dropped and Rast village was no longer flooded. The arguments of the villagers, supported by the majority of local authorities, are a prerequisite to question the above-mentioned Local Council Decision and to abandon the idea of relocating the village to the new location.

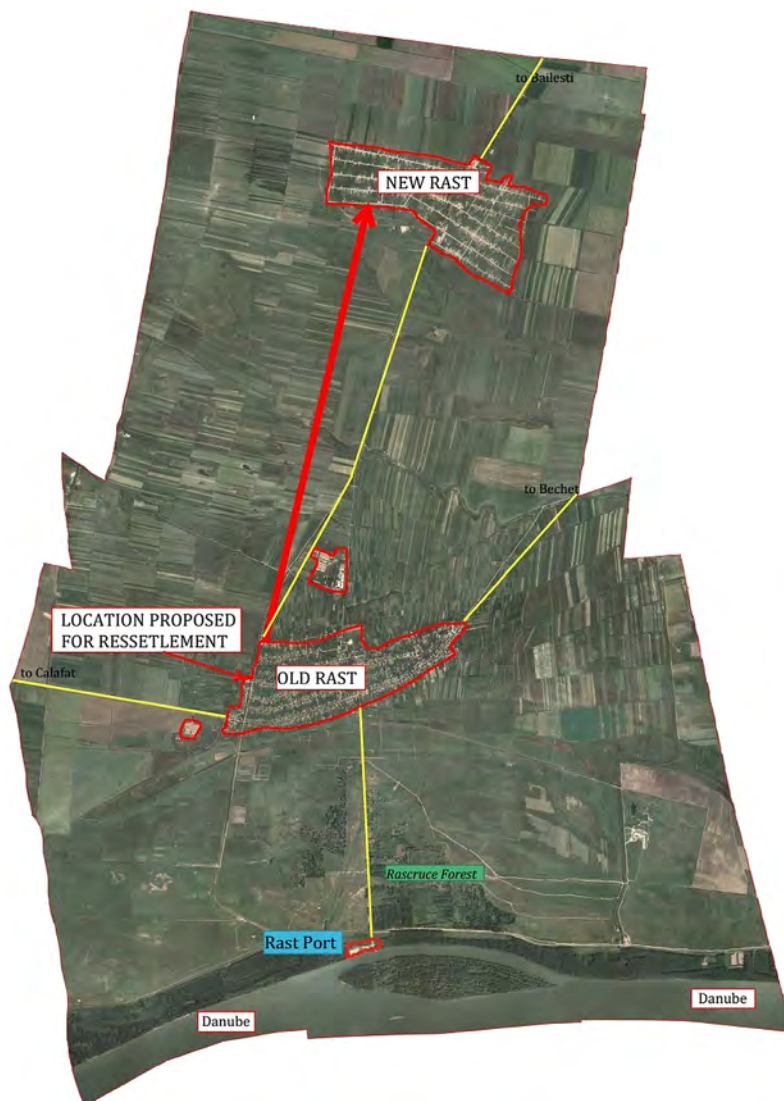
Twelve years after the water withdrawal and the return of the villagers to their households, to enforce a decision with long-lasting effects, taken at a time of crisis, can only be the cause of a direct and open conflict between the villagers and the authorities that have the duty to apply the law. Considering that only 7.5% of the residents of the old site accepted or would agree to move to the new location, there is a strong public opposition to a possible forced resettlement.

Apart from the elements related to the way the crisis was managed, the vast majority of villagers (87%), mention the attachment to the household and the place where they grew, they founded their families and live. The attachment to the place is the main binder, as well as its proximity to the Danube, with its ponds, that over time provided complementary resources for the population. Removing the villagers 7 km away in the open field (Figure 1), means a completely different way of life exclusively focussed on agricultural crops.

The population that moved to New Rast is numerically insignificant, so we believe that the assessment of the dynamics of the total number of inhabitants is reflected predominantly by the demographic processes in the old village. A global analysis of population dynamics between 1994 and 2016 (Figure 2) has shown that the decrease in population was based on the evolution of natural growth (negative in the analysed range), respectively the difference between mortality and birth rate.

The analysis of Figure 2 shows that the effect of the 2006 floods is not reflected in a decrease of the village population, but rather in depopulation. External migration for

Figure 1. The location of the Old and New Rast villages. Source: Processed map by authors.

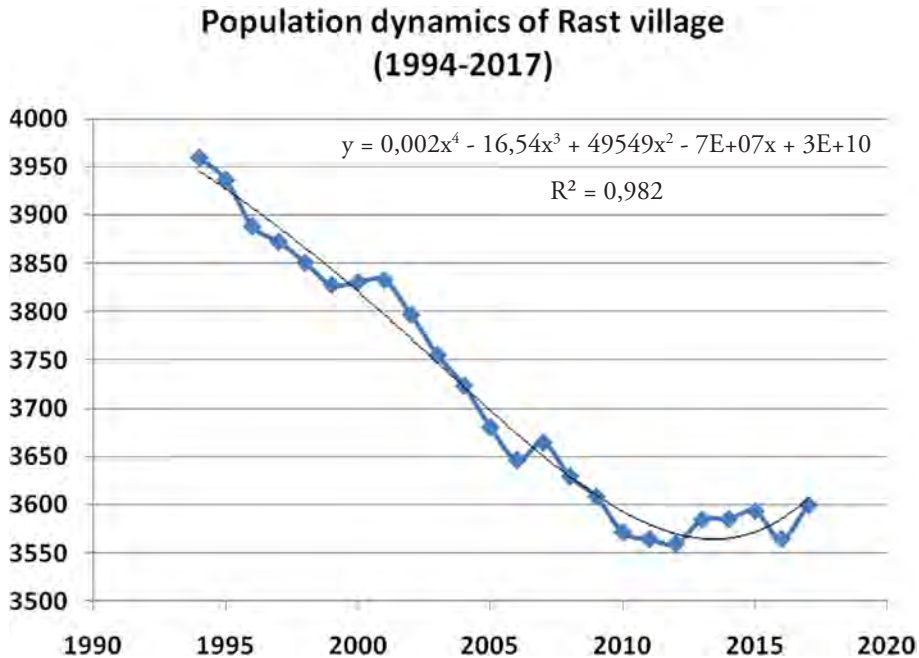


work, although relatively important, has not led to definitive population movements. After 2010 there is even an increase in the number of inhabitants, the overall configuration of the correlation being “golf club”. The high value of  $R^2$  shows that the values show very small deviations from the correlation curve, keeping the overall trend.

## 6. Conclusion

The destruction of historical relationships between the population and its habitat, when there are solutions to protect the locality in its original site, is considered by us an

Figure 2. Population dynamics of Rast village (1994-2017).  
Source: Romanian National Institute for Statistics.



example of unsuccessful practice in crisis management. There is no doubt that there is a certain behavioural inertia of the population, but its consultation, even over a long period of time, is necessary to remedy some errors that have been made in difficult times. The analysis shows that villagers are not afraid of such phenomena but ask the authorities to solve the problems they face in a wider context than the one strictly connected with a certain type of crisis.

The unprecedented conflict that is currently on-going, under latent form for the time, can only be resolved by abandoning the idea of a complete relocation of the village and thus finding solutions to “populate” homes built for flood victims in the New Rast, including managing the allocated space to the new settlement. Applying the decision to relocate the entire village involves stopping supplying households with electricity, refusing to approve the reconstruction of houses (which, in fact, have been rebuilt illegally) and stopping other communal services. Of these, stopping the supply of electricity would trigger a major conflict at the community level, and its cease can only have the solution provided by the population itself.

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## 22. Driving Factors of Land-Use Change in the High Flooded Zone of the Vietnamese Mekong Delta

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### 1. Introduction

The Vietnamese Mekong Delta (VMD) spans 39,700 square km in the south-western of Vietnam. Its population is nearly 18 million people. The Delta is strongly affected by annual floods from the Mekong river system, with nearly 50% of its area inundated during the rainy season (Tri, 2012). This fertile Delta produces more than half of Vietnam's rice output. Some 64% of the Delta is devoted to agricultural purposes (GSO, 2012), and 69% of its labourers work in agriculture, forestry, or fisheries (Vormoor, 2010)(GSO, 2007; Vormoor, 2010).

In the last two decades, the Vietnamese government desired to enhance food security and considered intensifying rice production as the priority of the Delta, particularly in the flood-prone areas. The high-flooded zone comprises the Long Xuyen Quadrangle in the North-West and the Plain of Reeds in the North-East. Agriculture in the high flooded zone is limited by the active acid sulphate soil in the dry season (November to April), and the up to six-month inundation in the rainy season (May to October) (Tri, 2012). Since 1996, the government from national to provincial levels upgraded and constructed large canals to reduce impacts of acid sulphate concentration. After the historical big flood in 2000, they built high dykes to make the rice farming system less dependent on the flooding regime (Triet et al., 2017). Alongside the developed construction of water infrastructure, land-use here has shifted from traditional single rice cropping in the rainy season to double rice cropping in the dry season, and to triple rice cropping year-round.

Increases in hydrological control and intensive rice farming raised concerns about impacts on environment, land-use, and livelihoods. High-dykes prevented floods but also sediment flows into the fields. Consequently, rice fields within the dyke rings lost benefits from floods, such as controlling rats, insects, and diseases, or catching natural fish species. Thus, farmers had to increase use of agrochemicals to ensure high production. Concrete dyke systems decreased overflows and increased water velocity that exacerbates bank erosion (Hashimoto, 2001; Käkönen, 2008). The existence of high-dykes also reduced water retention capacity of the upper Delta which consequently contributed to the increase of water levels and prolonged flood peak in downstream areas (Triet et al., 2017).

Recognising consequences of the rice-oriented policy, the Vietnamese Prime Minister issued Decision 899 to reconstruct the agriculture sector, toward improving added value and sustainable development (Government of Vietnam, 2013). Furthermore, cooperation

between the Dutch and Vietnamese governments also accomplished the Mekong Delta Plan to provide a long-term vision for the development of the VMD (Royal Haskoning DHV et al., 2013). Both the policy and developing plans try to support the practice of farming systems which are more sustainable than the current triple rice cropping. However, their desirable land-use strategy is challenged by pressures of economic development, climate change, and motivation of farmers. A better understanding of land-use changes and their driving factors is the first step to support policy makers in achieving an effective management plan for each sub-region while water-related conflicts among them are minimised.

Land-use change in the VMD has been studied for years by both quantitative and qualitative approaches. Remote sensing has been popular to monitor and investigate the correlation of land-use and flood patterns at Delta scale (Binh et al., 2005; Sakamoto et al., 2007; Kuenzer et al., 2013). However, drivers of change are hardly captured by remote sensing because most of them are not apparent on the land surface (Lambin et al., 2003). In the social sciences, studies were conducted at household and community levels, acquiring interviews and statistical data to assess the role of different drivers (Hoang et al., 2008; Ha et al., 2013; Renaud et al., 2014). However, investigating drivers of land-use change is challenging because of the complex interactions of drivers in different processes at different scales (Turner II et al., 1995). Therefore, this needs a combination of place-based studies, narrative explanations, and systematic analyses of decision making at farm level (Turner II et al., 1995; Cash et al., 2006).

This research therefore conducted a qualitative analysis of semi-structured interviews with 31 farmers living in the high-flooded zone of the VMD. We firstly analysed the land-use change dynamics that have occurred over recent decades. Then, we investigated the principal factors that induced land-use change overtime at household level by applying Turner's multi-scale driving factors framework (Turner II et al., 1995).

## 2. *Theoretical Insights*

Land-use change is a purposive process whereby the surface cover of the land is modified or converted by human activities (Lambin et al., 2003). Referring to Turner's framework of multi-scale driving factors, land-use change is driven in three dimensions, including modalities of land management which operate at a micro-scale and directly affect land-cover, and bio-physical and socio-economic factors which are active at larger scales and can influence local land management. Spatially, driving factors can be considered at any scale, from global to local scales. However, the land-use change process occurred at three scales: region (rural or urban region), landscape (village or watershed), and unit of production (household or farm). Besides the multi-scalar aspect, factors in each dimension can affect each other, and also affect factors in other dimensions both in space and time (Turner II et al., 1995).

In this study, we desired to elaborate the role of multiple driving factors across spatial and temporal scales. Aiming to explore different aspects of driving factors, we approached land-use dynamics from the farmers' perspective. Our semi-structured interviews with farmers were drawn from a general category of factors influencing the on-farm decisions (Wilson, 2007). Then, a detailed list of driving factors was systematically generated from these

empirical data by applying grounded theory methodology and a colour coding tool (Strauss and Corbin, 1996; Stottok, 2010). All bio-physical and socio-economic factors influencing farmers' decisions at each stage were collected and categorised into three levels based on their functions. The levels consist of nation, community and household (Wilson, 2007).

### 3. Data Collection and Analysis

The centre of the Long Xuyen Quadrangle belongs to An Giang province, and includes four districts, Chau Phu, Tinh Bien, Tri Ton, and Chau Thanh, which form the studied area (Figures 1 and 2). Their total area is approximately 1,760 square kilometres, occupying 49.76% of the total area of An Giang province. In 2016, 80% area of the four districts were used for agriculture. Rice cropping was practiced on 61.96% of the agricultural land, or 878.43 km<sup>2</sup>. The total population in the four districts is 673,562 inh. and comprises 166,643 households (Statistical Office of An Giang Province, 2016).

Figure 1. The Vietnamese Mekong Delta. Sources: Duong et al. (2014), Le et al. (2018) and <http://diva-gis.org/> (accessed on 2/2018).



In each studied district, a commune was randomly selected to conduct six to nine interviews. In total, 31 households were interviewed in January and April of 2016 (Table 1). Households were identified through a snowball approach that started with recommendations from local agricultural officers. To obtain fully information about land-use history and factors influencing the decision of changes, we preferred interviewing farmers who had long time experience and worked as the main labour in the households. We adopted a list of bio-physical and socio-economic factors at household level (internal factors) and community and national level (external factors) to guide the conversation with farmers

(Wilson, 2007). The interviewees were frequently asked for a deep explanation of “why” and “how” the driving factors affected their decision at a certain stage of change.

Figure 2. The research sites in An Giang province. Source: <http://diva-gis.org/> (accessed on 2/2018).

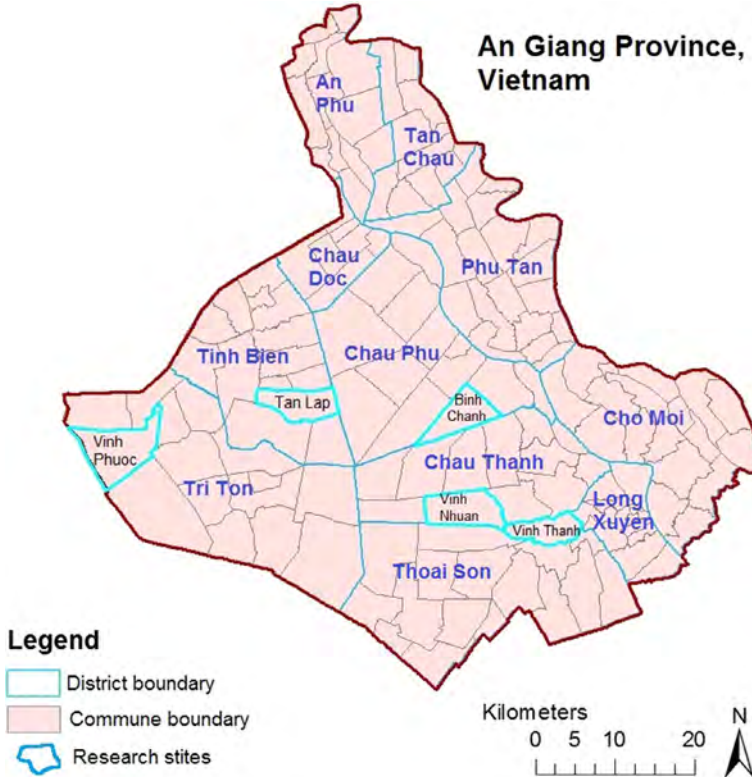


Table 1. Characteristics of farmers participated in the interview and their farms.

Districts	Tri Ton	Tinh Bien	Chau Thanh		Chau Phu
Communes n: the number of interviewed farmers	Vinh Phuoc (n=6)	Tan Lap (n=9)	Vinh Nhuan (n=6)	Vinh Thanh (n=2)	Binh Chanh (n=8)
Age (years) m = mean; numbers in the bracket: (min-max)	m=53 (43-65)	m=52 (33-74)	m=50 (39-65)	m=61 (50-71)	m=52 (42-72)
Education equal to primary level (people)	5	4	3	1	0
Female (people)	0	1	1	0	0
Farm size (ha) m = mean; numbers in the bracket: (min-max)	m=8.38 (1-33)	m=2.74 (0.1-5.6)	m=3.58 (2-7)	m=0.49 (0.4-0.6)	m=3.73 (1.2-9)
Farms inside high dykes (farms)	3	6	6	2	6
Triple and double rice cropping (farms)	3	6	4	1	5
Triple/ double rice + vegetables (farms)	3	2	1	0	3
Vegetable specialising (farms)	0	1	1	1	0

The interviews were audio-recorded and then transcribed to allow for analysis of the content. Our transcript analysis firstly investigated historical land-use of the farms and contemporary events happening in the households and community. Since the average age of the interviewees was 50-years old, their memories and experience on farming had started since the 1970s. Secondly, we applied grounded theory methodology and a colour coding tool to build a detailed list of driving factors. The principal driving factors were identified regarding how many times they were mentioned by the farmers.

#### *4. Results*

Although the rice-based intensification required several preconditions, such as the adoption of high-yield rice varieties and the development of water infrastructure (Tanaka, 1995), our analysis found multiple driving factors involved in the process. We started with a list of nine primary driving factors. Each factor was assigned a colour to distinguish in the text. Finally, 38 sub-driving factors, including 25 socio-economic factors and 13 bio-physical factors, emerged from farmers' responses (Table 2). Bio-physical (H) and socio-economic factors (I) at farm and household level were often mentioned by farmers, in both stages of the rice-based intensification. The following factors are the actions of local government (C), the community's pressures (D), and the development of infrastructure (B). These factors play a role at community level. Besides, farmers also recognised the actions of local government (C) were orientated by the policies at national level (A).

Considering the difference between the two stages of change, we noticed a rise of socio-economic factors stimulated the practice of triple rice cropping. Those factors could operate at community level, such as the development of the rice market (F2) and agricultural services (F3), or at household level such as the need to afford increased living expenses (I4) and more secure job (I6). Particularly, many farmers believed that increasing the number of cropping seasons per year would help them earn more income (I8).

#### *5. Discussion and Conclusion*

Our research found that driving factors at community level played an essential role to facilitate the prerequisites of rice-based intensification in the high-flooded zone of the VMD. We saw local officers had a strong impact on mobilising farmers to change from single to double rice cropping whereas the opinions of the majority in the community had a significant voice in building high dykes to implement triple rice cropping. Moreover, the community pressures can be considered as a two-way effecting factor. On one hand, the major group of farmers can delay the government's policy implementation. On the other hand, they can force individual farmers to follow the decision of the community. Therefore, it is necessary to consider the community's opinions and characteristics to formulate new land-use planning, or introduce new farming systems.

In addition, the change from single rice cropping to double rice cropping, and from double rice cropping to triple rice cropping required several preconditions, such as the adoption of high-yield rice varieties and the development of canals (reducing effects of acid sulphate soils and irrigation in the dry season) and high dykes (full flood protection and irrigation). The analysis therefore also needs to elaborate how the above preconditions were enabled by focusing on the cross-scale interactions among driving factors emerging from farmers' explanations.

Table 2. Driving factors and their common level among case studied.

Driving factors	Sub-driving factors	Single to Double rice cropping (n=24)	Double to triple rice cropping (n=23)
(A) Policies	A1. Concentrate economic policy (1975-1986)	2	0
	A2. Re-arrange land ownership (1975-1986)	5	0
	A3. Food-security policy (since 1986)	10	2
	A4. Natural disaster prevention and control	0	4
	A5. "New Rural" movement (since 2010) and "Large rice field" model (since 2013)	0	1
(B) Infra-structures	B1. Canals	16	4
	B2. August dykes	1	0
	B3. High dykes and roads	1	18
	B4. Others (Solar electricity, water...)	1	1
(C) Local government actions	C1. Cooperative groups	1	1
	C2a. Mobilising farmers through meeting and collecting agreements	18	15
	C2b. Investing in building infrastructure	9	11
	C2c. Offer financial and technical support: intensive rice cropping	10	5
	C3. Introduce farmers to high-value farming models	0	0
(D) Community pressures	D1. Opinion of the majority group	12	16
	D2. Success of neighbours or others in the community	11	8
(E) Common bio-physical conditions	E1. Local weather and flooding regime	5	4
	E2. Locate in an agriculture zone (bounded by canals or high dykes)	10	8
	E3. Farming schedule	3	1
(F) Common socio-economic conditions	F1. Agricultural services	8	16
	F2. Traders and Market	3	8
	F3. Price of agricultural products	0	4
	F4. Secured price and supports from the rice companies	0	0
(G) Farmer characteristics	G1. Age	0	1
	G2. Education/ knowledge	4	1
	G3. Interests	3	7
(H) Farm's bio-physical conditions	H1. Location (close or far from roads, canals)	4	3
	H2. Land-size (large or small)	7	8
	H3. Land form (elevated or low, flat or rough)	2	2
	H4. Soil quality (acid sulphate soil)	11	9
	H5. Water availability	5	4
	H6. Farmers' actions to improve physical conditions	8	7

(I) Farm's socio-economic conditions	I1. Immigration	4	49	1	45
	I2. Farming history of the family (or farming experience)	5		1	
	I3. Family structure/Family labour	5		2	
	I4. Household expense	4		10	
	I5. Social network	3		3	
	I6. More jobs/ Other livelihoods	4		7	
	I7. Financial capacity	7		5	
	I8. Production or profit earned from farming system	17		16	

In terms of methodology, our study covered long period (40 years), and different stages of the rice-based intensification. We not only adopted Turner II's (1995) multi-driving factors but also applied transition theory and tools from the social sciences to investigate land-use change and its driving factors. We acknowledged that using only qualitative interviews could pose a risk to the validity of results, and to the generalisability of the findings, which can be more reliable if quantitative data are used. However, our achievement is the explanation and deep understanding of the role of each driving factor in many stages of change.

Besides, the colour coding was conducted by the first author only. It is time consuming and requires deep understanding the context of conversations, the geographical and demographic characteristics, and community culture of the studied areas. The quality of the results could be improved by validating coding choices, for example two coders compare their coding and discuss any differences prior to creating a final common set of codes. The transcription is also improved by double checking and coding validation.

#### *Acknowledgements*

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## 23. Intérêts des bases de données LPIS (Land Parcel Identification System) pour l'étude des conséquences paysagères de la transformation foncière des exploitations agricoles

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### 1. Introduction

Paysages emblématiques des campagnes de l'arc atlantique européen, les bocages ont connu une série de transformations liées au renouvellement profond du modèle agricole français engagé au début des années 1960 (Flatrès, 1979 ; Antoine et Marguerie, 2007). Alors que les paysages de bocage font l'objet d'une attention croissante depuis plusieurs années, tant sur le plan patrimonial qu'en matière de protection de l'environnement (Toublanc et Luginbühl, 2007), l'objet de cette communication est d'interroger le rôle spécifique de l'agrandissement des exploitations agricoles dans l'évolution de ces paysages emblématiques des campagnes de l'ouest français

Dans cette perspective, nous présentons ici une méthodologie permettant l'analyse conjointe de la transformation foncière des exploitations agricoles et des dynamiques paysagères, à une échelle spatio-temporelle fine. Cette méthode s'appuie sur la construction d'un système d'information géographique diachronique à échelle parcellaire, alimenté par la base européenne d'identification parcellaire (*Land Parcel Information System*, LPIS), dans sa déclinaison française : le Registre Parcellaire Graphique (RPG).

Cette démarche a été expérimentée pour l'étude des transformations paysagères dans le bassin versant du Tortillon (1 500 hectares), situé dans la région agricole du Bocage Virois (département du Calvados). Dans cette région bocagère fortement spécialisée dans la production laitière, l'agrandissement rapide des structures agricoles s'est accompagné d'une transformation parfois spectaculaire des paysages de bocage.

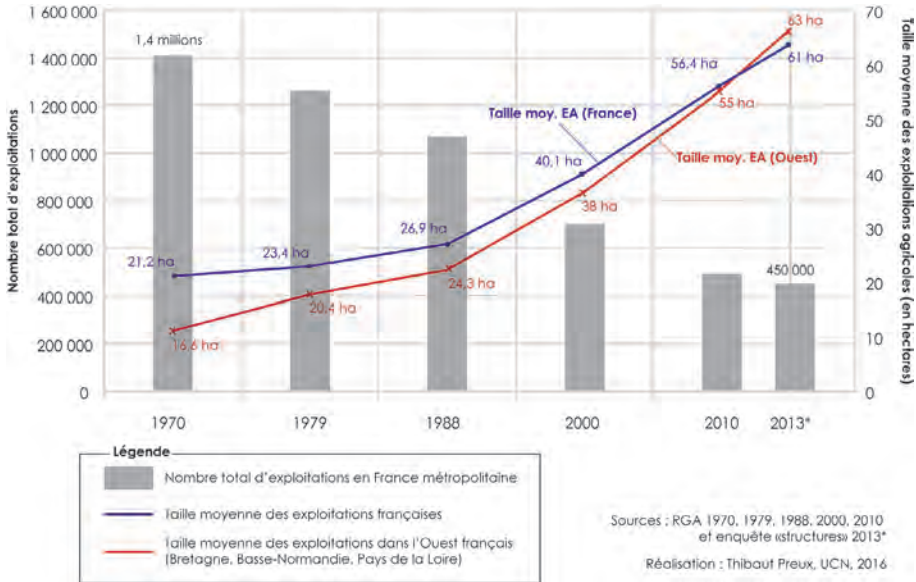
### 2. De l'agrandissement des exploitations agricoles à la transformation des paysages de bocage : éléments de contexte et positionnement théorique

Dans les années 1960, un ensemble d'outils législatifs et de subventions ciblées sont mis en place afin de consolider la croissance des exploitations agricoles jugées les plus aptes à la modernisation de la production, tout en accélérant la disparition des petites structures (Hervieu et al., 2010).

En un peu plus de quarante ans, deux tiers des exploitations agricoles ont cessé leur activité en France, tandis que la taille moyenne des structures passait de 21,2 hectares en moyenne en 1970 à plus de 60 hectares en 2013 (Figure 1). Cette dynamique de concentration foncière a été particulièrement vive dans l'ouest de la France, région marquée par une forte spécialisation dans l'élevage laitier (Margetic et al., 2014).

En partant du postulat selon lequel les structures matérielles du paysage peuvent être abordées comme le produit du fonctionnement des systèmes agricoles dans l'espace (Defontaine, 2001 ; Laurent et Thion, 2005 ; Marie, 2009), nous faisons l'hypothèse que

Figure 1. Évolution du nombre et de la taille moyenne des exploitations agricoles en France et dans l'ouest français, entre 1970 et 2013. Sources : RGA 1970, 1979, 1988, 2000, 2010 et enquête « Structures » 2013, AGRESTE.



ce processus d'agrandissement et de concentration foncière des exploitations agricoles implique une évolution des pratiques des agriculteurs, qui s'inscrivent progressivement dans le paysage (Croix, 1999 ; Houet, 2008). Dans un contexte de diminution continue de l'emploi agricole, l'agrandissement des exploitations s'accompagne en effet d'une progression de la productivité physique du travail et d'une intensification des systèmes techniques des exploitations (Gambino, Laisney et Vert, 2012). Dans les élevages laitiers, cela prend notamment la forme d'une substitution progressive du pâturage des troupeaux par la culture du maïs fourrager, qui permet de sécuriser l'approvisionnement fourrager tout en intensifiant la production laitière. Moins nombreux, les agriculteurs abandonnent également des tâches peu rentables, telles que l'entretien des réseaux de haies et des pré-vergers, qui mobilisaient auparavant une main-d'œuvre familiale abondante et peu coûteuse (Preux, Delahaye et Marie, 2015).

Ces changements s'inscrivent dans le paysage « par petites touches », au gré des recompositions foncières des exploitations et de l'évolution des systèmes techniques et productifs mis en œuvre par les agriculteurs. Subtiles à l'échelle locale (arasement d'une haie, regroupement de parcelles, retournement de prairies...) et peu perceptibles à l'échelle de quelques décennies, ces transformations paysagères peuvent avoir des conséquences environnementales importantes, notamment en matière de dégradation de la qualité des eaux continentales ou d'érosion des sols (Missionnier, 1976 ; Delahaye, 2002).

L'analyse de ces dynamiques paysagères soulève des enjeux méthodologiques spécifiques, en raison de l'inadéquation des bases de données existantes avec l'analyse de processus spatiaux présentant une résolution fine et une haute fréquence temporelle.

### 3. Intérêts des bases de données LPIS pour l'étude des implications paysagères de la transformation des exploitations agricoles : propositions méthodologiques

Réalisé tous les dix ans par le ministère de l'Agriculture, le recensement général agricole (RGA) a longtemps fait figure de base de données incontournable pour quiconque s'intéressait aux transformations agricoles. Alors que la gestion des conséquences environnementales du modèle agricole occupe une place croissante dans les politiques publiques, ces données permettent en effet de connaître l'état biophysique des sols sur l'ensemble du territoire national, avec une précision thématique remarquable. Depuis le dernier recensement de 2010, la diffusion du RGA a toutefois été considérablement restreinte (facturation de l'accès aux données individuelles, habilitation au secret statistique nécessaire...). Dans ce contexte, de nombreux chercheurs se sont tournés vers les données du RGA agrégées à l'échelle communale, pourtant peu pertinentes pour l'étude des transformations agricoles à une échelle fine (secrétisation partielle des données, variabilité spatiale du maillage administratif...).

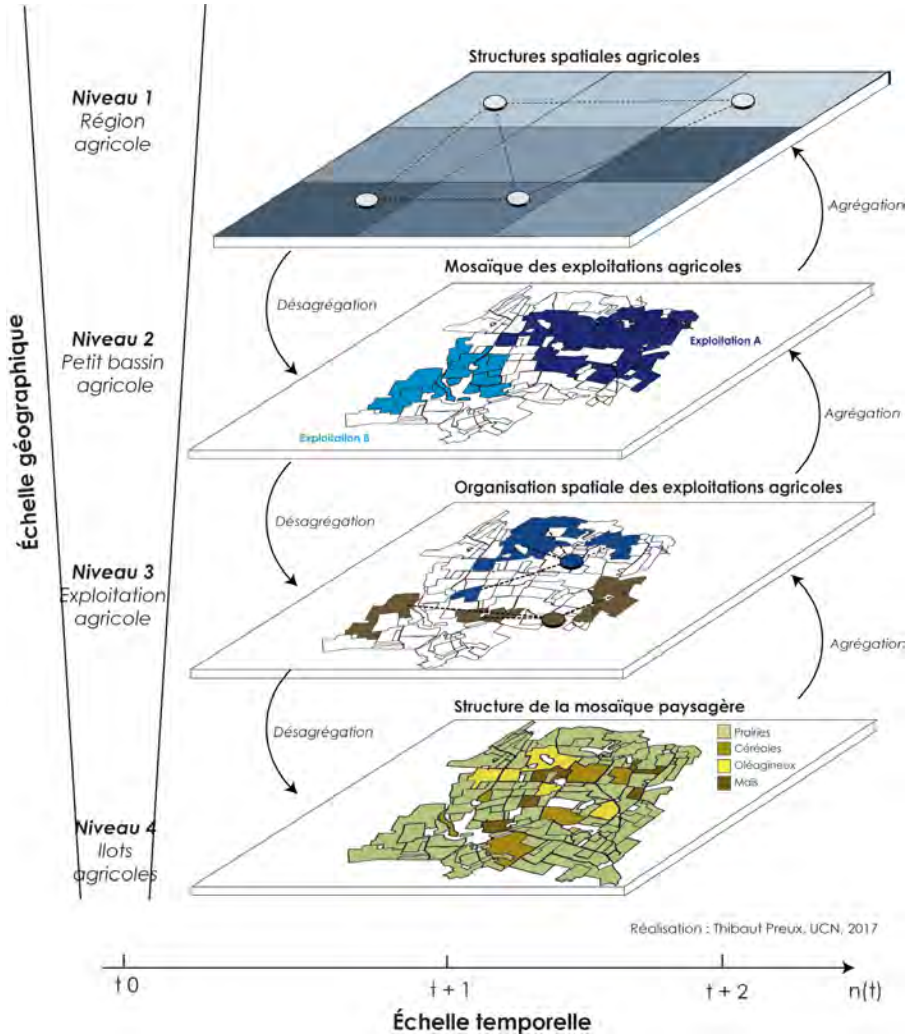
Aux côtés du RGA, deux inventaires biophysiques permettent de cartographier les modes d'occupation des sols et de suivre leurs évolutions : l'enquête annuelle TERUTI-LUCAS, élaborée à partir de points de sondages aléatoires réalisés sur le terrain par des enquêteurs, et l'inventaire européen d'occupation des sols (Corine Land Cover), qui repose sur la photo-interprétation d'images aériennes à une échelle de 1 : 100 000ème, selon une nomenclature en 44 types d'occupation du sol. La résolution spatiale de ces deux bases de données est toutefois peu adaptée à l'analyse de la structure des paysages bocagers, caractérisés par une mosaïque paysagère très hétérogène et fragmentée (Hubert-Moy, 2004). Dans ce contexte, la diffusion récente d'une base de données européenne d'identification parcellaire constitue une opportunité pour analyser les relations entre activités agricoles et paysages sous un angle nouveau (Cantelaube et Carles, 2014).

Le 17 juillet 2000, le conseil européen établissait en effet un programme de gestion intégré des aides agricoles européennes s'appuyant sur un système informatisé d'identification des parcelles agricoles : le *Land Parcel Identification System* (LPIS). En France, ce système d'identification a été mis en service en 2005, sous le nom de « registre parcellaire graphique » (RPG).

Le RPG se présente sous la forme d'une couche vectorielle de type surfacique, comportant la géométrie des îlots culturaux dessinés par les agriculteurs (ensemble contigu de parcelles agricoles exploitées par un seul et même agriculteur), à laquelle est associée une table attributaire comprenant des informations relatives à la forme et à la composition de chaque îlot (taille, cultures de l'îlot, commune de localisation), ainsi que des informations statistiques concernant l'exploitation déclarante (forme juridique, superficie déclarée, classe d'âge de l'exploitant...). En 2013, cette base de données recensait plus de 6,3 millions d'îlots agricoles, correspondant à 25,6 millions d'hectares déclarés par un peu plus de 400 000 agriculteurs, en France métropolitaine. Le taux de couverture national du registre parcellaire graphique est estimé à 94,9 % de la surface agricole nationale en 2010 (Marie et al., 2015).

Depuis 2007, une version détaillée du registre parcellaire graphique est accessible aux chercheurs. Elle associe à chaque îlot un identifiant anonyme d'exploitation agricole qui permet de relier les parcelles agricoles aux exploitations qui les utilisent. Le RPG permet

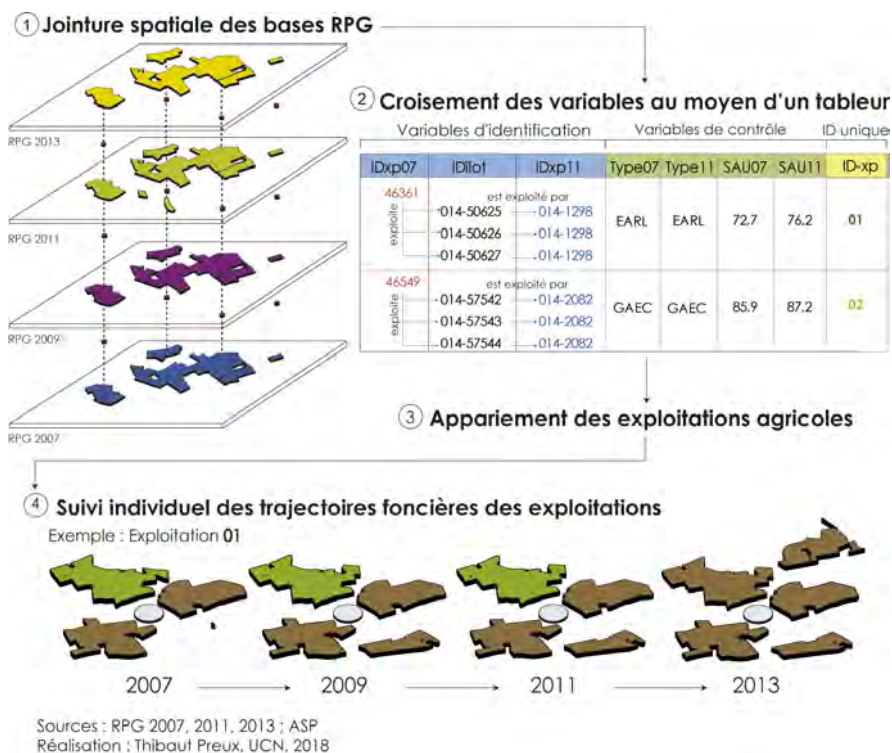
Figure 2. Intérêts de l'utilisation du registre parcellaire graphique à travers les échelles géographiques. Sources : Réalisation de l'auteur.



ainsi de connecter deux types d'analyses, généralement menées séparément dans les études portant sur les relations agriculture-paysage : l'étude multiscale des formes produites par l'agriculture d'une part, et l'analyse des processus qui les font évoluer, d'autre part (Preux, Delahaye et Marie, 2014) (Figure 2). La haute fréquence de mise à jour de cette base de données permet également d'envisager la mise en place d'observatoires récurrents des processus à l'interface nature-société en milieu rural (Sède-Marceau et al., 2011).

À plus petite échelle, le registre parcellaire graphique constitue une alternative crédible aux bases de données existantes pour l'analyse des usages agricoles des sols et de leurs transformations (Marie et al., 2015).

Figure 3. Présentation de la méthodologie d'appariement des îlots RPG d'une année sur l'autre. Sources : RPG 2007-2013, ASP ; réalisation de l'auteur.



Si le RPG peut être considéré comme un outil pertinent pour décrypter les logiques d'organisation spatiale des exploitations à un moment précis, il est toutefois plus complexe à exploiter dans une perspective diachronique. La géométrie et les propriétés géographiques des îlots agricoles changent en effet d'une année sur l'autre, ce qui empêche le suivi individuel des exploitations agricoles (modification des identifiants d'exploitations d'une année sur l'autre, évolution de la morphologie des îlots...). Afin de contourner ces difficultés, nous avons mis en place un protocole d'appariement automatique des données du RPG (Figure 3). Il repose sur l'intersection des îlots RPG pour les quatre dates retenues (2007, 2009, 2011, 2013), afin d'identifier des formes spatiales récurrentes d'une année sur l'autre (Preux, Delahaye et Marie, 2014). La cohérence de l'appariement est estimée au moyen de variables de contrôle (superficie de l'exploitation, statut juridique...). Lorsque l'appariement est satisfaisant, un identifiant unique et stable dans le temps est affecté aux exploitations. Dans le bassin versant du Tortillon, cette méthode a permis d'assurer le suivi des trajectoires individuelles de 35 des 37 exploitations agricoles du bassin versant entre 2007 et 2013.

Parallèlement, les données parcellaires du RPG sont intégrées dans un système d'information géographique diachronique afin d'analyser les principales transformations paysagères (changements d'usages des sols, de la morphologie parcellaire...).

#### 4. Résultats et discussion

##### 4.1. Les principales dynamiques paysagères dans le bassin versant du Tortillon

La surface agricole utile du bassin versant du Tortillon est globalement stable entre 2007 et 2013. L'essentiel des dynamiques paysagères concerne donc une modification sensible des usages agricoles des sols. On observe ainsi une progression constante des surfaces labourées entre 2007 et 2013 (la part du maïs fourrager dans la SAU passe de 16,6 à 27,6 %, celle des céréales de 21,5 % à 26 %) qui est associée à une diminution des prairies permanentes et des vergers. Le retournement de prairies au profit des labours constitue le principal type de trajectoire de changement d'usage des sols (234 hectares au total, soit 18 % de la SAU et 71 % de l'ensemble des trajectoires de changements d'usages des sols). Les autres types de transitions sont limités à quelques mouvements exceptionnels : implantation de prairies dans un cycle de rotation culturales, augmentation des surfaces boisées suite au développement d'une filière de culture de sapins de Noël.

L'accroissement des surfaces cultivées au détriment des prairies permanentes s'accompagne d'une restructuration rapide de la trame parcellaire. En dehors de toute procédure d'aménagement foncier, 56 % de la surface agricole utile a fait l'objet d'une modification de la forme, de la taille ou de l'emprise du parcellaire agricole. Quelques indicateurs traduisent la vigueur du processus de rationalisation à l'œuvre. La taille moyenne des parcelles est ainsi passée de 2 hectares à 3,4 hectares entre 2007 et 2013, tandis qu'une simplification de la forme du parcellaire a été opérée (Figure 4). Cette restructuration du parcellaire agricole s'accompagne inévitablement d'une érosion de la densité de haies, qui passe de 105,1 mètres linéaires par hectare de SAU en moyenne en 2007 à 89,4 ml/ha en 2013. Cela correspond à une suppression nette de 19 kilomètres de haies entre 2007 et 2013. Le regroupement de plusieurs parcelles se traduit fréquemment par un arasement des haies intermédiaires : 77 % des haies arrachées jouxtaient une parcelle dont la morphologie a évolué entre 2007 et 2013.

##### 4.2. Vers une lecture géographique des transformations paysagères : éléments de discussion

La cartographie des dynamiques paysagères permet de mettre en lumière plusieurs types de trajectoires paysagères, correspondant soit à un changement d'occupation du sol sans modification de la structure parcellaire (3,5 % de la SAU totale), soit un regroupement de parcelles de cultures, sans modification de l'occupation du sol (22,3 % de la SAU). Un troisième type de trajectoire correspond au regroupement et à la mise en culture de plusieurs parcelles antérieurement en prairies (5,4 % de la SAU). Ces trajectoires sont relativement spectaculaires, car elles conduisent à une ouverture massive du paysage (Figure 4, cartes de droite).

Le croisement de la cartographie des dynamiques paysagères à celle des transactions foncières identifiées par l'appariement du RPG permet de proposer quelques pistes d'explications quant à l'organisation spatiale des transformations paysagères. La majorité des dynamiques paysagères (changement d'occupation du sol, modification du parcellaire, arasement de haies) est associée à un transfert de terres agricoles entre exploitants. Ainsi, 61 % des parcelles ayant connu un changement d'occupation du sol et 59 % des parcelles dont les limites ont été modifiées entre 2007 et 2013 avaient fait l'objet d'un transfert

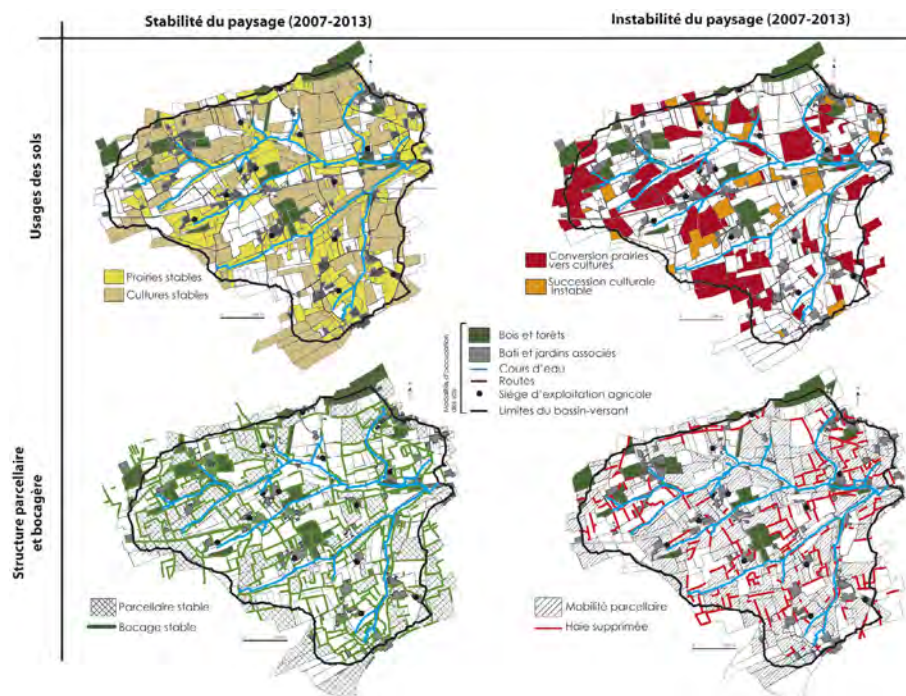


entre exploitations dans la même période. Ces chiffres élevés tendent à étayer l'hypothèse d'une coévolution des structures paysagères et des structures d'exploitations agricoles.

Le second niveau de lecture concerne au contraire les espaces marqués par une relative stabilité paysagère (Figure 4, cartes de gauche). Il s'agit essentiellement de fonds de vallées, ainsi que de parcelles densément embocagées et majoritairement herbagères,, situées à proximité des hameaux d'habitation et des sièges d'exploitations agricoles.

Le maintien d'auréoles herbagères autour des sièges d'exploitation s'explique assez logiquement par la contrainte du pâturage et de la double traite quotidienne, qui incite les éleveurs laitiers à maintenir les parcelles les plus proches de leur stabulation en prairies permanentes (Marie, 2009). L'analyse du RPG montre également que les motifs paysagers stables dans le temps sont majoritairement tenus par de très petites exploitations (inférieures à 4 hectares), dirigées par des agriculteurs âgés de plus de 60 ans, ce qui correspond généralement aux parcelles conservées par les agriculteurs au moment de leur cessation d'activité (retraite, faillite...). Par ailleurs, environ 40 % de ces motifs paysagers ne sont pas représentés dans le RPG. On peut donc faire l'hypothèse que ces surfaces soient exploitées par des catégories socio-professionnelles extérieures à la sphère agricole professionnelle, qui y réalise des activités de loisir (élevage de chevaux par exemple) ou tournées vers l'autoconsommation (élevage ovin, vergers...), dans ces espaces généralement peu adaptés à la mécanisation de la production agricole.

Figure 4. Cartographie des dynamiques paysagères dans le bassin-versant du Tortillon (Bocage Virois, Calvados). Sources : RPG 2007, 2009, 2011, 2013 ; ASP ; réalisation de l'auteur.



## 5. Conclusion

Ces quelques observations traduisent une évolution différenciée des paysages de bocage, avec une évolution rapide des structures paysagères dans les portions de l'espace agricole présentant des caractéristiques à priori favorables au développement de systèmes laitiers intensifs, tandis que l'on observe une relative stabilité de la trame paysagère dans les fonds de vallées, autour des hameaux et sièges d'exploitations agricoles. Dans cette lecture géographique des transformations paysagères, la diffusion récurrente du RPG nous semble constituer une opportunité pour renouveler les recherches portant sur la dimension spatiale des transformations agricoles. Cette base de données peut en effet être envisagée comme un outil d'analyse multi-échelles des recompositions foncières des exploitations agricoles (à l'échelle des îlots agricoles, du territoire de l'exploitation et du maillage d'exploitations agricoles). En nous plaçant dans le champ de l'analyse spatiale et de la modélisation, l'emboîtement de ces trois échelles d'analyse doit permettre de repérer les structures globales émergeant des interactions entre exploitations, au niveau local.

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## 24. Quels usages pour les paysages patrimoniaux ? Réflexion à partir des grands sites paysagers wallons

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### 1. Introduction

L'intérêt porté au paysage s'est renouvelé durant les dernières décennies, d'une part institutionnellement, grâce à la signature de la Convention européenne du paysage (Conseil de l'Europe, 2000) qui considère la diversité paysagère européenne comme une spécificité identitaire et un atout économique, environnemental et social, et d'autre part, à la croissance de la demande en tourisme « vert » (Butzmann et Job, 2017) et à la reconnaissance de la contribution des paysages aux services écosystémiques (Daniel et al., 2012). Différents États ont mis en place, amélioré ou confirmé des statuts de protection pour leurs paysages jugés patrimoniaux.

Cette recherche cible les paysages agricoles patrimoniaux, souvent modelés par des décennies d'adaptation du milieu et de travail de la terre. Or, la diminution linéaire du nombre d'agriculteurs dans de nombreuses régions européennes engendre la nécessité de repenser le mode de gestion de ces paysages (Schmitz, 2002). De plus, malgré la valeur incontestée des statuts de protection, leur mise en application est souvent perçue comme étant susceptible de mettre à mal le développement économique des communautés locales, en particulier là où l'activité touristique génère une faible part des revenus. C'est ainsi qu'au Québec, cette perception est largement responsable du fait que, près de 15 ans après l'instauration du statut, aucun Paysage humanisé n'a encore été créé (Domon et Ruiz, 2015). Ailleurs, ce statut de protection est souvent utilisé comme un label qui permet la différenciation d'une destination touristique (Bénois et Milian, 2013).

La recherche explore, pour des paysages ruraux, cette apparente opposition entre patrimonialisation et développement local et questionne les coûts d'entretien et les usages possibles de ces paysages reconnus comme patrimoniaux. Ces paysages se retrouvent investis d'une nouvelle perception de leurs valeurs mais ne sont plus nécessairement entretenus par le système agricole qui les a forgés, et peuvent, pour une partie des acteurs, être considérés comme un obstacle au développement économique de la région.

À travers l'étude de deux cas wallons, nous décrivons les enjeux en coprésence, puis, grâce à l'utilisation d'une matrice de créativité (De Graef et al., 2009), nous pointerons les perspectives de développement économique et de gestion de ces paysages patrimoniaux. Car, si la question des bases de la reconnaissance de la qualité patrimoniale des paysages est déjà traitée, y compris en Wallonie (Droeven, Dubois et Feltz, 2007), leur gestion au quotidien demeure un champ de recherche ouvert. Quels types d'activités peuvent-ils

/ devraient-ils accueillir ? Quelles limites proposer à leur utilisation y compris leur valorisation touristique ? Comment concilier la mise en valeur des structures paysagères patrimoniales et l'évolution des systèmes économiques qui influent nécessairement sur cette structure ?

## 2. *Considérations théoriques*

Selon la Convention Européenne du Paysage, le paysage est une portion de territoire (assemblage de propriétés privées) mais perçu par la collectivité et donc un héritage commun (Antrop, 2005). Cette même convention justifie la nécessité de protéger les paysages en raison de leur caractère patrimonial, sans cependant en préciser les critères (Droeven, Dubois et Feltz, 2007). Cela laisse à penser que tout paysage pourrait être protégé et considéré comme patrimonial. Le terme patrimoine, qui désigne à l'origine un héritage familial, est devenu également synonyme d'héritage collectif par glissement sémantique (Di Méo, 2007). Au sens de la Convention européenne du paysage, protéger le paysage c'est agir en vue de conserver et maintenir les aspects significatifs ou caractéristiques de celui-ci. Toutefois, l'idée de protection stricte semble en contradiction même avec le concept de paysage en tant que système dynamique complexe qui évolue sous la pression de nombreux acteurs et facteurs biophysiques et anthropiques.

Un paysage patrimonial peut être un paysage classé par des scientifiques et experts qui, sur la base des caractéristiques historiques, écologiques ou autres, y voient une expression remarquable d'un système anthropique. Il peut aussi être un paysage médiatisé par des représentations artistiques, ou encore simplement reconnu comme un élément identitaire par une communauté (Mitchell et Buggey, 2000). Or, comme en témoigne la pratique, des visions conflictuelles peuvent s'amorcer, tant au niveau de la reconnaissance patrimoniale elle-même que des conditions de mise en application des plans d'intervention liés aux statuts de reconnaissance de paysages habités et façonnés par leurs habitants. Lahaye (2007) propose d'analyser ces conflits de triple point de vue de la cohabitation des usages, des valeurs attribuées à la Nature et de la mise en valeur de ces sites protégés.

Pour Di Méo (2007), territoire et patrimoine sont gémellaires par leur nature doublement matérielle et idéelle ainsi qu'en raison de la nécessité d'appropriation des deux par le ou les individus. Il souligne qu'on peut désormais patrimonialiser des pans entiers de territoires. Toutefois, patrimoine et paysage patrimonial ne s'appréhendent pas à la même échelle, le patrimoine à l'échelle du détail, de l'objet patrimonial, le paysage patrimonial à une échelle plus petite, où les détails s'estompent (Droeven, Dubois et Feltz, 2007).

La question du type de développement souhaité et souhaitable dans les paysages y compris patrimoniaux se pose également dans la littérature. Ils sont une catégorie particulière de conflits d'occupation du sol qui se distingueraient par un poids plus important de la perception et des valeurs qui modèlent cette perception. Avec la reconnaissance, les paysages gagnent en attractivité touristique au risque de se touristifier totalement. La touristification a déjà été étudié (ex. Bellini et Pasquinelli, 2016) au niveau urbain mais manque encore d'études au niveau des espaces ruraux. Vos et Klijn (2000) parlent de paradoxe touristique car le développement d'infrastructures touristiques peut détruire les qualités originales ayant conduit à la patrimonialisation. La question qui se pose aussi pour les paysages agricoles est la diminution du nombre d'agriculteurs et la mécanisation

croissante qui pourraient contribuer à la disparition des structures (patterns) patrimoniales (Kerkstra et Vrijlandt, 1990 ; Schmitz, 2002 ; Woods, 2011). Enfin, la question du développement de projets d'énergie renouvelables dans de tels paysages est également un sujet d'actualité. Certains posent le caractère patrimonial comme critère d'exclusion à ce type de développement (ex. Lejeune et Feltz, 2008) alors que d'autres rappellent que les paysages patrimoniaux d'aujourd'hui peuvent être les paysages énergétiques d'hier (Pasqualetti, 2000).

### *3. Considérations méthodologiques*

Pour enrichir ces développements théoriques, la recherche repose sur deux analyses de cas en Wallonie : premièrement, la Boucle de l'Ourthe à Neupré-Esneux, premier et seul Grand Site Paysager retenu en Wallonie à l'heure actuelle, caractérisé par un paysage de méandre encaissé à l'occupation du sol forestière (des feuillus sur les plus fortes pentes) et agricole (surtout des prairies) ; deuxièmement, le paysage bocager du pays de Herve à Charneux qui est repris en périmètre d'intérêt paysager au plan de secteur et jouit d'une attention particulière des scientifiques mais également des politiques depuis plusieurs décennies et qui pourrait obtenir le statut de grand site paysager. Ces sites sont volontairement géographiquement proches, les densités de population et la pression urbaine y sont fortes.

Chacun de ces sites a d'abord été analysé suivant une double approche, d'une part, la récolte et l'analyse des représentations des usagers et acteurs de ces paysages, y compris le sens des lieux (Jorgensen et Stedman, 2001) ; de leurs positions et motivations par rapport à leur reconnaissance patrimoniale, et d'autre part, une analyse des rôles, fonctions et usages de ces acteurs par rapport au paysage.

Les chercheurs ont ensuite établi un tableau des atouts et freins à une politique paysagère d'un point de vue du développement économique et social, et analysé les représentations du rôle de ces paysages patrimoniaux dans le développement local.

L'ambition de ces études est de contribuer à la construction d'une matrice de créativité en vue d'évaluer les possibilités de développement d'autres paysages que ceux analysés.

Parmi les questions qui guident l'analyse des cas, les chercheurs s'intéressent particulièrement aux suivantes :

- Qui sont les acteurs ? Habitent-ils le territoire concerné ?
- Parmi ceux-ci, qui sont les gagnants et les perdants des politiques de développement et de gestion mises en place ?
- Quel est le système de valeurs ? Comment fonctionne-t-il ? Pourquoi fonctionne-t-il ?
- Que souhaitait-on protéger ? Quel est le résultat final ?
- Qui entretient ? Quelles sont les activités permises ?
- Quelles sont les valorisations économiques et sociales engendrées par la patrimonialisation ?
- Comment fait-on face aux éventuels manques à gagner ?
- Quels sont les risques pour les paysages protégés et pour le développement des communautés locales ?

Les études de cas reposeront sur l'analyse de la littérature grise, des entrevues avec experts et de stakeholders et un travail réflexif en chambre.

#### 4. *Résultats et discussions*

Si l'on protégeait, en Wallonie, certains points de vue ou sites relativement restreints, durant la dernière décennie, marquée par l'adoption de la Convention européenne du paysage, sont apparus de nouveaux éléments à protéger beaucoup plus vastes et qui ne se limitent pas à une vue. Dans les deux cas analysés, ce sont plusieurs centaines d'hectares qui sont visés, soit une échelle intermédiaire entre le site classé (quelques hectares) et le parc naturel (10.000 ha minimum). Si les deux sites sont d'une grande qualité visuelle, leurs reconnaissances comme grand site paysager de facto ou potentiel reposent d'abord sur leur grande lisibilité. Dans les deux cas, la reconnaissance vient en supplément d'une série de statuts de protection déjà existants. Pour la boucle de l'Ourthe, l'inscription comme Grand site paysager permet de transcender les classements archéologiques, historiques, esthétiques et scientifiques antérieurs.

Dans les deux cas, les évolutions de la prise en compte du caractère patrimonial sont relativement semblables, avec, d'abord, une reconnaissance par les artistes, locaux et étrangers, appuyée ensuite par des études scientifiques, avant que le paysage soit valorisé pour le tourisme et puis reconnu enfin par les autorités publiques. Ce sont donc des personnes portant un regard neuf sur ces paysages qui ont initié la patrimonialisation et la prise de conscience de ceux-ci par une majorité des habitants et les gestionnaires. Les scientifiques interviennent pour informer sur le système paysager et comme garants de son intérêt général, mais c'est la possibilité de développement touristique qui booste les autorités à demander tant le label qui permet une valorisation touristique que le statut de protection. Comme déjà débattu dans la littérature, les deux finalités ne sont cependant pas toujours conciliables.

Les acteurs en présence sont ces artistes, les experts scientifiques (archéologues, biologistes, géographes, géologues, architectes...), les autorités communales et régionales, mais aussi les agriculteurs et les agents des eaux et forêts, les responsables des voies navigables et des voiries, les quelques habitants du site et les habitants des villages voisins, les touristes, les organisations de protection de la nature, de sauvegarde du patrimoine, de développement touristique et de diverses activités sportives.

Pour les habitants et acteurs locaux, la patrimonialisation du paysage est d'abord vécue comme une reconnaissance qui permet de renforcer le sentiment d'identité locale, en particulier dans ces régions proches de villes ; elle engendre une réappropriation de l'environnement par les habitants. Elle peut ensuite générer un flux touristique que certaines personnes pourront tenter de valoriser en développant une activité commerciale qui permet de redonner une vie à ces villages souvent reclus dans un rôle de village-dortoir.

Les conflits d'usage liés à la patrimonialisation et les restrictions sont relativement faibles dans les deux cas étudiés. Il y a cependant une distinction à faire entre les propriétés communales qui englobent notamment une bonne partie des forêts et les propriétés privées. Ces propriétaires relativement peu nombreux dans les deux cas s'accrochent de cette patrimonialisation car les réglementations urbanistiques en vue de protéger les sites existaient avant les projets de grands sites paysagers. Il y a peu de nouveaux interdits.

Cependant la médiatisation du site via le nouveau label conduit à une augmentation de la fréquentation par des populations qui ne sont pas toujours respectueuses de l'environnement. Le bétail peut par exemple souffrir de cette fréquentation et des déchets laissés dans les prairies par les promeneurs. Ces nuisances accrues peuvent être d'autant plus problématiques que les agriculteurs ou forestiers ne bénéficient pas du développement de ces activités récréatives, il s'agit juste de contraintes supplémentaires.

Les valeurs associées à ces paysages par les usagers sont d'abord leurs cadres qualifiés de naturel et la relative quiétude. Il est peu question de biodiversité, d'héritage historique et de l'arsenal des motivations qui ont conduit à leurs reconnaissances officielles. Quant à la quiétude, elle diminue, surtout pour les habitants, qui voient défiler les groupes d'excursionnistes.

Le maintien et la restauration des paysages sont par contre plus problématiques, car ils génèrent des coûts et des restrictions importants. Dans la culture wallonne, c'est au pouvoir public de prendre la plus grande part des coûts, ce qui peut nuire à la dynamique locale d'appropriation du paysage. Les propriétaires et agriculteurs locaux sont aidés par des mesures agroenvironnementales pour les accompagner dans leur maintien des activités afin de produire le paysage recherché. Cependant, faute de circuits de valorisation spécialisés, ils ne valorisent pas leurs produits en rapport avec cette reconnaissance patrimoniale.

## 5. Conclusion

La recherche en cours a déjà permis de pointer : que les projets de grands sites paysagers wallons répondent à un souci de bénéficier d'un outil à une échelle intermédiaire, que les retombées touristiques sont d'un point de vue économique intéressantes mais que ce développement nécessiterait un accompagnement, peu présent aujourd'hui, afin de limiter les nuisances ; que les agriculteurs, pourtant principaux occupants de l'espace et responsables du maintien du paysage, restent en retrait dans les décisions et ne saisissent pas les opportunités de diversification touristique, que d'autres ont saisies, que ce soient les autorités communales ou des entrepreneurs situés dans les villages voisins.

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## 25. Paradojas patrimoniales y ambientales en una Reserva de la Biosfera de Unesco: el paisaje cultural de Punta Nati (Menorca)

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### *Paradoxes of Heritage and the Environment in a UNESCO Biosphere Reserve: The Cultural Landscape of Punta Nati (Minorca)*

This paper relates to the lack of agreement regarding changes in land use in protected natural spaces brought about by contradictory actions with environmental, heritage and landscape effects. It focusses on the controversy sparked by three renewable energy projects in Punta Nati, an area of almost 3,000 ha (approx. 7,400 ac.) at the north-eastern point of the Island of Menorca. This entire island forms part of UNESCO's World Network of Biosphere Reserves and has been nominated to become a World Heritage Site as a cultural landscape of the ancient Talaiotic culture. This controversy is another instance of the dichotomy that exists in heritage (natural vs. cultural). Although this split has been resolved in the conceptual sphere and in international conventions, it nevertheless still continues to exist in public management and social perceptions. This paper also seeks to delve further into the debate around territory as a heritage asset by way of the landscape. The example of Punta Nati is significant and illustrative of the contradictions that derive from the assimilation of the environment, heritage and landscape, and confusion between generic and specific resources; it also highlights the landscape's potential for settling complex territorial heritage issues.

### *1. Introducción*

Esta comunicación versa sobre los desacuerdos generados por cambios de usos del suelo en espacios naturales protegidos derivados de actuaciones contradictorias en sus efectos ambientales, patrimoniales y paisajísticos. Se centra en la polémica suscitada por tres proyectos de energías renovables previstos en Punta Nati, un ámbito cercano a las 3.000 ha en el extremo noroccidental de la isla de Menorca (Figura 1), municipio de Ciutadella, con un impacto paisajístico considerable y que comprometen, entre otros, valores patrimoniales relacionados con los vestigios de la cultura talayótica (2100 a.C.). Desde 1993 la totalidad de la isla de Menorca integra la Red de Reservas de la Biosfera del programa MaB de la Unesco; a su vez, Menorca Talayótica es una candidatura a la Lista de Patrimonio Mundial de la misma organización, reconducida en los últimos meses hacia la tipología de paisaje cultural. La polémica reproduce la dicotomía existente en el patrimonio (natural frente a cultural), superada en la esfera conceptual y en los convenios internacionales, pero todavía vigente en la gestión pública y en las percepciones sociales. Subsidiariamente también se persigue adentrarse en el debate sobre el territorio como bien patrimonial a través del paisaje e identificar los actores protagonistas de la polémica y sus actitudes ante los cambios.

Figura 1. Localización de Punta Nati. Fuente: Societat Arqueològica Martí i Bella (con permiso).



## 2. Marco epistemológico

Este trabajo maneja tres nociones polisémicas, complejas y entrelazadas que a menudo se identifican y se confunden: medio ambiente, patrimonio y paisaje. Las tres difieren según el tipo de bienes prioritariamente atendidos: genéricos (ubicuos) o específicos (anclados en territorios concretos; Méndez, 2002). Los naturales ligados a la calidad ambiental (el agua, el aire, el viento, etcétera, y su utilización a través de energías limpias) se inscriben entre los primeros. Su preservación no entiende de fronteras y la responsabilidad de su gestión no debería hacerse recaer en unidades territoriales concretas, por más que estas desempeñen un papel clave en la gestión sostenible de esos recursos. Los bienes patrimoniales (naturales, culturales y paisajísticos) son, en cambio, recursos específicos y precisan de una gestión territorializada.

El marco epistemológico que se propone es el del patrimonio y su evolución reciente en tres direcciones confluyentes en la consideración del paisaje como bien patrimonial; a saber:

- El entendimiento del patrimonio como construcción social y asignación de valores (Prats, 1997, 2005; Silva Pérez y Fernández Salinas, 2017), que implica que todo patrimonio está mediatizado por la cultura y es patrimonio cultural independientemente del tipo de bienes (naturales o culturales) sobre los que recaiga ese valor.
- La asimilación, mezcla y fusión (también confusión) entre patrimonio natural y cultural derivada de lo anterior y asumida por los convenios internacionales (Convención para la Protección del Patrimonio Mundial Cultural y Natural de 1972 y Programa MaB y su Red de Reservas de la Biosfera de 1974, ambas bajo los auspicios de la Unesco); pero no así por las normas estatales (y autonómicas en el caso español) responsables directas de la gestión de los territorios, que persisten en la separación entre naturaleza y cultura.

- La plasmación de esa asimilación en figuras relacionadas con la consideración del territorio como bien patrimonial a través del paisaje. Sus múltiples denominaciones (paisajes protegidos, paisajes culturales, paisajes sobresalientes, etcétera) expresan la complejidad conceptual y el difícil entendimiento jurídico y social de los paisajes (Folch y Bru, 2017; Hernández Hernández, 2009; Iranzo, 2009; Mata, 2010; Gómez Mendoza, 2013; Nogué, 2016).

Los paisajes son entes territoriales complejos: sincretizan en espacios concretos condiciones ambientales muy precisas y vestigios de distintas épocas. Entendidos en términos patrimoniales son también entes completos: junto a elementos sobresalientes contienen otros de carácter banal y que pueden incluso estar degradados (Convenio Europeo del Paisaje, 2000). En esa doble condición de totalizadores espaciales y temporales radica buena parte de la riqueza conceptual del paisaje y, también, la dificultad de su aprehensión.

### 3. Metodología y fuentes

El orden metodológico se centra en la definición del problema y su contextualización en tres apartados: marco territorial y valores patrimoniales y paisajísticos de Punta Nati (4.1); marco institucional-normativo (4.2); e identificación y valoración de los proyectos de energías renovables (4.3). El punto 5 contiene la discusión de resultados y algunas conclusiones generales y específicas de Punta Nati. Con este orden se recurre a la estrategia metodológica de contrastar aspectos objetivables a partir de textos conceptuales y normativos con otros de carácter subjetivo más sometidos a la consideración social: opiniones vertidas en entrevistas y encuentros de carácter científico y ciudadano. Con ello se determinarán las principales paradojas entre la implantación de textos de contenidos y aspiraciones afines, naturales y culturales, y la asimilación asimétrica y sometida a subjetividades por parte de los principales agentes implicados.

Se ha recurrido a las siguientes fuentes:

- Referencias bibliográficas relacionadas al final del trabajo
- Referencias documentales: *Programa sobre el Hombre y la Biosfera*, MaB, de Unesco, 1972; *Plan Territorial Insular de Menorca*, 2002; *Sol·licitud de Declaració del Bé d'Interès Cultural amb Categoria de Bé Etnològic de la Zona Nord-Oest de Menorca* de la Societat Arqueològica Martí i Bella, 2012; *Norma Territorial Transitòria*, 2014; *Informe de Icomos sobre la Protecció del Paraje de Punta Nati (Menorca)*, 2016; y *Respuesta al Informe de ICOMOS del Consell Insular de Menorca*, 2016.
- Entrevistas a los principales agentes institucionales y sociales concernidos: responsables de distintos departamentos del Consell Insular de Menorca (Servicio de Ordenación del Territorio y Turismo; Departamentos de Medio Ambiente y Reserva de la Biosfera y Departamento de Cultura y Educación); asociación ecologista GOB Menorca y Societat Arqueològica Martí i Bella. Las entrevistas datan de enero de 2017.
- Mesas de debate participadas por los agentes antes reseñados, por expertos y por representantes de la sociedad civil (realizadas en el marco de las I Jornadas de Trabajo del Grupo de Paisaje de la AGE celebradas en Maó el 15 y 16 de junio de 2017).
- Trabajo de reconocimiento territorial en el paraje de Punta Nati (realizado en enero y junio de 2017).

#### 4. Definición del problema

##### 4.1. Punta Nati, un paisaje singular en la Reserva de la Biosfera de Menorca

Morfológicamente el paisaje de Punta Nati es un amplio valle en artesa cuya llana zona central bascula hacia un acantilado sobre el mar. Cromáticamente destaca por la alternancia de colores terrosos y blanquecinos en el contexto de una isla verde, con la que comparte una estructura caracterizada por una pluralidad de teselas micro-parcelarias, precisamente uno de los valores explicitados en el documento de declaración de Menorca como Reserva de la Biosfera de la Unesco. Toda la isla se encuentra tipificada desde 1993 en esa declaración: 70.200 ha (incluyendo un área marítima), de las que el 4% forman la zona núcleo, el 39% la zona tampón y el 57% zona de transición.

La singularidad paisajística de Punta Nati deviene de la combinación de: unos condicionantes naturales específicos y limitadores; una dilatada y rica trayectoria histórica; y el carácter contradictorio de sus percepciones y valoraciones sociales. La pobreza edáfica junto a la incidencia del viento de la Tramuntana hacen de la agricultura una actividad poco rentable y explican el uso ganadero ancestral. La construcción histórica se remonta al calcolítico (2100 a. C.); sus vestigios —la cultura talayótica, también presente en Punta Nati— son el argumento de la candidatura de la isla a la Lista de Patrimonio Mundial de la Unesco en la figura de paisaje cultural, como se ha dicho, aunque los vestigios de esta zona no fueron incluidos en la candidatura. Las trazas fisonómicas más visibles se concretan en la Edad Media (siglo XIV), en forma de paisaje ganadero troquelado por muros de piedra seca (Figura 2) y salpicado de edificaciones circulares (*barraques*, Figura 3) o cuadrangulares (*pons*) de rasgos constructivos emparentados con los *talaiots*. Durante el siglo XVIII se acrecientan los usos ganaderos —y con ello la pobreza edáfica—, al tiempo que la ocupación británica conlleva la decadencia de estos predios señoriales y eclesiásticos. Se inicia así un declive continuado que enlaza con la crisis de la agricultura tradicional (años setenta del siglo pasado) y su corolario de abandonos y deterioros. Su culmen es la minusvaloración patrimonial de este paisaje y la aparición de nuevos usos suburbanos y energéticos.

##### 4.2. Marco institucional y normativo. Punta Nati, un paisaje desprovisto de una de una protección territorial específica

Los paisajes de Punta Nati contienen parajes de gran valor, pero la mayor parte de su territorio está desprovisto de una protección territorial específica que lo blinde frente a cambios de uso de uso (Tabla 1).

Tabla 1. Normas con incidencia en el paraje de Punta Nati y afecciones territoriales del Plan Territorial Insular. Fuente: elaboración propia a partir de las leyes y plan citados en la tabla.

Normas	Elementos/espacios catalogados	Afección territorial
Ley 12/1998 de Patrimonio Histórico de las Islas Baleares	Ochenta bienes de interés cultural de carácter arqueológico	Muy puntual
Ley 1/1991 de Espacios Naturales y Régimen Urbanístico de las Islas Baleares	Área natural de especial interés	Franja litoral
Plan Territorial Insular (2003) y Norma Territorial Transitoria (2014)	Suelo rústico protegido de especial interés	
	Área de interés paisajístico	Resto del suelo rústico

*Figura 2. Muros de piedra. Fuente: fotografía de los autores (20/11/2017).*



*Figura 3. Barraques. Fuente: fotografía de los autores (20/11/2017).*



El reconocimiento de ochenta bienes de interés cultural arqueológicos por la Ley 12/1998 de Patrimonio Histórico de las Islas Baleares (parcialmente modificada por la Ley 1/2005) solo implica, no obstante, una afección territorial puntual y no defiende al paraje frente a proyectos de cambio de uso. La Ley 1/1991 de Espacios Naturales y Régimen Urbanístico de las Islas Baleares reconoce como *área natural de especial interés* a la franja litoral, en consonancia con su doble condición de *lugar de interés comunitario* (LIC) y *zona de especial protección de aves* (ZEPA) y su consiguiente integración en la Red Natura 2000. Ello le confiere una especial protección. El resto del paisaje de Punta Nati,

incluido el de uso ganadero, no tiene consideración alguna por la normativa reguladora del patrimonio natural. El Plan Territorial Insular (aprobado en 2003, renovado en 2006, sustituido por la Norma Territorial Transitoria en 2014 y actualmente en proceso de revisión) reconoce el valor patrimonial de estos paisajes a través de dos figuras: a) *suelo rústico protegido de especial interés o de interés territorial* coincidente con el *área natural de especial interés* de la Ley de 1/1991 y circunscrito al área litoral, se trata además de un área considerada como *zona de amortiguamiento* en la declaración de Menorca como Reserva de la Biosfera; y b) *área de interés paisajístico*, coincidente con buena parte del suelo rústico de uso ganadero, todo ello dentro de la llamada *zona de transición* en la misma declaración de Unesco. El Plan Territorial Insular de 2003 también asigna un valor paisajístico al espacio ganadero, reconocido como *suelo rústico protegido como área de interés paisajístico*. Desde la aprobación de la Norma Territorial Transitoria (2014) esta última tipología admite cambios de uso relacionados con nuevas instalaciones turísticas y energéticas.

#### 4.3. Proyectos de energías renovables y afecciones patrimoniales y paisajísticas

En 2008 varias empresas locales iniciaron la tramitación de una serie de proyectos de energías renovables en Punta Nati con una capacidad de 85,25 MW. Dos de ellos eran proyectos de energía eólica y el tercero (Son Salomó) preveía la ampliación de una planta de energía fotovoltaica existente con 14 ha a 173 pasando de 3,2 MW a 49,8 más con 250.000 placas solares (Figura 4).

Las afecciones paisajísticas y patrimoniales varían en según los casos:

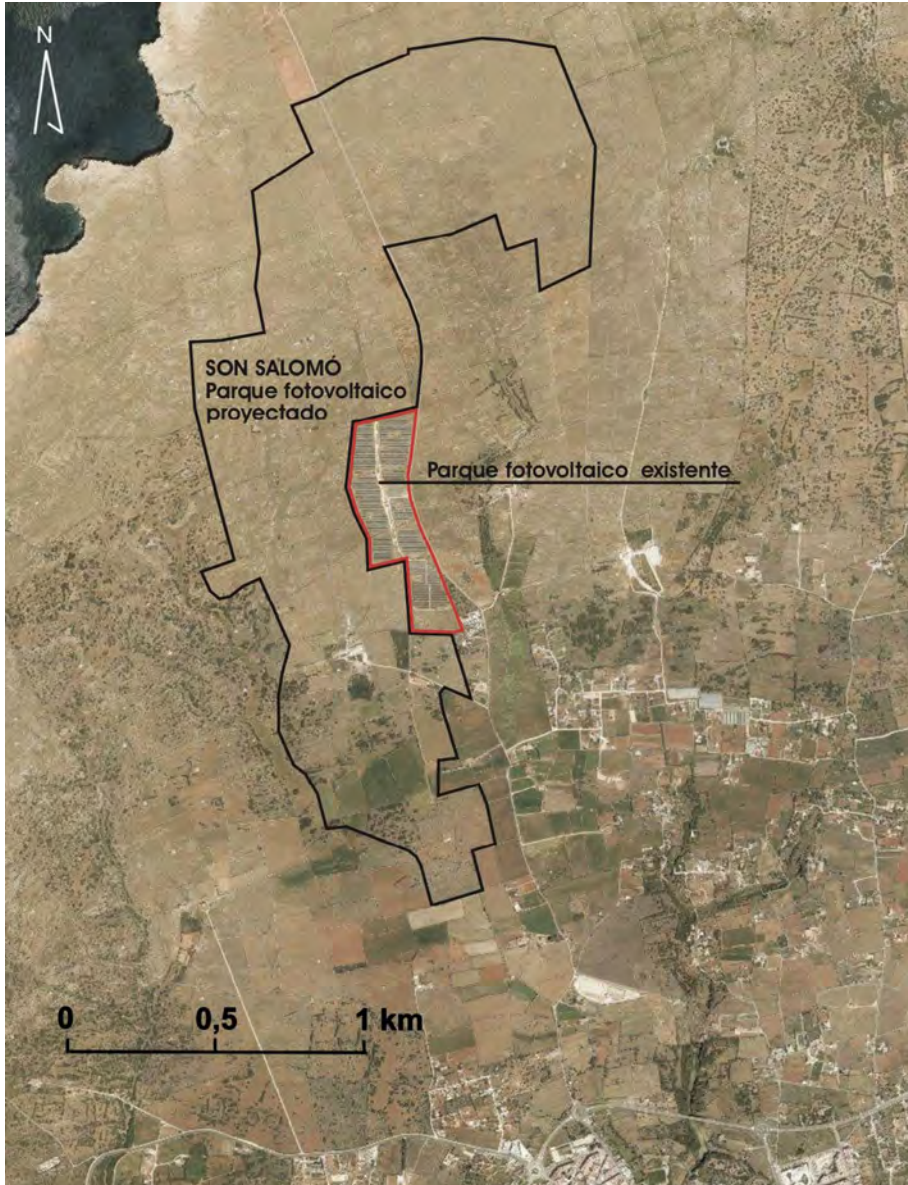
- Los proyectos de energía eólica tendrían un impacto espacial puntual y localizado, aunque dada la verticalidad de los aerogeneradores la afección visual sería muy potente. La principal crítica que tuvieron tuvo que ver, no obstante, con las interferencias con el hábitat de dos especies avícolas protegidas: el milano real y el alimoche. Ello fue determinante en el informe ambiental desfavorable por parte de la Comisión de Medio Ambiente de las Islas Baleares (BOIB 67, de 28 de mayo de 2016), que implicó su paralización.
- En la planta fotovoltaica de Son Salomó la afección es horizontal y tiene un doble calado: a) paisajístico, a su vez relacionado con dos factores: su amplia extensión y el enmascaramiento del parcelario por la superposición de una gran mancha de paneles solares; y b) patrimonial por la presencia de vestigios arqueológicos y la riqueza de la cultura ganadera. Es precisamente sobre este proyecto de energía fotovoltaica sobre el que gravita la polémica ya que, de desarrollarse, Son Salomó se convertiría en una de las mayores instalaciones españolas de este tipo cuando, en términos comparativos, la extensión de la isla de Menorca es de 696,7 km<sup>2</sup> (el 0,1% de la superficie española) y el paraje de Punta Nati solo ocupa 29,5 km<sup>2</sup>.

#### 4.4. Agentes implicados. Percepciones y soluciones previstas

Entre los agentes más activos en el debate cabe señalar:

- La Societat Arqueològica Martí i Bella. Reconocedora del impacto paisajístico de la propuesta y del valor patrimonial de Punta Nati, propone la segmentación de la planta fotovoltaica de Son Salomó y su reubicación en otras partes de la isla. Destaca, entre sus iniciativas, la propuesta, sin éxito, de declarar el paisaje ganadero de Punta Nati como bien interés cultural en la categoría de lugar de interés

*Figura 4. Parques fotovoltaicos en Son Salomó. Fuente: Societat Arqueològica Martí i Bella (con permiso).*



etnológico (la Ley de Patrimonio Histórico de las Islas Baleares no contempla la figura de paisaje cultural). En diciembre de 2015 interpuso una reclamación a la Secretaría del Comité Nacional Español de Icomos, de la que deriva un informe favorable a sus intereses de febrero de 2016.



- El Grup Balear d'Ornitologia i Defensa de la Naturalesa (GOB). Junto con las empresas licitadoras, es el principal valedor del proyecto fotovoltaico de Son Salomó. Posee una gran influencia institucional y social en Menorca. No se muestra insensible a los valores patrimoniales y paisajísticos de Punta Nati, pero antepone los beneficios ambientales derivados de la ampliación de la planta fotovoltaica a los recursos patrimoniales y paisajísticos, sobre todo por el compromiso de la isla como Reserva de la Biosfera.
- El Consell Insular de Menorca es el tercer protagonista en el litigio y actúa en cierta medida como mediador. Sin renunciar a la planta fotovoltaica, ha centrado los esfuerzos en varias direcciones: a) la reducción de la extensión (de 173 ha a 135); b) la eliminación de los molinos aerogeneradores; c) la incorporación de medidas para mitigar el impacto paisajístico; d) la garantía de conservación y rehabilitación de los bienes de interés cultural ubicados en el área afectada; y e) la garantía de reversibilidad de la instalación que permita la restitución de estos paisajes.

##### 5. *Discusión de resultados y primeras conclusiones*

El paisaje de Punta Nati es contradictorio en sus significantes y significados. Amplias panorámicas y espectaculares otros marítimos lo revalorizan como paisaje, a la par que acrecientan su vulnerabilidad visual. La historia (talayótica y ganadera) lo dota de un patrimonio cultural único, aunque no siempre reconocido. Su carácter árido, de escasa vegetación y esquilado por el sobrepastoreo, lo aparta de los comunes cánones del patrimonio ambiental, que asimilan lo natural con lo verde, con lo arbóreo. La titularidad privada de la red caminera que lo recorre hace de este un paisaje en cierta medida oculto. Las contradicciones en los significantes paisajísticos de Punta Nati se hacen patentes en las percepciones institucionales y sociales y en los desacuerdos sobre las afecciones de los proyectos de energías renovables.

La cuestión energética es medular en el debate ambiental del planeta. En el contexto de una isla donde la preocupación por la autosuficiencia energética resulta particularmente acuciante y con una sensibilidad ambiental muy potente tras un cuarto de siglo como Reserva de la Biosfera, la apuesta por las energías limpias protagoniza la agenda pública y el debate ciudadano. En este contexto se enmarcan varios proyectos de energías renovables en Punta Nati y la polémica surgida en torno a la ampliación de la planta fotovoltaica de Son Salomó.

Tras la polémica gravita la inoperancia del marco institucional vigente para la preservación de bienes patrimoniales territoriales como los paisajes. La integración de Punta Nati en la Reserva de la Biosfera de Menorca le supone, como al resto de la isla, un reconocimiento internacional del más alto rango; pero no la dota de una gestión territorial específica que conjure los riesgos en la conservación de sus valores patrimoniales y paisajísticos. La candidatura Menorca Talayótica a la Lista de Patrimonio Mundial, en proceso de revisión como paisaje cultural, presumiblemente deje fuera este *ámbito* en el que también existen vestigios de la cultura talayótica.

Por su extensión e imprecisión en su delimitación territorial, el paisaje se entiende mejor desde la ordenación del territorio; pero la planificación territorial reproduce los preceptos de las normas patrimoniales (que son de carácter vinculante). Se entra así en

una suerte de círculo vicioso en la gestión territorial y patrimonial del paisaje del que Punta Nati y la polémica suscitada en torno a la ampliación de Son Salomó son un buen ejemplo.

Los actores implicados en la polémica reproducen en sus planteamientos la dicotomía tradicional del mundo del patrimonio. La administración regional mediadora en el conflicto a través de la política de ordenación del territorio ha logrado la reducción superficial de la propuesta y eliminar los elementos más impactantes: los aerogeneradores, pero no así las contradicciones de fondo. La extensión, 135 ha, sigue siendo una superficie considerable en el paraje de Punta Nati; la mitigación del impacto paisajístico acrecentando la altura de los muros de piedra seca oculta los paneles solares, pero también los paisajes; la rehabilitación de los bienes de interés cultural ubicados dentro del área no evita la pérdida de autenticidad e integridad del paraje; y la garantía de reversibilidad de la instalación al cabo de treinta años tampoco está asegurada.

El ejemplo de Punta Nati es significativo y expresivo de las contradicciones derivadas de la asimilación medio ambiente-patrimonio-paisaje y de la confusión entre recursos genéricos-específicos; también evidencia las potencialidades del paisaje para dirimir problemas patrimoniales y territoriales complejos.

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## **26. A Visual Analysis of the Quantification of Landscape Quality in Protected Natural Areas: A Case Study in Fuentes del Narcea Area (South West Asturias)**

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### *1. Introduction*

The vast scientific, pedagogical and cultural heritage debate generated around the notion of landscape (Cancer, 1994) notably led to its continental interpretation after the signing of the European Landscape Convention. It was defined as “an area as perceived by people, whose character is the result of the action and interaction of nature and human factors”. This broad definition provides the basis for the understanding of the landscape as a visual and spatial expression of the region, a meaning that deepens, among other aspects, the relationship between the components of the environment (Galiana and Vallés, 2007) that can be observed by any subject/observer and the spatial-temporal composition that these present in an area. In this way, if the landscape has an obvious externalisation of a visual nature, it seems consistent to also consider the observers themselves and the evocations or sensations of an aesthetic nature that these persons perceive.

Faced with the challenge of treating the landscape as another resource of the region, people taking on the role of perceivers from the various fields of knowledge of the landscape itself have reacted with the emergence of multiple techniques and procedures for the evaluation and aesthetic and/or environmental objectification of the perceived landscape, that is, the visual landscape (Fuente de Val, Atauri and Lucio, 2004). Since the relationship between the landscape and its visual quality is very powerful, and is established to the extent that a landscape is able to contribute to the quality of life of its inhabitants and attract both new socio-economic activities and wealth to the region through its aesthetic, cultural or natural values, the procedure of visual assessment has been developed in recent decades as one of the systems of analysis of the correspondence between the areas of the landscape and the effects of these on the most accepted observers. In this context, the visual quality of a landscape seeks to quantify, in a succinct way, the degree of excellence of the landscape, and its merit so that its essence and its current structure are preserved.

### *2. Theoretical Insights*

The nature and multiplicity of data and analysis required in the understanding of a particular landscape has traditionally (Zube, 1984) been approached from various analysis techniques, which has led to the research presented to the Multicriteria Assessment (MA): a set of techniques focussed on addressing the decision-making processes in the most varied fields of science. A number of alternatives are presented in light of the multiple criteria and objectives that influence the evaluation of landscape value, as well as the environmental aspects of greater spatial relevance and the human activities that affect the global vision in one way or another.

In the specific case of this research work, this fact is specified in the expert selection of the factors and criteria to be considered and the subsequent weighting and aggregation. The integration of all the alternatives and variables with geospatial attributes generated by the MA will be done within a GIS, considering that the coordinated employment of the MA and the GIS provides a framework capable of operating with different judgments on the identification of the elements — the factors and criteria of the landscape — and offers the possibility of structuring them in a hierarchical arrangement.

Therefore, the main objective of this essay is to develop a methodology to determine, with an evaluative method, the visual quality of the landscape of the Comarca de las Fuentes del Narcea, Degaña and Ibias through indirect observation of the region.

This procedure, in addition to describing the landscape characteristics from the weighted aggregation of its components, will evaluate it through predefined estimation criteria. In this work, and as a secondary objective of the research, we propose the development of a visual quality model of the landscape using Multicriteria Evaluation (ME) techniques, which, integrated into a Geographic Information System (GIS), is capable of generating a cartographic base of the area of Fuentes del Narcea. This cartography must contain the different layers of information that allow the global assessment of the visual quality of its landscape. The second part of this secondary objective allows the experience obtained in this research to be used as an exportable model, which, with adaptations in the parameters and descriptors of each of the landscapes that need to be evaluated, can serve as a pattern for valuing the landscape in itself.

The importance of assessing the landscape and its visual quality lies in the provision of appropriate forms for the establishment of certain use and activities in an area, as well as to ensure their conservation over time, especially when dealing with landscapes of great uniqueness. In this sense, the proposed methodology has evaluated the combined use of GIS and ME (Santos, 1997), which allows the investigators on the one hand to take advantage of the enormous potential of management, spatial analysis and modeling of data related to the landscape offered by GIS and, on the other hand, the implementation of efficient procedures aimed at the analysis of preferences and evaluations expressed by experts and other interested parties.

### *3. Methodological Considerations*

The methodology that has been implemented in this study goes through different stages: the first of study and selection of the factors that are part of the visual quality of the landscape, the second of weighting the factors by means of the Analytical Hierarchical Method (AHM) and the third and final stage of obtaining the visual quality map of the landscape of the three selected areas (Malczewski, 2004). The selection of the criteria was carried out under three complementary procedures (Antrop, 2005). First, a bibliographical review was carried out with the objective of, on the one hand, determining which aspects are the most valued and accepted by the scientific community in landscape studies and, on the other hand, which criteria had been used in previous similar experiences. Secondly, several debates were held within the Group of Research and Territorial Analysis (Gratet) of the Geography Department at the Rovira i Virgili University, from which a first extensive list of criteria was made. Thirdly, the initial proposal was validated from two

meetings with the staff of the Technical Office of the Natural Park of Fuentes del Narcea, Degaña and Ibias. In order to organise the multiple factors that are present in the model, three main groups of criteria (Orán, Gómez and Bosque, 2010): have been defined:

- Intrinsic quality.
- Anthropic elements of positive political incidence.
- Anthropic elements of negative political incidence.

Regarding the standardisation of the criteria and their assessment, each one of the considered elements has been treated independently. The weighting of the criteria, defined as the weight or importance attributed to each of the factors used to calculate the visual quality of the landscape within the model designed for it, has been carried out using the Analytic Hierarchy Process (AHP) or Hierarchical Analytical Method. This method establishes the relative importance of the elements of each hierarchy from the matrix of comparison by pairs of Saaty (1980). This matrix is composed of as many columns and rows as the criteria make up the model, always introduced in the same order, which allows for a comparison of each factor with the rest. Each pair of variables is assigned a value on a scale from 1 (the first criterion is extremely important with respect to the second) to 9 (the first criterion is extremely important with respect to the second).

Once the factors have been standardised and the weights calculated, the integration of the layers is started by the application of a MA algorithm, more specifically with the exploitation of the so-called Linear Summation System. When weighting the final map of visual quality of the landscape, and therefore adding the layers of intrinsic, positive and negative values, the results were eight positive values that divided the visual quality of the Fuentes del Narcea landscape, based on a valuation scale that, according to the values and weights assigned to each of the factors already mentioned, assigned to each pixel of the visual quality map a positive assessment ranging from 3 to 10, with 10 being the maximum visual quality obtainable in a grid of the raster model and 3 the minimum.

#### 4. Results

Therefore, these eight categories, were reclassified and grouped (Pérez Albert et al., 2015) into four levels of visual quality, giving rise to the final map of the visual quality of the landscape of the Fuentes del Narcea area.

The maximum visual quality assessment, corresponding to 31% of the Visual Quality Map of the Landscape — approximately, 386 km<sup>2</sup> — includes the highest relief intensities and the steepest areas, as well as walls with steep slopes and greater amounts of natural vegetation among which forested areas of perennials and deciduous trees are mentioned as important. These zones are, in addition, coincident with the shaded areas in the more mountainous areas, which correspond to the zones with the least presence of anthropic elements owing to their marked character as natural redoubts and the accessibility problems they present.

The high visual quality assessment corresponds to 286 km<sup>2</sup> of the study area, that is, 23% of the Landscape Visual Quality Map. The main and most extensive forested areas, mainly concentrated in the Valleys of Degaña, of Hermo, by the Sierra de Caniellas and the Acebo and the Sierra de Muniellos, in the part closest to the center qualified as being of the highest visual quality.

*Table 1. Distribution of visual quality categories.*

Category of VC	Land area (ha)	Percentage
Low	23,636	19
Medium	33,588	27
High	28,612	23
Very high	38,564	31
Total	124,400	100

The third level, corresponding to the average visual quality, represents 27% of the study area, which is equivalent to 335 km<sup>2</sup> of the area de las Fuentes del Narcea. This group of visual quality has the highest concentrations of population and human activity, such as areas of cultivation and industrial activity or services of the region, exemplified by land around the towns of Cangas del Narcea or San Antolín de Ibias. Additionally, these areas have lower levels of natural vegetation, as for example in the central and southeast Ibias local government area.

The fourth level of quality, which represents the lowest visual quality levels of the landscape, occupies 19% of the study area corresponding to 236 km<sup>2</sup>, which are closely linked to the most impactful activities from the environmental and visual points of view. These activities include deep and open-pit mining operations and all the activities derived from it, as well as urban localities where the presence of negative landscape incidence values has been detected, such as landfills, sewage treatment plants or high-voltage power lines and communication repeaters or transport networks. These activities are concentrated in the south of the region, specifically in isolated areas of Degaña, in the areas of greater population density of Cangas del Narcea, and in the large mining centers of Ibias.

##### *5. Discussion and Conclusion*

From the point of view of the application of these techniques, it is shown once again that the studies of quality and visual fragility of the landscape are fundamental for effectively monitoring the area, especially in natural areas in which the policy of conservation of nature is a priority, and in those in which uses such as tourist-recreational activities or public access are compatible with the conservation of natural resources. Undoubtedly studies like this, linked to the perception of the landscape, provide information that can reduce human pressure on certain sites of great ecological value where public use is traditionally concentrated, and indicate alternative places with a high levels of attraction. In this sense, the visual quality of the landscape, together with other variables, are frequently used as a criterion to indicate areas that must be preserved against actions that involve a certain environmental impact.

At present it is true that the vast majority of techniques for assessing the visual quality of landscapes are criticised for their subjectivity, and for the limited and characteristic territorial or knowledge area to which they can be applied. This research was based on the premise that there is no correct landscape assessment technique that excludes others and that most of the works are based on subjective but systematic methods. Partiality with respect to the valuation of the landscape, becomes even more evident when variables of

aesthetic and cultural type, related to human perception, become part of the equation of visual quality. The development of the indirect evaluation methodology presented here has a clear bias linked to the relevance and degree of participation of the parameters that constitute its model. This bias is indisputably associated with the direction and choice of the components of the landscape studied and the quality approaches provided. Only greater and more accurate knowledge of the medium under study by the management team and a more comprehensive incorporation of landscape parameters and the relative importance given by means of the weights carried out, can provide an effective solution capable of, in one hand, offering a less biased alternative and, on the other, further adjustment to the demands and peculiarities of the complex space analysed.

The methodological proposal presented here aspires to be a guideline that can help to determine the value of the landscape of an area as concrete as the south-western mountain region in the Principality of Asturias. At all times the investigation has sought to elaborate a complete valuation method with well-established ranges and criteria, which is one more tool in the field of the perceptual assessment of the landscape from the point of view of geography.

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## 27. Land Use/Land Cover Change as the Trigger of Spatial Conflicts in Rural Areas. The Experience of Łódź Agglomeration (Poland)

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### 1. Introduction

The Łódź Agglomeration consists of five of the county-level units of Poland's administration known as *poviats*, which is to say that of Łódź itself (an urban *poviat* which forms the core of the settlement system with around 700,000 inhabitants), as well as four rural *poviats* with ca. 400,000 inhabitants. The surroundings of Łódź and other towns and cities of the agglomeration were previously very clearly and typically agricultural. Given such marked differences between the core with its industrial and intensively residential utilisation and external areas mainly serving as farmland, but also having a dispersed residential function, the Łódź agglomeration naturally and inevitably entered a phase of transformation following the collapse of Poland's centrally-planned economy, as well as under the influence of globalisation and Poland's accession to the European Union.

The result of the economic transformation post-1990 was a relatively rapid reorganisation of the space within the agglomeration, within which the most characteristic features were an abrupt loss of significance for the industrial function, with some industry also relocating from the core towards the periphery; as well as a development of the residential function in peripheral parts of the cities (especially Łódź itself) and in rural areas around it (via urban sprawl). The period at the very end of the 20<sup>th</sup> century and beginning of the 21<sup>st</sup> then brought the onset of a functional remodelling of agglomeration space. Development of metropolitan functions in the city has been associated with the development of technical infrastructure, especially motorway building (in a ring around the core of the agglomeration).

The consequence of different shifts in function from the quality point of view has been the appearance of many planning and spatial conflicts. These have above all involved public dissatisfaction with the proximity (or potential proximity) to new housing estates of land designated for developments of an industrial, logistics-related or infrastructural nature, or else associated with the intensive, industrial-scale raising and slaughtering of livestock.

### 2. Theoretical Insights

The essence of spatial or planning conflict is open articulation of opposition to planned management of space. To put things in the most general terms, conflict ensues when a more widespread awareness is gained regarding the conflicting values or interests

of at least two groups of stakeholders, albeit with one of these most typically comprising residents of an area adjacent to one in which new development activity is being pursued. The subject matter of planning conflicts was first taken up by geographers in the 1960s, *inter alia* in studies concerned with the localisation of new investment (i.e. Tietz 1968; Austin, 1974; Bigman and ReVelle, 1979; White, 1979), and later more explicitly in targeted studies (i.e. Kreps et al., 1973; Janelle, 1977; Lake, 2001; Popper, 1981, 1985; Meyer and Brown, 1989).

Given the multifunctional nature and intensity of changes, urban agglomerations are in some way predestined to develop spatial conflicts. Research carried out indicates that conflicts occur very frequently in and around large cities (cf. Dmochowska-Dudek, 2012). Work done across Poland in turn makes it clear that 40% of the conflicts arising in the country's rural areas actually took place within 30 km of the centres of the largest cities (Bednarek-Szczepańska and Dmochowska-Dudek, 2015). Conceptualised from the sociological point of view, the mechanism by which conflicts come to be concentrated in agglomerations and metropolises is conditioned by disproportions in the access different "actors", i.e. users of space, have to the valuable features that space makes available. Referring to the work of Castells (1982, 1997), it has been noted that:

[T]he ongoing process of metropolitanisation gives rise to urban conflicts. The immediate causes of these lie in macrosocial problems and in contradictions associated with the uneven redistribution of consumption taking place within local spatial configurations. In other words, these result from the evolution of capitalism leading in the direction of metropolisation, suburbanisation and socio-political fragmentation. (Starosta, 2000: 15).

In contrast, when it comes to the spatial configuration, the probability of conflicts arising increases in direct proportion to the number of functions present in a given area.

### 3. Methodological Considerations

Data concerning changes in land cover (CLC data) in the Łódź agglomeration were gathered, arranged and analysed. On this basis, the main directions and the scale of spatial and functional transformation of Łódź and its suburban area were indicated. Special attention was paid to the phenomenon of socio-spatial conflicts as the effect of strong investment pressure in rural surrounding of the city.

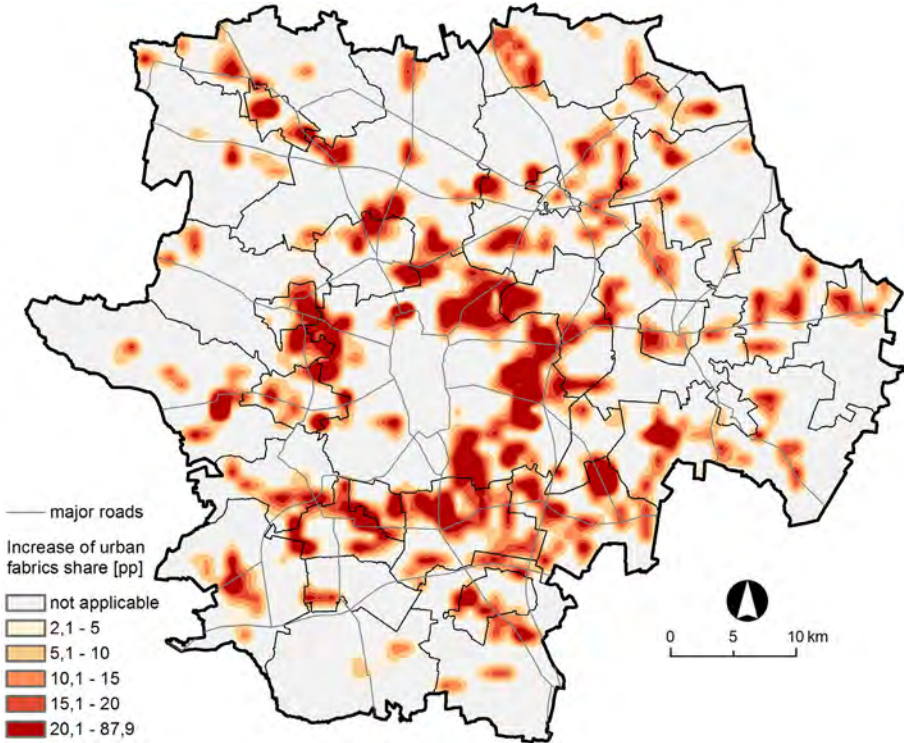
### 4. Results

The increase in the urban area results from an increase (of 20%) in the proportion of the above land within the city of Łódź and associated towns, but also from the infilling of space along the main transport routes in rural areas, between the main towns and cities in the agglomeration (Figure 1a). In the course of recent decades, the area of urban fabric of these two kinds has tripled in rural areas of the agglomeration — to cover more than 113 km<sup>2</sup> as opposed to 35.

The main areas in which urban fabric of the different categories is growing are those on the periphery of Łódź — a circumstance that is associated with the location of housing developments, be these multi-family or single-family, away from the city centre, as well as around the smaller towns bordering on to Łódź itself. A very important trend is the

Figure 1. Increase in the share of the Łódź urban agglomeration accounted for by: (a) urban fabric, (b) in industrial and commercial units share of the Łódź urban agglomeration and (c) the reduction in the area of the Łódź urban agglomeration accounted for by agricultural land, 1990-2012. Source: own elaboration based on CLC data.

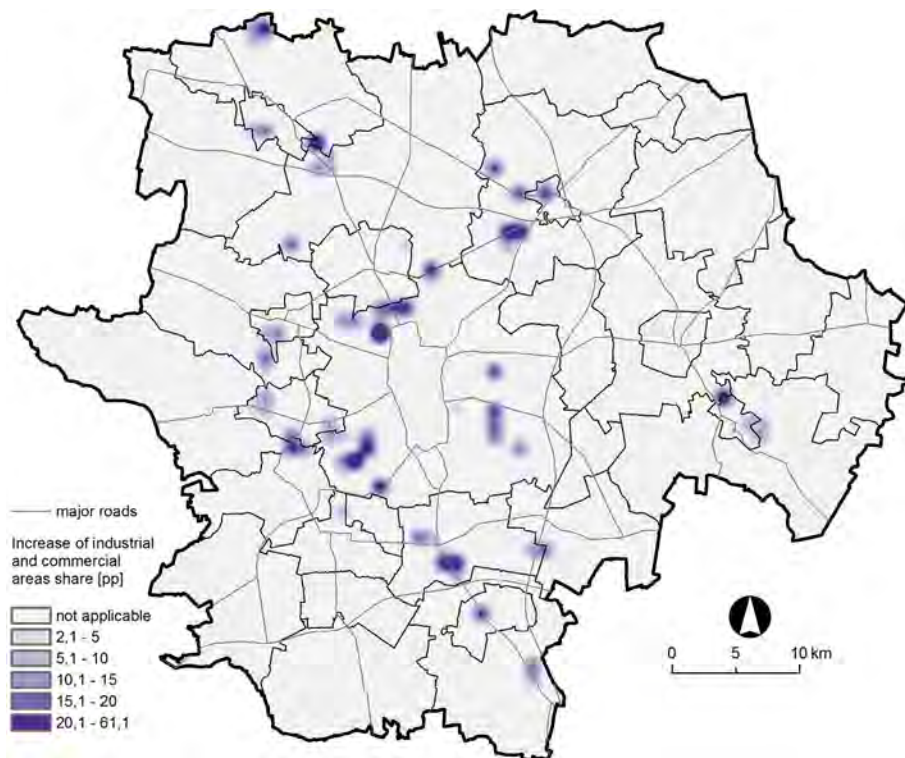
1a



expansion of this type of physical development into rural areas located in the immediate vicinity of the agglomeration's towns and cities. It is in the latter that single-family housing and larger residences have mainly been appearing.

The changes in land cover within the agglomeration accounted for by industrial and commercial areas have been much more limited in scale. Under the CLC classification, industrial and commercial units represent entire industrial or commercial complexes, including access roads, landscaped areas, car parks, etc. Industrial areas concentrate mainly in Łódź itself (in the zone between the centre as such and residential areas on the periphery of the city), as well as in the smaller towns of the agglomeration. Between 1990 and 2012, the area accounted for by industrial and commercial units increased by 16% (from 60.3 to 71.2 km<sup>2</sup>), albeit with the share of the city of Łódź and towns in the overall area taken by industrial and commercial units declining 5 percentage points in the period under study, to the benefit of rural areas. The main areas of growth in the share of area taken by industrial and commercial units are in rural parts of the *gminas* (local-authority areas) of Stryków, Ozorków, Zgierz and Rzgów (Figure 1b).

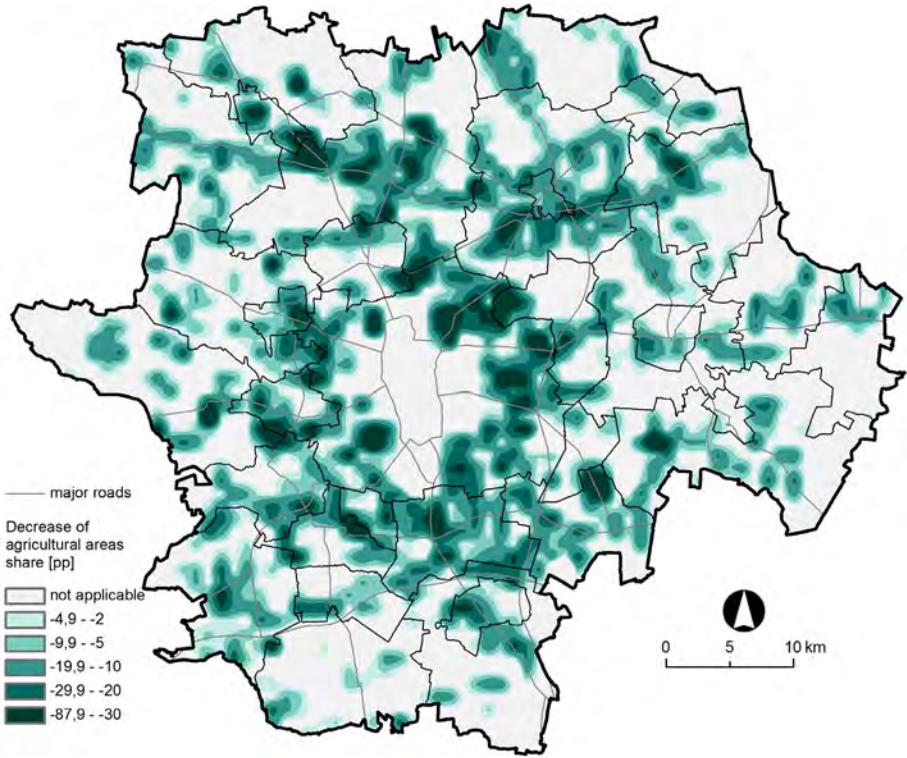
1b



The increase in the area of residential and industrial land in the Łódź agglomeration mainly took place at the expense of agricultural land, whose area decreased by more than 180 km<sup>2</sup> during the decade. Farmland within the urbanised space of the agglomeration represents a natural reserve available for developing housing or commercial functions, which is why the loss of agricultural land is very much a matter for the city of Łódź itself, as well as towns and peri-urban areas. The process via which land is losing its farmland status is also to be observed within rural gminas, with the land in question gradually being transformed through investment into the agglomeration's developing transport network, i.a. as motorways and expressways are built in the gminas of Zgierz, Stryków, Pabianice, Rzgów and Brójce (Figure 1c).

In the Łódź agglomeration, and hence in Łódź and the four poviats surrounding it, there are many new developments of a problematic nature, of which some have already been implemented, while others remain at the planning stage as yet. Thanks to a press search carried out for the decade 2007-2016, in respect of online versions of local papers, it proved possible to identify conflicts of differing scale and subject matter that nevertheless represent the kinds of conflict-generating developments capable of being thought of as typical for agglomerations. Overall, some 32 such conflicts were identified for the Łódź agglomeration overall, of which 14 were in its cities (11 of these in Łódź itself) and 18 in

1c

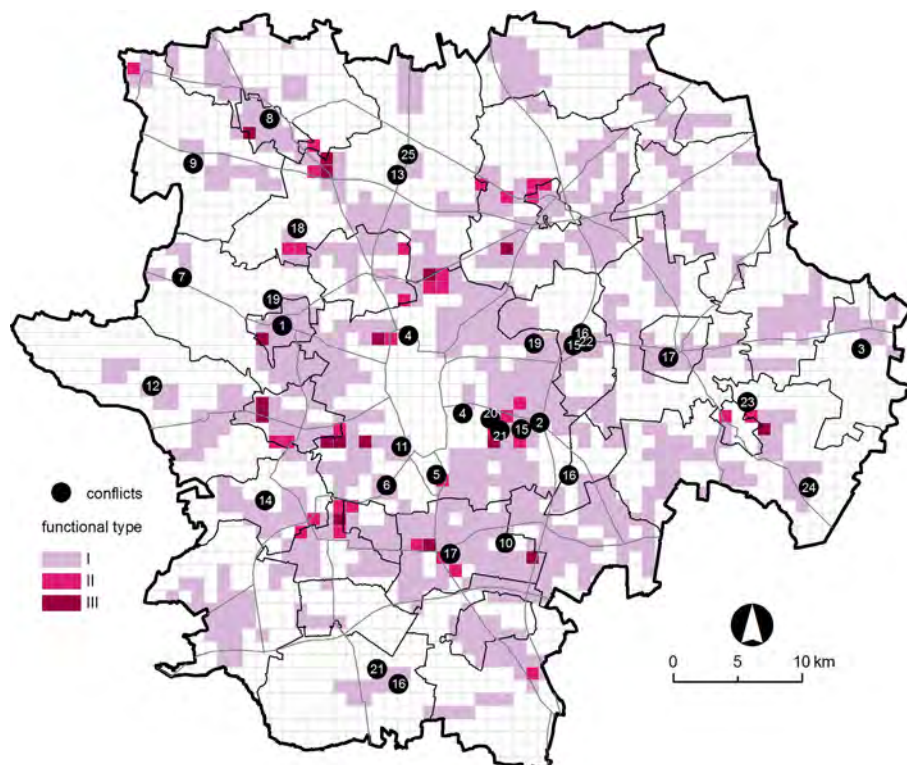


rural areas. Among the undertakings identified, there were infrastructural developments (in transport - motorway, expressway and ringroad or bypass construction, and high-speed railways; in communications — mobile phone network masts; in sanitation — a waste incinerator; and in power supply — a biogas plant and a wind farm); developments associated with commercial activity (shopping centres, hypermarkets, factories, mines and logistics warehouses); developments associated with agribusiness (intensive pig and poultry farms); and developments associated with social services, including a centre for foreigners, a prison and an animal shelter.

Analysis of the distribution of spatial conflicts in the Łódź agglomeration reveals that their presence is closely connected with areas subject to intensive functional transformation in recent years (Figure 2). By reference to changes affecting land cover in basic fields each covering 1 km<sup>2</sup> it proved possible to identify areas in which relevant changes had occurred, as divided into three different types in relation to their nature and size.

- Type I takes in areas in which the loss of agricultural land has been associated with an increase in the area of residential and industrial land.
- Type II takes in areas in which the loss of agricultural land has been associated with simultaneous increases of up to 5% in the shares of both residential and industrial land.

Figure 2. Spatial conflicts arising, as set against types of functional change ongoing in the Łódź agglomeration.



- Type III takes in areas of the most intensive functional transformation, with loss of agricultural land being accompanied by increases of more than 5% in the shares of both residential and industrial land.

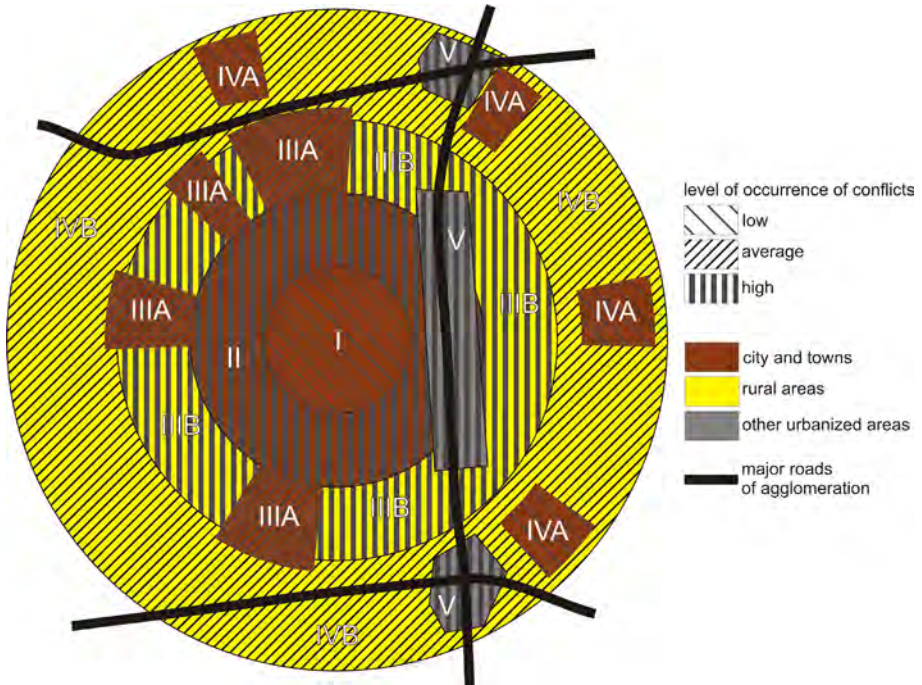
### 5. Discussion and Conclusion

On the basis of the relationship between the intensity of functional transformations in different parts of the urban agglomeration and the identified locations of spatial conflicts, it was further possible to devise a model that drew distinctions between five main zones, in terms of regularities where the relationships between analysed features were concerned (Figure 3).

I. The inner-urban zone of the agglomeration's main city. This is characterised by limited intensity of conflict, i.e. given the already-determined nature of the functional and spatial structure.

II. The peripheral zone of the agglomeration's main city. Here intensive change in functional structure is accompanied by a high frequency of occurrence of conflicts. The reserve of open land on the peripheries is now being designated for housing construction, with residential blocks and single-family housing both being erected. There are also new

Figure 3. Zones in the Łódź urban agglomeration vulnerable to the appearance of conflicts: a model approach.



municipal developments, including a waste incineration plant, as well as commercial ones, notably on land slated for development within the Special Economic Zone. The area of the city limits is also the location for various kinds of manufacturing and warehousing that require large amounts of land. Inhabitants here protest against the reduction in the area of open land that may hitherto have been used in recreation, as well as against neighbouring facilities considered to be burdensome. The peripheral zone does feature necessary services that are classic candidates for NIMBY status, such as an animal shelter.

IIIA. Smaller towns of the agglomeration adjacent to the main city. Changes in the spatial structure are relatively limited here, and mainly concerned with reinforcing functions already in existence. This denotes conflicts only arising at an average level of intensity, their main source being new developments in the vicinity of the said towns on the peripheries of the main city, as well as developments associated with changes in the road infrastructure serving the agglomeration.

IIIB. Rural areas around the agglomeration's main city. The fact that there is a rather high intensity of conflicts here can be associated with the dynamic nature of functional change. Much farmland is ceasing to have such a designation, being given over for single-family housing and other residential construction on the one hand (especially where the natural and landscape features are of higher value), or else new commercial developments on the other. Entrepreneurs are bringing their activity from the city into rural areas because of the low fees and taxes, with simultaneous good access to resources and

markets, such as highly-qualified employees from the city area, as well as people with more limited qualifications from rural areas leaving farming. Moreover, this is the zone in which new developments associated with farming are also pursued (e.g. large-scale pig and poultry farms), sometimes in close proximity to housing estates.

IVA. Towns in the agglomeration's peripheral zone. The low frequency of occurrence of conflicts results *inter alia* from a rather well-established functional structure. A possible risk of conflicts breaking out is associated with the configuration of the city as set against its surroundings, e.g. with activities burdensome to city-dwellers being located in surrounding rural areas.

IVB. Rural areas of the peripheral zone. These feature an average level of occurrence of conflicts, and functional changes of only a relatively limited nature. Conflicts are associated with the "export" of clearly burdensome new developments in areas peripheral to the settlement system regarded as less actively socially, and hence seemingly associated with a more limited risk that the location of a planned new development will engender local opposition. Thus the agglomeration's peripheral areas provide locations for manufacturing plants, a mine, wind farms, a recycling plant, and even services of a particularly controversial nature like a prison and a centre for incoming foreigners.

V. Areas along the agglomeration's main transport routes. The vicinity of motorways, expressways, national routes and junctions is characterised by a high frequency of occurrence of conflicts, as well as functional transformations that can be regarded as very far-reaching. The development of transport infrastructure in an agglomeration (motorways, expressways, bypasses and ring roads, cycle tracks and airports) in itself represents a source of conflict, because the delineation of corridors far from residential areas proves almost impossible. Areas adjacent to the main roads in the agglomeration or close to their junctions are attractive places in which to locate commercial activity (production plants and logistic warehouses), while the linear nature of transport developments increases the risk of conflicts arising as different functional zones are cut through.

Thanks to the work presented here the relationship between the nature and rate of observed changes and the development of space-related social conflicts, it has proved possible to draw several general conclusions regarding the contemporary nature and internal structure of the region in question, with these capable of being illustrated in model form.

Analysis of changes in land cover within the limits of the Łódź agglomeration, as carried out by reference to Corine Land Cover (CLC) data for the years 1990, 2000 and 2012, allows it to be claimed that changes are centrifugal in nature, concerning mainly the sprawl of urban-fabric land in the peripheral zone of Łódź city, and in rural areas along the main communication routes linking the core of the agglomeration with smaller cities, as well as the towns around them. This is all linked first and foremost with the exceptionally dynamic development of the housing function throughout the period of transformation. Analysis in regard to the relocation of industrial and commercial units shows that this process is less-intensive, though – as in the case of the urban-fabric areas – it is taking place at the expense of areas of agricultural land lost to the region "for good".

Moreover, the results of the research show that, wherever a more stable and fixed spatial structure of an area is present (which is true of both the agglomeration centre and



peripheral areas), social conflict over space is either lacking or of limited severity. In turn, in zones concentrating around the agglomeration's centre or its main transport routes (i.e. where pressure to (re)develop is particularly strong), changes in functional structure achieve their greatest intensity, and do lead to the emergence of conflict.

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**IV. BRIDGING GAPS BETWEEN RURAL  
IMAGERIES, AND THE “GRIM REALITY”**

**IV. COMBLER LE FOSSÉ ENTRE LES IMAGES  
RURALES ET LA « TRISTE RÉALITÉ »**

**IV. TENDER PUENTES ENTRE LOS IMAGINARIOS  
RURALES Y LA «CRUDA REALIDAD»**

**IV. COLMATAR LACUNAS ENTRE OS IMAGINÁRIOS  
RURAIS E A «CRUA REALIDADE»**

*Piccadilly Valley (Adelaide Hills, South Australia, Australia,  
Oceania). Source: Picture by Valerià Paül (22/9/2014).*





#### *IV. Bridging Gaps between Rural Imageries, and the “Grim Reality”*

As noted by Woods (2005: 11), consistent with Halfacree’s (1993) essay on defining the rural space, there is a growing consensus that “an area does not become ‘rural’ because of its economy or population density or other structural characteristics — but because the people who live there or use it think of it as being ‘rural’”. This statement speaks to the pivotal importance given to representations, imageries and perceptions for understanding how rural systems work, especially in a society highly influenced by mass media. For instance, it has been repeatedly shown that suburbanisation, peri-urbanisation and/or counter-urbanisation as relevant socio-demographic processes experienced in rural areas across the world and which are commonly based on different types of rural idylls. However, often the “grim reality” contradicts these rural idylls and newcomers feel dissatisfied and even enter in conflict with previous rural residents.

Thus, quite frequently the material and immaterial realities do not match, causing a gap that can compromise rural sustainability. There are several cases in point, such as studies developed in Latin America and Africa through the lens of “conservation refugees” perspective as coined by Dowie (2009) which are particularly illustrative. This research has repeatedly observed a pattern by which rural communities consisting of native peoples or poor farmers are expelled because of the triumph of particular biocentric and urban-based ideologies that are converted into mainstream planning and conservation practices. In this sense, the idea of rurality as untouched nature frames the countryside, even if the countryside in itself is not (or has never been) pristine (Zimmerer, 2000). This is evident in very distant countries such as Brazil (Irving, Corrêa and Zarattini, 2013) and Spain (Ojeda, González Faraco and López Ontiveros, 2006).

This thematic session welcomes contributions around these questions:

- What are the planning and political implications of the rural idyll?
- How do representations, imageries, imaginations and perceptions of the rural contradict the “grim reality”?
- How can intangible, immaterial and tangible, material sides of rural systems be reconciled? To what extent can the concept of landscape be useful in this reconciliation?
- How can we bridge the gap between urban and rural representations of the rural?
- How can we bridge the gap between the rural understood as farming (productive) space, on the one hand, and as a pristine, natural environment, on the other?

#### *IV. Comblent le fossé entre les images rurales et la « triste réalité »*

Comme noté par Woods (2005, p. 11), compatible avec l’essai d’Halfacree (1993) pour définir l’espace rural, il y a un consensus grandissant que « un espace ne devient pas ‘rural’ à cause de son économie ou de sa densité de population ou d’autres caractéristiques structurelles — mais parce que les personnes qui y vivent ou l’utilisent le pensent comme étant ‘rural’ ». Cette affirmation parle de l’importance cruciale donnée aux représentations, images et perceptions pour comprendre comment les systèmes ruraux fonctionnent, spécialement dans une société influencée par les médias de masse. Par exemple, il a été montré à plusieurs reprises que comme des processus socio-démographiques pertinents expérimentés dans les espaces ruraux autour du monde, la suburbanisation,

périurbanisation et/ou contre-urbanisation sont généralement basés sur différents types d'idylles rurales. Toutefois, souvent la « sombre réalité » contredit ces idylles rurales et les nouveaux arrivants se sentent insatisfaits et entrent souvent en conflit avec les résidents ruraux précédents.

Ainsi, il arrive souvent que les réalités matérielles et immatérielles ne correspondent pas, ce qui crée un fossé pouvant compromettre la durabilité rurale. Il existe plusieurs travaux particulièrement éclairant, prenant pour cadre l'Amérique latine et l'Afrique, et s'attachant à l'étude du regard porté par les « réfugiés de conservation », à l'exemple de ceux de Dowie (2009). Cette recherche a permis d'observer à maintes reprises une tendance selon laquelle les communautés rurales composées de peuples autochtones ou d'agriculteurs pauvres sont expulsées en raison du triomphe d'idéologies « biocentriques » et urbaines, converties en pratiques courantes d'aménagement et de conservation. En ce sens, l'idée de la ruralité en tant que nature intacte encadre la campagne, même si cette dernière, elle-même, n'est pas (ou n'a jamais été) vierge (Zimmerer, 2000). Ceci est évident dans des pays très distants comme le Brésil (Irving, Corrêa et Zarattini, 2013) et l'Espagne (Ojeda, González Faraco et López Ontiveros, 2006).

Cette session thématique est ouverte aux contributions portant sur ces questions suivantes :

- Quelles sont les implications politiques et d'aménagement de ces idéalizations rurales ?
- Comment les représentations, images, imaginations et perceptions du monde rural contredisent-elles la « triste réalité » ?
- Comment peut-on réconcilier, d'une part, les aspects intangibles et immatériels et, d'autre part, ceux de tangibles et matériels des systèmes ruraux ? Dans quelle mesure le concept de paysage peut-il être utile dans cette réconciliation ?
- Comment combler le fossé existant entre les représentations urbaines et rurales allouées à l'espace rural ?
- Comment combler le fossé entre l'espace rural perçu comme un espace agricole (productif), d'une part, et comme un environnement naturel « immaculé », d'autre part ?

#### *IV. Tender puentes entre los imaginarios rurales y la « cruda realidad »*

Como indicó Woods (2005: 11), de acuerdo con el ensayo de Halfacree (1993) sobre la definición del espacio rural, existe un creciente consenso de que « un área no se vuelve “rural” debido a su economía o densidad de población u otras características estructurales, sino porque las personas que viven allí o la usan piensan que es “rural” ». Esta afirmación apunta a la importancia fundamental concedida a las representaciones, imaginarios y percepciones para comprender cómo funcionan los sistemas rurales, especialmente en una sociedad altamente influenciada por los medios de comunicación. Por ejemplo, se ha demostrado repetidamente que la expansión urbana, la periurbanización y/o la contraurbanización son procesos sociodemográficos relevantes experimentados en los espacios rurales de todo el mundo y que se basan comúnmente en diferentes tipos de idilios rurales. Sin embargo, a menudo la « cruda realidad » contradice estos idilios rurales y las personas

recién llegadas se sienten insatisfechas e incluso entran en conflicto con las residentes rurales anteriores.

Así, con bastante frecuencia las realidades material e inmaterial no coinciden, lo que provoca una brecha que puede comprometer la sustentabilidad rural. Existen varios casos concretos particularmente ilustrativos, como los estudios desarrollados en América Latina y África a través de la perspectiva de los «refugiados de la conservación», así acuñada por Dowie (2009). Esta investigación ha observado repetidamente un patrón por el cual comunidades rurales compuestas por grupos indígenas o campesinos pobres son expulsadas debido al triunfo de ideologías de carácter biocéntrico y centradas en los espacios urbanos que consiguen convertirse en las prácticas habituales de ordenación territorial y conservación. En este sentido, la idea de ruralidad como naturaleza intacta enmarca lo rural, incluso si el campo en sí no es (o nunca ha sido) prístino (Zimmerer, 2000). Esto es evidente en países muy distantes como Brasil (Irving, Corrêa y Zarattini, 2013) y España (Ojeda, González Faraco y López Ontiveros, 2006).

Esta sesión temática acoge con especial interés contribuciones sobre las siguientes cuestiones:

- ¿Cuáles son las implicaciones políticas y en la ordenación del territorio del idilio rural?
- ¿Cómo pueden las representaciones, imaginarios, imaginaciones y percepciones de lo rural contradecir la «cruda realidad»?
- ¿Cómo pueden reconciliarse los aspectos intangibles e inmateriales, por un lado, y los tangibles y materiales, por el otro, de los sistemas rurales? ¿En qué medida puede el concepto de paisaje ser útil en esta reconciliación?
- ¿Cómo podemos tender puentes entre las representaciones urbanas y rurales de lo rural?
- ¿Cómo podemos salvar la fractura entre lo rural entendido como el espacio agrario (productivo), por un lado, y como un entorno natural prístino, por el otro?

#### *IV. Colmatar lacunas entre os imaginários rurais e a «crua realidade»*

Como indicou Woods (2005: 11), consistente com o ensaio de Halfacree (1993) sobre a definição do espaço rural, existe um crescente consenso de que «uma área não se torna “rural” devido à sua economia ou densidade de população ou outras características estruturais, mas sim porque as pessoas que vivem ali ou a utilizam pensam que é “rural”». Esta afirmação aponta para a importância fundamental concedida às representações, imaginários e percepções para compreender como funcionam os sistemas rurais, especialmente numa sociedade altamente influenciada pelos meios de comunicação social. Por exemplo, demonstrou-se frequentemente que a expansão urbana, a periurbanização e/ou a contraurbanização são processos sociodemográficos relevantes vividos nos espaços rurais de todo o Mundo e que se baseiam comumente em diferentes tipos de idílios rurais. Contudo, frequentemente a «crua realidade» contradiz estes idílios rurais e as pessoas recém-chegadas sentem-se insatisfeitas e inclusive entram em conflito com os residentes rurais já existentes.

Assim, é frequente que as realidades material e imaterial não coincidam, o que provoca uma fratura que pode comprometer a sustentabilidade rural. Existem vários casos

concretos particularmente ilustrativos, como os estudos desenvolvidos na América Latina e África através da perspectiva dos «refugiados da conservação», termo cunhado por Dowie (2009). Esta investigação observou repetidamente um padrão segundo o qual as comunidades rurais compostas por grupos indígenas ou camponeses pobres são expulsos devido ao triunfo de ideologias de caráter biocêntrico e centradas nos espaços urbanos, que conseguem converter-se nas práticas habituais de ordenamento do território e conservação. Neste sentido, a ideia de ruralidade como natureza intacta marca o rural, inclusive se o campo em si não é (nem nunca foi) prístino (Zimmerer, 2000). Isto é evidente em países tão distantes como o Brasil (Irving, Corrêa e Zarattini, 2013) e Espanha (Ojeda, González Faraco e López Ontiveros, 2006).

Esta sessão temática acolhe com especial interesse as contribuições sobre as seguintes questões:

- Que implicações políticas e ordenamento do território tem o idílio rural?
- Como podem as representações, imaginários, imaginações e percepções do rural contradizer a «crua realidade»?
- Como podem reconciliar-se os aspetos intangíveis e imateriais, por um lado, e os tangíveis e materiais, por outro, dos sistemas rurais? Em que medida pode o conceito de paisagem ser útil para esta reconciliação?
- Como podemos colmatar lacunas entre as representações urbanas e rurais do rural?
- Como podemos salvar a fratura entre o rural entendido como espaço agrário (produtivo), por um lado, e como um contexto natural prístino, por outro?

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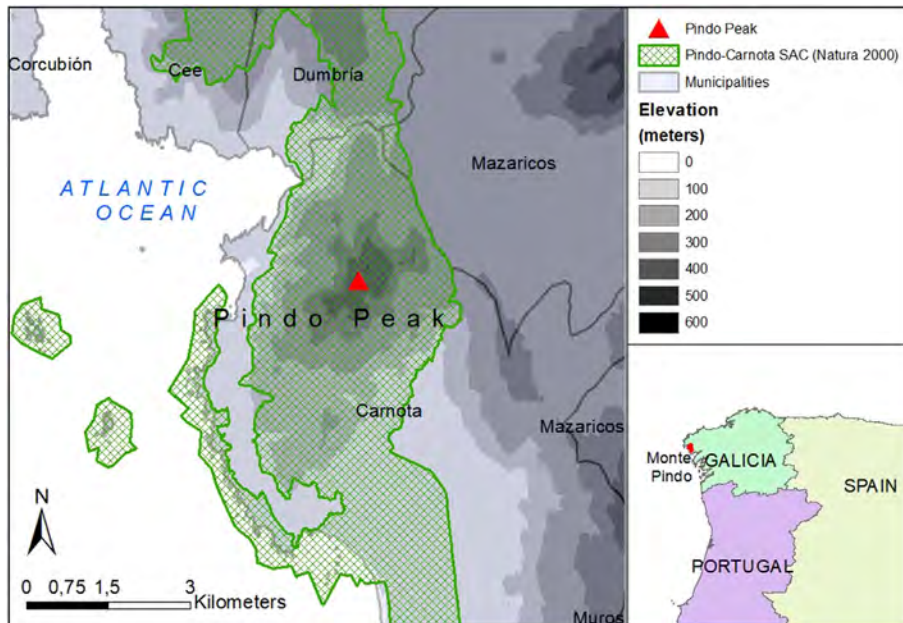
## 28. The Rural Idyll as a Driver of a Civil Campaign to Designate a Natural Park? The Case of Monte Pindo (Galicia)

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### 1. Introduction

The protected areas network in Galicia (NW of Iberian Peninsula) has been criticised by several authors because of its limited extent and its inadequate coverage of biodiversity and landscapes (Pérez Alberti, 1999; Paül, Santos and Pazos, 2015). One of the most frequently cited reasons given to explain this situation is the negative response from local populations across Galicia to the designation of new protected areas or, perhaps more significantly, the lack of local initiatives supporting possible designations in a bottom-up manner. Although various associations and environmentalist organisations work at the regional and national scales to increase protected areas, only the Monte Pindo Natural Park Association has grown from the ground up, with significant involvement from the local population.

Figure 1. Location of the case-study area. Source: Map by the author (2017).



Monte Pindo consists of a 627 m peak near the Atlantic coast, in a remote sector traditionally denominated the Costa da Morte (literally “Death Coast”, in Galician). At only

5 km from the sea, Pindo has long been significant to the local population (Fernández Naval and Villar, 2013). It possesses a complex imagery and symbolism that nowadays surpasses the local scale and is of wider significance to Galicia. The main objective of the Monte Pindo Association is to designate this area as a Natural Park, which would lead to an increase in this area's popularity.

In this context, it seems appropriate to assess the perceptions of the Monte Pindo Association in terms of the aspirations and discourses of the area's inhabitants. This perception analysis was carried out through eight semi-structured interviews in the context of the rural idyll as a social representation theorisation (Woods, 2005). The hypothesis used here is that the Monte Pindo activists view the rural landscape of the area as a natural one, as if human intervention has been limited, and confined to urban-centric locations.

## 2. Thinking "Idyllised" Rural Spaces

The binary inherent in the conceptualisation of rural as opposed to urban areas has been put into question since the rise of the new rural studies paradigms in the 1970s and 1980s (Hoggart and Buller, 1987; Halfacree, 1993; Paniagua and Hoggart, 2002; Cloke, 2006). This is not to say that the city and the countryside have merged, but that they are ontologically closer than traditional geography might suggest. According to Woods (2005), there is more than one definition of rurality depending on whether the focus is quantitative or qualitative. Woods (2005) contends that these concepts are perceived realities, meaning that it cannot be said that a region is "objectively" rural or urban.

According to Bell (2006), there are now different ways of conceptualising the rural idyll all of which are influenced by various power structures. In turn, Shucksmith (2016) argues that an ideal of the Good Countryside exists with different connotations depending on class interests and that this should empower local communities in resisting dominant capital interests in practicing policies of "repair, relatedness, rights and re-enchantment" (s.n.). Table 1 compares two approaches which fragment the rural idyll.

Table 1. *The fragmentation of the rural idyll. Sources: Bell (2006) and Somerville, Smith and McElwee (2015).*

Bell (2006)	Somerville, Smith and McElwee (2015)
<ul style="list-style-type: none"> <li>– Retrofitting rurality</li> <li>– As exclusion (producing rural others)</li> <li>– Transnational rural</li> <li>– Media idyll</li> <li>– Tourism</li> <li>– Gastro-idyll</li> </ul>	<ul style="list-style-type: none"> <li>– Physical geography</li> <li>– Perception of negativity</li> <li>– Productivist turn</li> <li>– Post-productivist turn</li> <li>– As embodied practice</li> <li>– A multiplicity of ruralities and differentiated countryside</li> </ul>

Rural populations are progressively acquiring more urban habits, in line with the development of a media or "spectacle" society in a global context (Harvey, 1989: 288). Only certain traditional values are still maintained in rural areas and these are often perceived as attractive by urban inhabitants, even though they generate contradictions or incompatibilities with the realities of urbanisation (Valentine, 1997a; Tonts and Greive,

2002). Some of these values are chosen in response to the pollution present in urban areas, creating a discourse about the “purity” of rural areas (Lowe, 1989: 115). However, as Bell (2006: 150) contends, this imaginary of idyllic pure landscapes is a social construction of bourgeois society, created in the “modern city” as an aspiration for the elite. Thus, rurality can be labelled as an urban constructed concept “cooked up for us to dream of in a popular culture” (Bell, 2006: 150).

The rural idyll has its origins in the classical period and has been present in “most, if not all, times of Western urban consciousness” (Short, 2006: 146). Short (2006: 142) highlights the relevance of “pastoral” tradition in the late 19<sup>th</sup> century in England as a way to idealise the countryside as a repository of “traditions and stability”. However, a recent fragmentation of the rural idyll emerged at the end of the 20<sup>th</sup> century. This is relevant to our understanding new perspectives on the rural idyll (Table 1). Shucksmith (2016) defines the rural idyll as “something which rural inhabitants and [...] urban residents [...] aspire to, perhaps as a vision of a good place to live or as a repository of values” (s.n.).

The cultural turn perspective seems to be an appropriate way to study the symbols, narratives and ideas which influence discourses around protected areas in the countryside (Valentine, 1997a; Frisvoll, 2014). Given that natural parks and other conservation initiatives are being used by markets as an object of consumption and profit (Ojeda, 1999; Frisvoll, 2014), they embody a “natural redemption myth” as a brand for the selling of places (Agrelo and Paül, 2018). In rural communities, therefore, these protection devices have allies and enemies. Many different interests and views appear, some of which, Bell’s (2006: 151) terms are “anti-idyll”.

The commodification of the rural leads to its commercialisation and to advertising use with the intention of placing different areas that fulfil the ideals of rurality into the market (Perkins, 2006). As a result, there is an increase in the variety of representations that people and groups make of rural areas. This has material repercussions which can be reflected in profound modifications of the landscape and even in its destruction (Tonts and Greive, 2002). Natural parks, due to their conflation of pastoralism and wilderness are notable creations of the rural idyll and its subsequent commodification (Zimmerer, 2000).

### *3. Methodological Considerations*

This contribution is focussed on a civil association created to establish a Natural Park in the Monte Pindo area. Its research subjects are the association’s members, especially those who are academics and hold executive positions, but local inhabitants who support the association are also included. Extended semi-structured interviews are a suitable means for understanding complex scenarios of different actors interacting in association (Valentine, 1997b; Agrelo and Paül, 2018). Based on six different topics provided by the interviewer, the participants were free to give their own perspectives on the area and the association, following a list of partially open ended questions.

To analyse these interviews, coding methods from the transcriptions (Cope, 2010: 281) were used, reducing the data to a list of codes or “codebook”. A large variety of different, sometimes mixed, ideas and perspectives were classified into emic and ethic codes. According to Cope (2010), these are, respectively, the ideas that are verbalised in

the interview, on the one hand, and the notions identified by the researcher during the analytic process, on the other. This binary system allowed us to identify different linkages between discourses in order to understand different perspectives on the Monte Pindo Natural Park initiative.

#### 4. Results

The results indicated a perception of the Monte Pindo landscape dominated by relief and vegetation values. These values are verbalised by participants as objective and were viewed as unquestionable fact, especially those related to the granitic geomorphology. They are understood as the main reasons for the area's conservation:

Mount Pindo relief is a magmatic relief [...] and preserves the original shape that this magmatic mass had [...] ever since 200 million years ago, when erosion eliminated all that is on top of the granite, the landscape has evolved close to nothing. [P01].

Any mountain you can go to doesn't have these altitude differences in just a few kilometres. [P05].

Through this line of reasoning, the past of the Monte Pindo landscape is nostalgically evoked by some of the older interviewees. In this discourse, losses in soil and vegetation as result of fires and the abandonment of farmland were commonly mentioned. Contradictions emerged when the same old people labelled the mountain as a valueless *Pedreghal* ("scree" in Galician):

*Pedreghal* is like a space without value, filled with stones, that offers nothing to the society, that it is not productive or useful. Because it seems that the stone in their [old people] particular worldview has no value. [...] [O]ddly, farmlands are abandoned too. [P02]

Wilderness appears as a value to be preserved, but it also seems to constitute a kind of useful commodity for selling the place. From this point of view, Monte Pindo has a solitude and purity comparable to those of other popular natural parks, or even national parks.

This is the reason, I like going to places where there is not much sun and beach people, deck chairs, etc. I used to go to places like Natural Parks or reserves. Places that were close to extinction and that are still alive due to the tourism that grows around these places. [P05].

It is relaxing for the eye, you tune out from the world for a while, don't you? You are where there are no houses or people, only vegetation, sights and sea. It's worth it. [P06].

To me it's mysterious, I don't know, every time I climb up it's like I was teleported to another time. [P07].

At the same time, most respondents also highlighted immaterial cultural values linked to identity, for instance mentioning the notion that Monte Pindo was a Celtic Olympus (Fernández Naval and Villar, 2013) and its inter-visibility with Fisterra (the Land's End for the Romans, with powerful and deep attached meaning) (Figures 2 and 3). This perspective was often linked to criticisms of what was seen as a dramatic loss of local identity, that has been progressively subsumed by other values brought from outside.

Only 300 years ago, Monte Pindo was considered a sacred mount, nothing further from nowadays. When this idiosyncrasy is lost, the fondness is also lost, it gets the sense of a load instead of an opportunity, Mount Pindo is a prisoner of this situation. [P02].

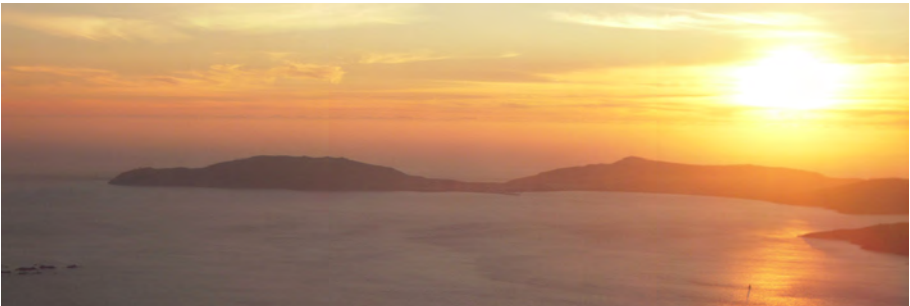
One thing is having tourism coming to enjoy something and a different thing is that you sell them a commodity. [P03].

I think that when old people tell their stories, they still live [the place] in a different way. [P08].

*Figure 2. Monte Pindo view from Fisterra, after sunset. Source: Picture by Valerià Paül (29/8/2004).*



*Figure 3. Monte Pindo view of Fisterra while the sun sets. Source: Picture by Valerià Paül (7/8/2012).*



With regard to direct public actions that should be carried out at Monte Pindo, a divergence emerged between those who live around Monte Pindo and those who do not. Both groups of interviewees understand the site primarily as a space ready for recreation and discovery. However, those interviewees who do not live in the area wished to preserve its current features with ecotourism developing with a low profile, while local interviewees expressed the need to create more infrastructure (e.g. signposting, new trails, accommodation, etc.) in order to increase visitor numbers.

I think that there are two trends: one is to protect the trees over anything else, and another is to exploit in a trekking and sightseeing way. I believe both ends should converge [...] so as not to stop. [P04].

[About former inhabitants who return for holidays] It is like if they give a value to all of it. When they show the pictures of where we are from in Facebook is like they feel really proud [...] it is very beautiful to be from where you are from, but when you are far away you can do nothing for your zone and it dies. [P07].

Even the few associates who are from Pindo [town] in the association are emigrated [...] and those are the ones who support, you see they have a bigger interest in the Mount Pindo Association. I suppose this is due to their liking for the wilderness. [P08].

All the interviewees saw the designation of a Natural Park as vital for the survival of a local community facing depopulation.

It is your son, it is your cousin, it is somebody's father, then you go. It has a value, people start to see it in a different way, to touch it. They say: if my child has a job out of it I cannot speak badly of it. [P08].

Far more populated, with trekking routes and with accesses for the firefighters in the event of a fire, I hope to see it like that in 20 years' time. [P07].

Indeed, they expressed frustration because the disagreements between Natural Park activists and detractors, is causing significant delays in the park's designation.

We, the ones who participate in the association activities, are always the same ones. Most of the people (from Pindo town) pass, they are not interested, they will always say no. [P05].

### *5. Discussion and Conclusion*

From the analysis of the interviews, it can be argued that the Association has idealised Monte Pindo. Re-encounters with the Good Countryside (Shucksmith, 2016) seems to be one of the main reasons for the infrequent civil call for natural protection in Galicia. Also, in Bell's terms (2006: 151), "the rural other" appears in Monte Pindo. Both visitors and migrants from the area who live now elsewhere conceive of the site as "a good place to live or as a repository of values" (Shucksmith, 2016: s.n.). However, the former mainly consume the place in fleeting visits as pilgrims in their Way to Fisterra, not as a relaxing step, but as a recommended stop where they can take great photographs before continuing their trip; in the meantime, the latter have secondary homes there, where they spend their weekends and/or holidays. The local residents were in favour of some protection but they did not see the landscape through the same lenses as the visitors and emigrants.

Moreover, with regard to this initiative there are "a multiplicity of ruralities", according to Somerville, Smith and McElwee (2015: 221). It is important to take different perspectives into account in order to understand the complex social constructions of the local rural idyll. By crossing the boundaries of reductionist views of rural areas it is possible for us to break down the power discourses involved. In fact, it is noticeable that a discourse of negativity towards Monte Pindo, mainly directed by big capital interests (mining, farming, etc.) is working against the Natural Park designation, by presenting protection as an obstacle to progress — and some locals apparently agree with this construction. It may be interesting to continue on this line of study to analyse the position of the Galician Government in relation to the locals and the economic interests.

A new actor is now influencing the perception of Monte Pindo. Formally created in 2010, the local association is an initiative without precedent in Galicia. However, according to the discourses of its membership, it has more motivations than just the local desire for protection. Highly influenced as it is by local emigrants living elsewhere, respected academics and regional personalities, the Monte Pindo Natural Park Association is re-evaluating local values and symbols. This Association is a noisy counterweight to the

Galician Government, which seems to be apathetic with regard to environmental issues (Pérez Alberti 1999; Paül, Santos and Pazos, 2015). The concept of the rural idyll could play an important role here in providing an example of a bottom-up decision-making process in natural area protection.

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## 29. Trends on Definitions of Cultural Landscapes and Their Impact on Rural Landscapes' Management

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### 1. Introduction

For years, those involved in the protection of natural landscapes and cultural heritage, both tangible and intangible, and in the effort to conserve them, have separated the two issues. The distinction was based on the claim that each group of landscapes and assets possesses different characteristics, which affect the way they are handled. Conservation of natural landscapes is distinguished by minimal interference of humans; the protection and conservation of cultural properties, artefacts or vegetation requires greater intervention. In the case of tangible cultural heritages, the activity may take countless forms: stabilization, reconstruction, rehabilitation, disassembly and assembly, strict and partial conservation, to name just some of them. In case of agricultural activities, the discussion was part of land uses, but not part of the discussion of conservation or preservation of cultural, environmental and ecological values.

The change in this approach occurred when the social discourse shifted, and with it, the values most emphasized: concern for the long-term sustainability of landscapes and cultural assets, social justice, responsibility of the present generation for those to come, spirit of place, belongingness to a place, vernacular heritage and ordinary landscape, focus on diversity and differences among spaces and communities. This emphasis contributed to the adoption of new definitions of cultural heritage and natural heritage. The new terms are characterised by an expansion and generalization; they have replaced the focus on a single landscape, nature reserve or cultural item and values that represent a unique natural phenomenon, important historical event, or exceptional architectural style. As part of this development, there has been increasing interest in “cultural landscapes”.

The term “cultural landscape” was not new, and for many geographers it was part of the field Cultural Geography. Until 1990s, the discussion on cultural landscapes focussed on the relationship between people and nature and the footmark of people in nature, and as mentioned above, one of the main subject was the recognition of the importance of natural resources for agricultural activity. The relationship between agricultural activities and landscape has been characterised by a balance of utilisation of the landscape — their contribution to environmental quality, and to the development of culture and society.

The 1992, decision to use the term of “cultural landscape” for representing the encounter between nature and cultural creations and add it to the World Heritage List, changed the status of this phenomena, and with in — the relationship between open space, rural and agricultural landscapes. Several countries started to look for new terms for their national, regional or local planning, combining three different landscapes: rural, natural and open space. The results are new definitions like “Rural Cultural Landscape”, “Rural Open Space”, “Historic Rural Environment” and “Historic Rural Landscape”.

These new definitions characterise a balance between nature, agricultural activities and open space, but they miss one component — cultural property, and in the case of rural landscape, Rural Cultural Tangible Heritage. In other word, there is still a missing link to fulfil the new significance of the term “cultural landscape” — a landscape that describes the meeting between culture and society; culture and nature; men activities and environmental resources; economic, cultural and social values; environmental quality and quality of life.

While the trends described above characterise, in varying rates, developed and developing countries worldwide, in Israel they are particularly noticeable for three main reasons:

- Israel experienced an intense demographic change in the 1990s, due to mass immigration from the former Soviet Union. This trend, coupled with a relatively high natural growth rate, led to increased demand for land resources, primarily for housing and employment purposes, thus aggravating the pressure on open spaces and agricultural lands.
- The size of Israel and its limited land resources. Therefore, the conflict and competition for land between various land uses are further intensified.
- The role of agriculture in Israel’s development and image, and Israel’s unique structure of rural settlements, which include especially the cooperative settlement types (kibbutzim and moshavim).

The purpose of this research is to discuss and analyse the changes that have occurred over the years in Israel in the relationship between four components, which response to the new meaning of cultural landscapes in rural areas: social and cultural values, cultural heritage properties in rural areas, new approaches for agricultural lands and increasing demands for open space. This discussion will help to strength the claim that Israel’s planning authorities should recognise the changes in the meaning of rural cultural landscapes. Such recognition will lead to a new planning approach.

## *2. Theoretical Insights*

In recent years, rural areas worldwide, namely, rural settlements and agriculture lands, are perceived as a part of the overall spatial open space system (Pike, 2001; Eetvelde and Antrop, 2005; Fleischman and Feitelson, 2007; Maruani and Amit-Cohen, 2007; Stern, 2010; Amit-Cohen and Sofer, 2017). This conception evolved in response to increasing development pressures operating widely since the last decades of the 20<sup>th</sup> century when large tracts of open space and natural landscape resources were consumed, creating irreversible changes in the rural countryside. These development trends also threaten heritage values that are embedded in the agricultural space as well as natural attributes and resources that exist in non-agricultural open landscapes with their ecological, environmental and social amenities (Alanen and Melnick, 2000; Kaplan, Ringel and Amdur, 2011).

Planners and preservationists may successfully work together in urban area, mainly in historic neighborhood, which was declared for conservation; as long as the two groups encourage solutions that present balance between old and new; between the historical values of the neighborhood and the needs of development (economic, land use changes) and the wills of current population (Chalana, 2016; McCabe and Gould Ellen, 2016).

Such cooperation does not always exist in the case of cultural heritage assets that are embedded in open areas, which were designated for preservation mainly because of their natural characteristics. In these cases, while conservation of nature and natural landscapes have already become customary over the last decades — through various approaches and methods (Maruani and Amit-Cohen, 2007) — approaches to the conservation of cultural heritage as part of the open space and agricultural landscape are still evolving.

It is accepted that the conservation of cultural heritage in the rural space is intertwined with issues that are attributed to conservation of open landscapes and natural resources in general. This linkage may lead to identification of an integrated fabric distinguished by visual, social, cultural and economic properties that are to be preserved as whole heritage landscape entities.

The link between rural cultural heritage assets and open landscapes has already been recognised in past documents and studies (Domon, 2011; Kaplan, Ringel and Amdur, 2011; Gulickx et al., 2013; Grenville, 2014). In 1999, a classification of rural landscapes was developed in the UK. This classification was based on the European Landscape Convention, and assigned considerable weight to cultural heritage assets (e.g. settlement patterns, farm types, field patterns, agricultural facilities, water towers, fences and monuments which represent an historical event) in contrast to former approaches that primarily stressed the physical-ecological attributes of the landscape (Pike, 2001). This classification method was driven by the UK Countryside Agency's desire to largely preserve the character of England as a land of rural landscapes. The Agency argued that the rural character would promote tourism and strengthen the affinity of the population with the country and its landscapes, thus leading the people to greater involvement in their conservation (Swanwick, 2002).

The US National Parks Authority also classified open space where, within their borders, nature reserves encountered cultural heritage properties, emphasising both the historical dimension and landscape characteristics (Birnbaum, 1994). This classification was based on the 1992 decision of the UNESCO World Heritage Committee, to add a new definition, "Cultural Landscape", to its document from 1972 (UNESCO, 1972). According to this definition, cultural landscape relates to the integration of natural landscapes and human cultural creation. It also expresses the concept that natural landscape serves as the background and inspiration for cultural properties (Fowler, 2003). Cultural landscapes reflect the evolvement of human society and settlement over time as well as the manner in which these are affected by the physical environment (Birnbaum, 1994). The 1992 decision to include in the World Heritage list cultural properties and sites of exceptional universal values endowed these properties with a new status, and encouraged the tendency to protect them.

Israel, as other countries, promotes local or universal recognition of cultural heritage assets, cultural landscapes and landscape ensembles worthy of conservation, including rural complexes (Ministry of the Interior, 1998, 2005). However, unlike other countries, the rural complexes in Israel present a unique manifestation not observed in other countries — the cooperative settlement complex, the kibbutzim and moshavim (Feinmesser, 1984; Kliot, 1980; Amit-Cohen, 2006, 2011; Kahana, 2011). This complex not only expresses a functional interdependence between its land designations, but also a settlement

ideology displayed in two dimensions: the textural dimension — the settlement outline and its internal division for land use as well as a point by point dimension — heritage assets ensconced within the settlement texture, in the built areas as well as in the fields. These unique rural landscapes express the local memory of the community of each and every complex including the national memory.

Heritage properties of the cooperative settlements in Israel, together with their agricultural lands and agricultural technologies are a common manifestation reflecting folk architecture, common crafts and uses — vernacular cultural heritage (ICOMOS, 1999). Yet it is precisely this common incidence that expresses its uniqueness. At present, the survival of these cultural complexes is threatened by economic, social and ideological developments, bearing implications on the planning structure of the moshavim and kibbutzim and the cultural heritage assets within them. Recognition of the importance of these complexes would bestow upon them the status of a cultural heritage, and thus include them in the list of assets worthy of conservation. Due to development needs, the planning authorities are not favourably predisposed to declare the cooperative settlement heritage complex, covering a substantial land area, as deserving a high degree of conservation. However, an additional examination of the relationship of these complexes to open space could change this situation.

The national and district outline plans approved in Israel in the past two decades refer extensively to open space as well as to agricultural land (Figures 1 and 2). And yet, although these plans link the agricultural areas to open space, they do not express the missing link — the uniqueness of cooperative settlements' cultural heritage nor recognise them as part of a unique continuous complex within the mosaic of Israeli rural landscape.

*Figure 1. Kibbutz Nir David in Israel. Open space as part of the Kibbutz landscape. Source: Picture by the author (11/10/2017).*



Figure 2. View from the Gilboa mountain towards the Valley of Beit Shean. Open space, agricultural and rural landscape in Israel. Source: Picture by the author (4/7/2016).



### 3. Research Objectives and Methodology

The purpose of this research is to present changes in attitudes to cultural landscapes, worldwide and in Israel. Also, to discuss the impact of these changes on integrated planning approach to conservation of rural areas, their settlements, agricultural lands together with open landscapes, which have been declared for conservation because of their ecological, social and cultural values (natural reserves and open space for recreation, tourism and public uses). This approach is a challenge to the prevailing planning systems, especially in small countries with accelerated development like Israel which need a guiding framework for integrated conservation (and in the case of rural/agricultural landscape, the rural cultural heritage landscape). Such a framework will utilize the prevailing act of the planning authorities which, at present, rarely develop (or at least stabilize) agricultural heritage assets, most of them vernacular, embedded in open space or natural reserve, or part of a rural landscape which holds historical and cultural values.

In order to discuss the significance of this approach for exploiting the input of the planning authorities in cases of heritage landscape fabrics in the rural zone, this research included three separate stages:

1. The first stage consisted of a review of definitions of cultural landscapes and the ways they were presented in scientific researches, universal recommendations, national and district statutory outline plans in Israel and abroad.
2. The second stage consisted of selecting a region in the Israel's rural space, interviewed stakeholders together with a field survey in order to document the tangible cultural heritage in the chosen area (existing built heritage properties, agricultural fields, groves, settlement layout, nature reserves, declared open spaces etc.).
3. The third stage was to gather the information in the first two stages, compiled and mapped it by using a GIS system.

#### 4. Conclusion

This research focusses on worldwide and Israel's perception of "cultural landscape", and the changes that have occurred in this respect over time. The findings and analysis show several conclusions:

- When cultural heritage items or heritage entities are found within or adjacent to quality open space (i.e. nature reserves embedded in open space and rural/agricultural landscape), they form a heritage landscape fabric that links the natural environment and the historic-socio-cultural characteristics.
- Since the 1990s there is increasing recognition of the balance between nature and cultural creations; it is impossible to understand one without understanding the other, and together they represent a multipurpose space.

As such, its management requires the combination of three processes:

- discovery of the values of a space — natural, ecological, social, and cultural;
- selection of representations found there that express these values; and
- supervision of the development of the space and finding ways to protect it, its values, and the selected representations.

To advance this approach, countries must promote legislation that meets these needs and they must work together. This cooperation should be practical as well as academic: multidisciplinary social and environmental research that seeks effective solutions to conserving the necessary balance.

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### 30. Realities and Idyllic Imaginaries in Irish Rural Outmigration and Return

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#### *1. Introduction*

Halfacree (1993), in a classic paper, suggests that rurality exists as an imaginary, as much as being measurable in land use or population density. An imaginary rural idyll is known to influence ex-urban residential movement and second home establishment in scenic areas at distances from large centres of population. The everyday rural realities for the resident populations often differ from the idyll and a process of secular decline may be established which the arrival of the new migrants does not necessarily reverse (Jentch and Shucksmith, 2004). Return migrants, by contrast, usually bring skills, experience and investment and help to support local services, whether working actively or retired (Dustmann et al., 2011). By comparison with the attention given to the idyll in attracting new migrants to the countryside, its presence in memories of places of origin among economic outmigrants (international outmigrants in this case), and its role in attracting them back, deserve further attention (Haartsen and Thissen, 2014; Morse and Mudgett, 2017). The purpose of this paper is to add to understandings of the idyll as an influence on return, with reference to circumstances at the time of migrant departure, the experiences of city-living overseas, reasons for returning and experiences after return, as articulated by the migrant.

#### *2. Theoretical Insights*

The idyll is originally a form of 3<sup>rd</sup> century BC pastoral poetry that lauds the countryside in contrast to urban life and has featured in Western literature and art over time (Williams, 1973). It has become applied to landscapes and cultural practices and is used for a wide range of commercial promotional purposes (Bell, 2006). From the late 1960s, as counterurbanisation gained momentum in developed countries, the idyll was identified in the imagery held (Boyle and Halfacree, 1998). Anti-urban and pro-rural tropes include open landscapes, fresh air, benefits during childhood, a relative absence of crime and a perceived sense of community. However, the idyll is underpinned by power relationships between different conceptions of rurality and can be a mechanism for exclusion (Woods, 2010). The latter is acknowledged but is not the primary focus of this paper.

Outmigration of young working-age people characterises many rural populations in Europe that are distant geographically and economically from the main sources of economic activity (Jentch and Shucksmith, 2004). This trend is long-established, including in Ireland where it incorporates international destinations. Farm incomes and agricultural employment more generally are declining because of increased mechanisation and international competition. Non-agricultural employment may be limited and advanced communications infrastructure, which promises to reduce the impact of distance and create new opportunities for rural economic enterprise, often lags behind that in urban centres



(Shucksmith, 2016). Whilst tourism is of growing importance in many scenic rural environments, seasonality usually limits the supply of permanent employment. Low density residential patterns, often associated with the idyll, can be accompanied by low levels of public transport provision and poor accessibility to essential services (Woods, 2010). Such features impinge most on those with low incomes and poor employment prospects, hence stimulating migration. Whilst many studies focus on either the imaginary of the idyll among incomers or the counter-idyll among less well-off residents, it is likely that both tropes are present among both groups to some extent.

Studies of first generation rural return migration illustrate that a remembered idyll may influence the decision to return (e.g. Haartsen and Thissen, 2014; Ní Laoire, 2007). Ní Laoire (2007: 332) found that returnees to rural Ireland drew on “classic counterurbanisation discourses” in their narratives, “interwoven with notions of family and kinship”. Morse and Mudgett (2017) found evidence of homesickness and a longing for landscape as reasons for return to rural Vermont in the USA. Together, these motives reveal relations between self, others and environment (Gustafson, 2002). More generally, reasons for rural return are related to childhood memories, stage in the life course, lifetime experiences and the expectations and influences for the future life course in which a rural idyll may feature (Stockdale et al., 2013). The reported research asked the migrant to reflect on moments in their migration experience and return which revealed in an unprompted way the presence and influence of an idyllic imaginary.

It is not suggested that an idyllic imaginary is sufficient to reverse international rural outmigration. Economic support is usually required in the form of employment, possession of sufficient investment capital to permit a business to be established or inheritance of a property/business (Farrell et al., 2012; Cawley, 2015). Retirees may have accrued savings and income from sale of an urban property. Positive recollections of a rural childhood and the presence of family and friends, with whom contact is maintained transnationally through various media of communication and through return visits, can serve to enhance recollection of the positive dimensions of rural life (Khagram and Levitt, 2008). Return visits are sources of on-going information about changes in economy and society in the area of origin. A sense of alienation in the host destination can also encourage return (Ahmed, 1999).

### 3. *Methodology*

The reported study is based on a sub-sample from a larger sample of returned migrants, who were interviewed by university geography students in 2014. Statistical representativeness was not sought. Following an ethnographic methodology, the study sought instead to capture a range of experiences of migration and return over time. The students interviewed a family member or friend who had migrated from the Republic of Ireland as an adult, lived overseas for one year or more, and returned either permanently or for a period of one year or more before re-migrating (and possible re-returning). Ninety-seven interviews were conducted, 34 of which related to migration from and return to a place of 1500 population or less (aggregate rural areas in the Irish census). In most cases it was the same place. The interview schedule included closed questions profiling the interviewee at the various migration stages (gender, age, conjugal status, education, occupation and

education/training/skills acquired as a migrant). Transnational contacts with home and contact with Irish people in the destination(s) were also registered. Opportunities were provided in open questions to discuss (in their perceived order of priority) the influences on migration(s), experiences overseas, the reasons for return and experiences associated with rural residence again. The presence of an idyllic imaginary and its influence emerged unprompted from the narratives. Most respondents provided more than one reason as influencing their decision-making. They elaborated on the positive and negative features associated with living overseas and in Ireland on return. The quantitative data were analysed using SPSS and the qualitative statements were analysed in an iterative way to identify themes and sub-themes and relate them to the migrant characteristics and experiences (Bryman, 2008).

#### 4. Results

The sample comprises of twenty-four males and ten females. The gender imbalance arises, in part, from higher levels of international, male, rural outmigration (and therefore return), following the collapse of the Irish construction industry, in 2008-2011. Some females returned to larger centres of population and were excluded from the analysis. The average period of time spent overseas was 6.3 years with a maximum of 36 years and a minimum of 1 year (seven migrants on work permits). The majority left in their late teens and early-twenties (before age 25). Some 75% of males (18) and 50% of females (5) were single and the remainder had a spouse or partner. None had children. All except two males and two females, who migrated several decades ago, had at least a secondary level education (Table 1). Unemployment was high: 45.8% of males and 50% of females were unemployed. Underemployment was particularly marked among those with a third level qualification (only one out of ten people held a managerial/professional post), who would usually have found employment in Irish towns and cities in the past. The remainder had either skilled or semi-skilled occupations (Table 1).

Table 1. Education and occupation at migration. Source: Return migrant survey.

Education	M (n=24)		F (n=10)		Occupation	M (n=24)		F (n=10)	
	n.	%	n.	%		n.	%	n.	%
Primary only	2	8	2	20	Unemployed	11	46	5	50
Secondary	9	38	5	50	Unskilled	2	8		
Third level	8	33	2	20	(Semi-)skilled	9	38	3	30
Post graduate	1	4			Professional			1	10
Post-secondary training	4	17	1	10	Farmer	2	8		
					Student			1	10

All, except one respondent, listed several reasons for migration in a rank order. Not unexpectedly, limited employment opportunities were of primary importance. Skilled and semi-skilled migrants also referred to gaining experience/skills and bettering their longer-term employment prospects. A desire to travel and learn about other cultures was mentioned especially by long-distance migrants. Individualism in seeking freedom and independence from family also featured (Thissen et al., 2010). Inherent in all of these

motivations was a consciousness of limitations on career and personal development in the area of residence.

The main host destinations were major international cities with Irish communities: notably, London, Boston, Sydney, San Francisco. Irish and British citizens, currently, have reciprocal labour market access. Migrants to Australia and Canada held 1- or 2-year work permits/visas. One migrant to the US held a 1-year visa and no one referred to being undocumented which is a known phenomenon. Graduates and longer-distance migrants, to Australia in particular, sourced employment through agencies and advertisements. Relatives and friends in the host cities provided support in finding employment for many others. Whilst the move from the countryside to a major international city must have been a personally disruptive experience, regular social contact with Irish people in the destination was the norm. All also maintained transnational contact with family and friends in Ireland through a range of media and twenty-two migrants visited at least once annually, providing opportunities to source information about economic conditions in the home area. Five people who spent one year in Australia did not visit whilst away.

Migration provided access to employment that aligned more-closely than pre-migration with education and qualifications in a majority of cases, thereby acting as an ‘escalator’ from under- and unemployment (Newbold, 2001). Additional formal qualifications were gained (by eight people) as well as experience and skills. Apart from moving out of un- and underemployment, responses to a question about differences between the host destination and the area of origin highlighted access to superior services and facilities. However, a need to adapt to a faster pace of life was compared with the more “easy going” rural area of origin. Social alienation was expressed (Ahmed, 1999): “less friendly people”, “loneliness”, “no real sense of community compared to a small village”.

The majority of respondents returned to employment, to establish a business, or on inheriting a farm or business. Return to unemployment was usually associated with the expiration of a work permit. The reason for return, mentioned by a majority in first place, referred to “missing family” (employment was often referred to later). Some respondents elaborated with reference to having a children, expecting the birth of a child or planning to have a family in the future and referred to perceived benefits of childhood within an extended family, echoing Ní Laoire’s findings (2007). There was an underlying, but usually not explicitly expressed, anti-urban view that the city area in which the migrant had lived compared unfavourably with a remembered area of origin. Lack of safety in a city was referred to as was the superiority of Irish education. Escaping the “hustle and bustle of the city” arose frequently, implying a desire to recapture a peaceful, rural, idyll. A number of younger males referred to having missed playing Gaelic football and hurling with their friends.

Differences noted, following return, varied particularly between the years of Ireland’s marked economic growth (1998-2007) and the subsequent recession (2008-2011). During the former years improved employment opportunities, service provision and housing developments were commented on favourably, although the latter was accompanied by an unexpected loss of the sense of knowing everyone locally. During the recession, well-documented declining employment opportunities, the closure of shops and unfinished ‘ghost’ housing estates were highlighted (O’Donoghue et al., 2014). Differences,

therefore, were related more to employment, quality of life and physical infrastructure. Peace and quietness received less attention, although referred to in other contexts of migration.

The features enjoyed most on return were queried and related to reuniting with family and community: “coming back to family”, “the feeling of familiarity and belonging somewhere”, “overwhelming sense of community that still existed”. In contrast with findings in Vermont (Morse and Mudgett, 2017), landscape per se was not prioritised, although references were made to being able roam in the countryside. The difficulties experienced differed between short-term returnees on termination of work permits, who had not sought/were unable to arrange work in advance, and the employed who referred to readapting to rural life. Together with unemployment, some younger people referred to the duller features of the countryside (Rye, 2006): “boredom”, “few friends of (their) own age”, loss of independence, freedom and privacy: ten people migrated again, for most of whom return was a transitional move between jobs (Newbold, 2001). Returnees who remained, contrasted service facilities negatively with those enjoyed in a city and some missed the faster pace of city life. Several referred to missing good friends left behind, suggesting that the desired closeness to friends at home did not compensate fully. Notwithstanding realities intruding on the idyllic imaginary, most adapted to life in the countryside.

### 5. *Conclusions*

Outmigration of young working-age people from rural areas is an established phenomenon with a loss of human and social capital (Jentch and Shucksmith, 2004; Dustmann et al., 2011). Attracting migrants back is desirable for demographic, social and economic reasons (Stockdale, 2006). The rural idyll is known to play a role in return and further research is merited (Stockdale et al., 2013; Haartsen and Thissen, 2014). By seeking to capture key features of the economic migrant experience in a city destination from arrival to return and post-return, this paper sought to contribute further to understandings of the rural idyll using Irish evidence. The sample is relatively small and includes skilled and semi-skilled employees to a greater extent than those in management and professional occupations, but it includes rich qualitative information and supports the merits of examining the influence of the idyll across the rural migrant lifecycle. The evidence suggests that unemployment and constraints on career and personal development overshadow the idyll at the time of initial migration. Consciousness of the loss of the idyll becomes more pronounced during the reality of adapting to life in a major city. In most cases its influence on return migration is dependent on economic circumstances. The experience following return permits certain features of the idyll to be attained but the reality of rural residence also intrudes. Many migrants re-adapt but, particularly, younger people in transition between jobs may again migrate.

International outmigrants are a potentially important source of human and social capital and investment for rural areas and may retain an idyllic imaginary that predisposes them to return. Rural agencies need to be more conscious of attracting them back in designing development policies. A better understanding of the idyll should help to better inform policy.

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### **31. L'expérience de la nature entre espaces urbains et non-urbains : résidence, pluri-résidence et mobilités dans les pratiques contemporaines de nature dans le sud-ouest de la France**

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#### *1. Introduction*

Avec l'urbanisation généralisée (près de 80 % de la population française vit dans une aire urbaine en 2016, par exemple) est postulée une uniformisation des modes d'habiter. Les caractéristiques des espaces ruraux, qu'elles soient sociales, économiques, agricoles ou paysagères, sont régulièrement ré-interrogées par l'influence urbaine, comme en témoigne la proposition de Lévy (2013) de préférer le terme « d'espace à urbanité externe ». La nature, jusqu'alors associée spécifiquement aux espaces non-urbains, semble désormais être présente en tout lieu (du sol aux toits, des murs végétalisés aux parcs naturels). Mais ses contenus, ses attributs et les expériences qui en sont faites sont-ils uniformes ? Mathieu (2017) souligne que les rapports à la nature sont une composante essentielle des modes d'habiter. Les expériences de nature effectuées et recherchées s'affranchissent-elles désormais des différences entre ville et campagne ? Les mobilités entre types d'espaces, pour les expériences singulières qu'elles permettent à chacun, rendent-elles les différenciations entre catégories spatiales obsolètes ?

L'objectif de cette communication est de mettre en relation l'expérience de nature et les catégories spatiales perçues. Pour ce faire, nous proposons l'analyse de discours d'une cinquantaine d'habitants d'une variété de communes de la Région Occitanie-Pyrénées-Méditerranée (Occitanie), au sud-ouest de la France.

#### *2. Considérations théoriques : de la nature hors des villes à la nature en ville ?*

Le rapport des sociétés occidentales à la nature a connu des mutations profondes depuis le XIX<sup>e</sup> siècle (Pickel Chevalier, 2014). Ces mutations affectent actuellement les représentations du lien entre nature et catégories spatiales. Le discours traditionnel associe

campagne et nature et oppose ville et nature (Blanc, 1997 ; Tjallingii, 2000). Un des attraits de la vie à la campagne serait d'être plus proche de la nature (Kaplan et Austin, 2004). Pour compenser le mode de vie urbain, l'aménagement du territoire en France prévoit de dédier des espaces naturels aux loisirs, dans les années 1960 (Attali, 2017) et les usages récréatifs des campagnes se développent pour répondre au « désir de nature » (Le Caro, 2007 : 119).

Ces représentations sont actuellement questionnées, en convergence avec une prise en compte accrue de l'environnement (Pickel Chevalier, 2014). L'association campagne et nature perd de sa force : le rural productif est désormais envisagé de façon critique, notamment par les différents mouvements de contre-urbanisation (Halfacree, 2006). D'autre part, une troisième catégorie spatiale, depuis longtemps articulée aux deux précédentes, celle de l'espace « sauvage » (Berque, 2011) ou de la « *wilderness* », dans le contexte américain (Smith, 2008), occupe une place grandissante dans les représentations sociales de la nature. Enfin, la littérature actuelle questionne fortement la dissociation entre nature et urbain (Blanc, 1997 ; Bourdeau-Lepage et Vidal, 2013 ; Khew et al., 2014). La question des espaces ouverts en ville est une préoccupation traditionnelle de l'aménagement urbain (Schmidt, 2008) ; elle est en train de se reconfigurer autour de dimensions environnementales, esthétiques et récréatives (Lange et al., 2008) et sociales (Tjallingii, 2000 ; Schmidt, 2008 ; Khew et al., 2014). Les espaces ouverts et le végétal sont reconnus comme une composante essentielle de la qualité de vie en ville (Lange et al., 2008). La proximité des résidences aux espaces ouverts (« *open natural areas* ») devient même une norme en urbanisme dans certains pays, considérant que la fréquentation de ces espaces dépend de leur proximité (Schipperijn et al., 2010).

Mathieu (2016) distingue trois idéaux-types de rapport à la nature : l'habitant qui limite ce rapport aux lieux désirés, celui qui est dans une maîtrise technique, l'habitant éconscient qui développe un mode d'habiter éthique en tout lieu. Différant par les contenus et leurs localisations, ces idéaux-types soulignent que le lien fait entre types d'espaces et rapport à la nature pourrait ressortir de constructions et de pratiques individuelles.

La littérature met en évidence la dimension construite et historique du rapport à la nature et de son lien à la construction de catégories spatiales. L'essor de la notion de nature en ville est-il la marque d'un tournant dans la représentation de ce lien et dans les pratiques ? Les pratiques de nature en ville affranchissent-elles des mobilités vers les espaces qualifiés de non urbains ? Qu'en est-il aujourd'hui des pratiques identifiées dans la seconde moitié du XX<sup>e</sup> siècle : résidences secondaires, activités de loisir hors des villes, voire migrations vers des espaces non urbains ?

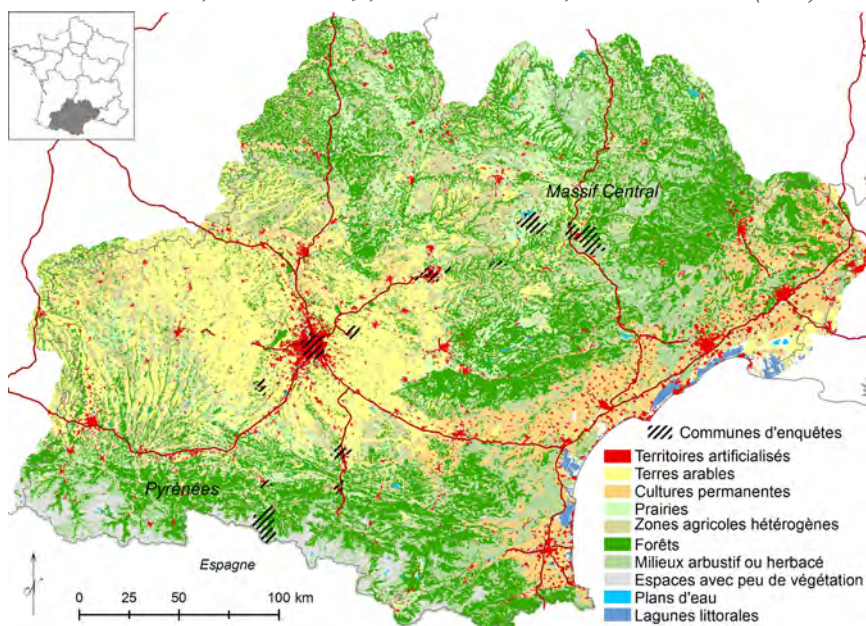
### 3. *Considérations méthodologiques*

Cette communication s'appuie sur une enquête sur la pertinence des catégories urbain et rural dans les modes d'habiter. 54 entretiens d'une heure ou plus ont été menés en 2015 auprès d'habitants âgés (sauf trois) de 29 à 50 ans sur 13 communes (densités de population 2012 de 1 à 3800 hab./km<sup>2</sup>) : 6 villes-centres et 3 communes périurbaines d'aires urbaines grandes et moyennes, 4 communes hors influence des villes, suivant la nomenclature Insee (Figure 1). L'enquête portait sur les trajectoires résidentielles, les qualifications des lieux de vie entre urbain et rural, les mobilités et le rapport à la nature de



ces habitants. Le guide d'entretien prévoyait des questions directes sur ce dernier thème (« Pouvez-vous nous parler de votre rapport à la nature ? » ; relance : « Fréquentez-vous des espaces extérieurs ? Qu'y faites-vous ? Quand ? »). L'intégralité des entretiens a été retranscrite et analysée.

Figure 1. Localisation des communes d'enquêtes selon l'occupation du sol en Occitanie.  
Sources : ©IGN ; GEOFLA®2015 ; ROUTE120®2012 ; Corine Land Cover (2012).



L'analyse transversale de l'ensemble du corpus a offert une vision d'ensemble du rapport à la nature et de son lien contemporain aux catégories spatiales. L'analyse individuelle permet de saisir l'importance diverse du rapport à la nature dans les parcours résidentiels et les mobilités de chaque enquêté. Nous avons réalisé un codage multiple (Ayache et Dumez, 2011) des entretiens sous NVivo (©QSR) en adoptant une structuration inductive de l'analyse au fur et à mesure de la lecture des transcriptions. Le codage portait notamment sur le « rapport à la nature », la façon dont l'enquêté caractérisait son lieu de résidence, le lien positif ou négatif entre nature et catégories spatiales. Nous avons identifié trois dimensions articulées des rapports à la nature : un contenu, une forme d'expérience et des pratiques qui vont permettre cette expérience. L'importance accordée à ces rapports a été reliée aux attributs des habitants interviewés concernant notamment les qualifications de leurs espaces de vie (ville, campagne, autres), et leurs trajectoires et pratiques résidentielles.

#### 4. Résultats

Sur 53 entretiens, 47 personnes répondent aux questions directes sur leur rapport à la nature, et 38 en parlent spontanément. Les entretiens montrent la diversité de contenus

(végétaux, animaux, éléments...), de formes d'expériences (pas primordial, décor des pratiques, appréhension savante, faire partie de la nature...) et de pratiques (sensibles, sportives, promenades, prélèvements, contact, transmission...) en lien avec le thème. Ces pratiques sont présentées comme fréquentes. Dans 48 entretiens, la présence ou l'absence de nature ou d'éléments de nature sont rapportées à une ou des catégories d'espace : ville, campagne, citées par les enquêteurs, mais aussi des catégories émergeant des entretiens comme la montagne et la mer. La présence de nature peut être associée spécifiquement à telle ou telle catégorie spatiale non urbaine ou à plusieurs catégories spatiales, souvent reliées par un gradient de naturalité, des villes les plus grandes (Paris) aux espaces perçus comme « sauvages » ou de « vraie nature », comme par exemple les Pyrénées ou des criques outre-mer. Enfin, plusieurs expriment des préférences personnelles entre différentes formes de nature : « chacun sa nature » (Tableau 1).

Tableau 1. Nombre d'entretiens (N) où des verbatim expriment le lien entre la nature et des catégories d'espaces.

Verbatim exprimant	N	Exemples
Il y a, il peut y avoir, de la nature en ville	20	« Dans une ville, faudrait des arbres pas que de l'herbe, ça permettrait que les gens se posent. La nature ça permet de se poser. » « Il y a de la nature en ville, aussi. C'est grâce à mes études que j'en ai pris conscience ! »
Il y a de la nature près de la ville	11	« [En ville] y a des espaces de nature, des parcs, mais ce n'est pas LA nature. Quand je veux m'évader, rapidement pas loin, parce que j'en ai besoin, je monte à [etc.] »
Il n'y a pas de (vraie) nature en ville	20	« Paris, j'ai adoré parce que j'aime beaucoup la culture, [...] mais [...] je voulais partir pour le manque de nature. »
La campagne, c'est la nature	35	« Je suis quelqu'un qui aime la nature, qui aime la campagne, donc je ne suis pas du tout dans mon élément en ville, donc mon but c'est de partir vivre à la campagne. »
La campagne, ce n'est pas (vraiment) la nature	10	« Moi, c'est la nature sauvage qui m'importe. Dans un parc, je déprime ! J'ai horreur de ça. Ou dans des campagnes, où vous n'avez que des labours ou des champs de colza à perte de vue, je me tire une balle ! »
La montagne, c'est la nature	18	« Oui, j'aime bien la nature, mais [...] j'arriverais pas à faire le pas de vivre au fin fond de la montagne. »
La mer, c'est la nature	7	« Moi, ce côté nature-mer me plaît beaucoup aussi. J'adore. »
Aucun	5	

Dans 33 entretiens, nous avons pu dégager des verbatim exprimant un tel gradient entre un pôle d'espaces où la nature domine, avec une expérience sociale (qui peut être recherchée) d'isolement et des contraintes matérielles, et un autre pôle marqué par l'accès aisé aux services, à l'emploi qu'offre la vie en ville, au prix d'autres contraintes : pollutions, incivilités. Les lieux de vie et les trajectoires résidentielles sont replacés dans un tel

gradient, même s'ils sont aussi rapportés à des événements familiaux ou professionnels. Souvent, les lieux de vie sont présentés comme permettant une conciliation des différents traits positifs, en s'établissant à « la bonne distance », celle qui permet l'accès aux facilités et aux aménités offertes par la ville tout en bénéficiant d'un cadre de vie jugé agréable. Les mobilités résidentielles permettent de choisir ce positionnement. À côté de changements de communes de résidence pour se rapprocher d'un emploi ou de services (16 cas), on identifie des mobilités résidentielles (13 cas) pour s'éloigner de la ville, avoir la possibilité de vivre dans une maison avec un jardin, voire pour s'installer au cœur d'une nature représentée comme sauvage, pour certains nouveaux habitants de communes pyrénéennes. La multi-résidence fait également partie des stratégies de conciliation, notamment par le lien conservé avec des maisons de famille, en montagne, à la mer, qui permettent de faire l'expérience régulière d'un contact avec la nature décrit généralement comme une immersion dans celle-ci (9 cas de multi-résidence actuelle ou désirée). Par ailleurs, des mobilités de courte distance permettent de chercher une nature proche du lieu de vie à l'occasion de promenades. Ce rapport à la nature passe parfois par un investissement personnel fort : faire pousser des plantes sur son balcon, créer un potager et avoir des animaux, s'investir dans une société de chasse, créer un espace de nature jugée idéale (« un paradis ») sur une exploitation où on s'installe. Beaucoup soulignent l'importance de la transmission de ce rapport à la nature, notamment d'ascendant à descendant.

Dans 20 entretiens, ville et nature ne sont pas opposées ; dans 14 cas il s'agit d'habitants de villes-centres grandes ou moyennes. Des lieux, des éléments de la ville sont jugés naturels, voire « originels ». Les contenus évoqués diffèrent : arbres anciens, larges espaces verts, fleuves et ruisseaux, ouverture visuelle vers la montagne et qualité de l'air dans les villes pyrénéennes. Les éléments évoqués peuvent être créés et aménagés (parcs, alignements d'arbres, ronds-points fleuris, jardins). Néanmoins, la maîtrise humaine apparente sur ces éléments peut compromettre l'expérience de nature, comme, par exemple, quand des plantes déjà fleuries apparaissent là où, la veille, il y avait un sol nu.

L'association entre campagne et nature est encore forte dans l'ensemble des enquêtes, mais n'est toutefois pas systématique. Les modes conventionnels de production agricoles font l'objet de défiance. À l'inverse, préserver la nature peut être décrit comme un frein pour le développement d'activités économiques. Ce sont certaines esthétiques du paysage qui sont recherchées en priorité : paysages vallonnés, ou très verts.

Mais d'autres catégories sont apparues dans les entretiens, notamment celle de montagne. L'expérience de nature décrite par les habitants des communes qualifiées de « montagne », comme ceux des villes qui s'y projettent par le biais des résidences secondaires ou de pratiques, est plus intense, parce que plus soumise à des éléments non maîtrisables par l'homme : immensité, froid, etc. Ce constat nous ramène à une nature pensée comme « sauvage » et non maîtrisable.

## 5. *Discussion et conclusion*

### 5.1. Discussion

Cette étude qualitative repose sur un faible échantillon dans une région marquée par la spécificité de l'intensité de son urbanisation, mais aussi la présence de montagnes et

d'espaces de faible densité. Ses conclusions demandent donc être confirmées par d'autres études, dans d'autres configurations spatiales. En revanche, la tranche d'âge choisie s'est avérée particulièrement pertinente pour ce thème de recherche. D'après nos entretiens, le rapport à la nature s'apprend, et nos enquêtés étaient à la charnière entre la transmission reçue et celle qu'ils opèrent vis-à-vis de leurs enfants. Par ailleurs, nos questions directes faisaient appel aux catégories (ville, campagne, nature) que nous interrogeons. Cela a obligé à une vigilance dans l'entretien et dans l'analyse pour percevoir la pertinence et le contenu que les enquêtés y portaient. Sur le thème du rapport à la nature, nous avons du moins constaté l'ampleur des discours qui s'y rapportent et comment ce terme sert à justifier ou interroger des pratiques.

Les expériences de nature ne sont pas uniquement dépendantes de la ré-introduction de la nature en ville ni d'une logique de proximité spatiale (Schipperijn et al., 2010). Les expériences de nature pour les habitants sont aussi rendues possibles par les mobilités voire des déménagements.

Les expériences de nature recueillies décrivent en partie la nature comme ce qui n'est pas produit et qui dépasse la capacité de maîtrise humaine (Mathieu, 2017). À l'inverse, les espaces agricoles produits de l'agriculture conventionnelle et l'aménagement trop visible des espaces verts urbains peut compromettre l'expérience de nature pour certains habitants. C'est à prendre en considération dans les politiques d'aménagement du territoire en favorisant la complémentarité entre types d'espaces, par exemple en accompagnant les mobilités et les trajectoires résidentielles qui peuvent s'appuyer sur des recherches de nature diverses.

## 5.2. Conclusion

Nos entretiens montrent que le rapport à la nature constitue désormais une composante importante des modes d'habiter. Loin du « tout urbain », ce que les acteurs décrivent des expériences de nature qu'ils recherchent montre qu'ils opèrent des différences entre catégories d'espaces. Ils opposent généralement les villes aux espaces non urbains. En outre, ces derniers ne se résument pas aux campagnes, les catégories de montagne et de mer s'y ajoutent. Pour certains, plutôt des habitants des villes-centres, il est possible d'avoir des expériences de nature en ville. La campagne associée à une agriculture productiviste, compromet pour certains les expériences de nature qu'ils souhaitent y vivre.

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## 32. Modernisation of Rural Houses in Egypt from Sustainability Perspective

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### *1. Introduction and Theoretical Insights*

Egypt is a country of an ancient and lasting civilisation based essential on agricultural economy and rural society. About 95% of the population is concentrated in a narrow strip of fertile land along the Nile River and its delta which represents only about 5% of Egypt's land area, whereas vast areas of the country remain sparsely populated or uninhabited. More than half of Egyptians (56.7% in 2017) still live in countryside. During the contemporary era, extending from 1900 till now, rural dwellings shifted from being traditional constructions of mud bricks in majority into blocks of urban building materials (red brick and reinforced concrete) as a mainstream.

Modernising of rural house issue has been tackled and addressed by various scholars belonging to historical, geographical, socio-economic and architectural interests. In Egypt, Fathy (1973) was a pioneer in an appropriate technology of building for the poor in Egypt, especially by working to re-establish the use of adobe and traditional architectures. He maintained that the courtyard of a house to the Arab is more than a space that controls temperature, and more than an architectural device for privacy and protection. In Germany, Koshar (2000) mentioned a good example comes from preservationists' concerns about rural modernisation for peasant-house architecture in the West German countryside. In China, Wan and Ng (2014: 4-5) address the experience of a Rural Built Environmental Sustainability Assessment System (RBESAS) which should be established for poor rural areas in southwest China. In India, Parmar (2016) outlines causes for re-thinking on Indian modernisation in rural housing sector, such as: losing cultural heritage of local house construction pattern, and various problems related to housing.

The components of rural dwelling relevant to the geographical analysis are summarised in three groups (Eisa, 2014: 184):

- Outer shape elements: dimensions of outlets (doors and windows) and their orientation, area of the building, number of floors, shape of the roof, and materials compiled above it.
- Constructional elements: building material used in walls, ceilings and floors, as well as tiling material inside and outside the house.
- Functional elements: number of rooms, use type of rooms, facilities and accessories such as: cattle shed, grain storage, oven, water closet supply, agricultural machinery stores, place of compost and livestock residues.

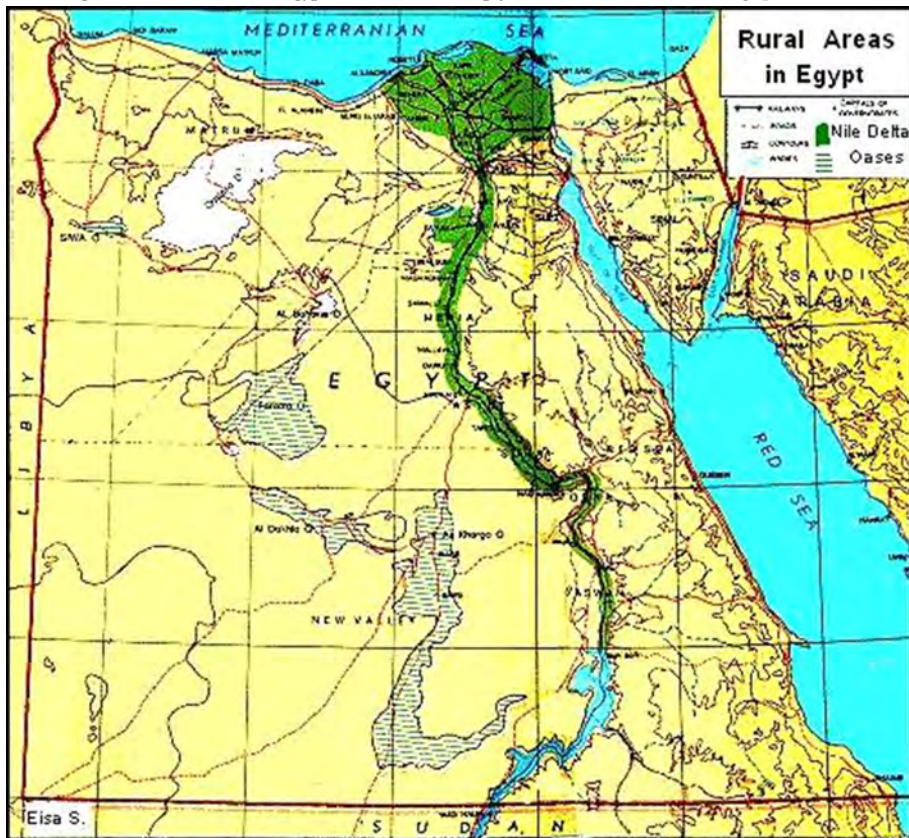
The most important factors affecting the components of rural dwelling could be distinguished in three groups: physical, economic, and cultural factors (Table 2).

## 2. Methodology

The study adopts three approaches. The first is the evolutionary approach, in following-up the changes of rural houses in Egypt during the contemporary period, and in highlighting turning points in the notable components of these dwellings. The second is the environmental approach, in explaining the connections between elements of the rural housing change and factors influencing it. The third is the behavioural approach, in interpreting motives of change in rural houses and decision-making processes for its modernisation.

The study depends on field indications compiled and analysed by the author about Fayoum 1980 and Garawan Menofia 2010 (Eisa 2014), also, on results of field studies by other scholars: Lozach and Hug (1930) for Menofia, Dakahlia, Sharquia, Beheira and Qalyubia governorates, Amador (2012) for Kafr el Sheikh, Gharbeya, Luxor and Qena, and Abodeeb (2014) for Fayoum (Figure 1). Monitoring tools like images and photographs presented useful documentary sources, while qualitative and cartographic methods clarified the spatial analysis outcomes.

Figure 1. Rural Areas in Egypt. Source: Base map from the Wind Atlas for Egypt (2006).



### 3. Findings

We could distinguish five evolutionary stages for the Egyptian rural housing in contemporary era:

1. Heritage of ancient dwellings around 1925. It is a reflection of the growing Egyptian economy and the political entity in the nineteenth century (Mahgoub, 2012). Egypt's Census of Population in 1927 enumerated more than 2,325 villages. Lozach and Hug (1930) discussed the types of rural dwellings in the tribal structure, and distinguished houses according to building material into: the brick dwellings (red or mud) on Nile valley and Delta, and the stone dwellings on the margins.
2. Agrarian Reform output housing after 1952. This stage began with the revolution of July 1952, which adopted the development for countryside and peasants of Egypt. The pyramid of agricultural holdings changed after the laws of agrarian reform in 1961.
3. Transitional rural housing related to economic openness of the 1970s. In the early seventies, one-storey buildings were the most common in the Egyptian village. They represent 75% of the buildings in the Egyptian villages. Egypt entered the era of economic openness at the end of the 1970s, many rural residents migrated to cities searching for livelihood, or travel to Arab countries that attracted Egyptian agricultural labour. The impact of internal and external migration on the urban environment has been reflected in the Egyptian countryside within the emergence of new housing patterns that did not exist before (Mahgoub, 2012: 10-11). In population census of 1986, the number of Egyptian villages reached 4129, while the number of buildings in rural Egyptian governorates was 5594487 buildings. They were distributed as follows (Tolan, 1985: 340): 5.97% of the total for buildings consisting of reinforced concrete pillars and roofs, 19% for buildings of concrete walls and concrete roofs, and 21.8% for carrying walls and other roofs, 50.3% for buildings consisting of mud-bricks, and 2.9% for other types (Figure 2).

*Figure 2. Traditional rural houses in Egypt: house of red bricks and house of mud bricks. Source: Eisa (2014: 186).*



4. Rural/urban encroachment housing around 1990 on, distinguished with: the increase in rural/urban migration, the consequent growth of cities, the urbanisation of rural areas, the intensification of urban-rural friction, and the consequent increase in rural aspirations for modernisation (Mahgoub, 2012: 9). Egypt has been



implementing the privatisation policy since 1991. The problem of landlord and tenant “in agricultural land” was treated by Law No. 96 issued in 1992 and activated in 1997, then, it was released land exploitation, and encouraged selling and buying of agricultural land for the sake of building.

5. Revolutionary orientation towards informal urbanisation up till now. The census of 2006 counted 5,941 Egyptian villages. The principals were 1,200, plus 26,757 hamlets. In April 2017, it is stated that 4700 villages are the total number in Egypt. The population census of Egypt 2017 enumerates 11,433,171 buildings in Egyptian countryside, from which 1146305 are unused fenced lands. The last figure of fenced lands indicates a dangerous state relating the sustainability of the agricultural land in Egypt.

Components of traditional rural house in Egypt include the following fundamentals which vary in capacity and quality depending on the size of the family and its requirements and standard of living (Tolan, 1985; Ghaith and Ahmad, 1998; Eisa, 2014):

- Bedroom, at least one or more rooms do exist in the rural house.
- Guestroom, a room attached to the façades of rural houses for the reception of strangers and guests, having a door heading outward.
- Courtyard, an unroofed area completely or mostly enclosed by the walls of house building. The rooms are spread out on its sides. It helps to ventilate the house and temper the atmosphere in summer and permits sunshine comes inside house in winter. It allows family moves and seating.
- Hall, a lounge open to the yard, used by family members when having meals.
- Animal barn, often built separately from the house and surrounded by the fence of the house.
- Store, located next to the animal shelter, as it is used to store their feed.
- Oven, an enclosed structure for heating, where bread and cooking are made.

Modifications occurred owing to modernisation in contemporary era in Egypt that altered traditional rural house into a modernised one manifested in Table 1 and Figure 3.

*Table 1. Modifications in components of the contemporary rural houses in Egypt. Sources: Tolan (1985), Aboudeeb (2014) and Eisa (2014).*

House component	Traditional house	Modernised house
Building material	Mud-brick and wood	Red brick and reinforced concrete
Building floors	1-2	1-7
Space usage	Sleep — cattle sheltering — agricultural purposes	Sleep — specific benefits — family purposes
Main rooms	Bedroom — courtyard — store	Guestroom — bedroom — kitchen
Sanitation	Rare	Always
Stockyard	Inside and rarely attached	May be attached or never be
Oven	In a room, sometimes outside	Outside, or non
Stores	Inside, or attached	Attached, or non
Handcrafts corner	Inside, or attached	Attached, or non
Services access	Rare	Quite often

Figure 3. Modernised rural houses in Egypt: modern single house of concrete and modern replaced buildings of concrete. Source: Eisa (2014: 187).



Factors and mechanisms for changing traditional rural house into modernised rural house throughout the contemporary era in Egypt are shown in Table 2.

Table 2. Outcomes of the Egyptian rural houses modernisation affected by its factors. Source: Aboudeeb (2014) and Eisa (2014)

Affecting factors variables		Traditional house	Modernised house
Environmental	Location	In built-up area	In and out built area
	Urban traces	Limited	Increase consumption
	Service availability	Limited	Multiple
	Service quality	Limited	Improved
	Water, soil pollution	Acceptable	Increase
	Plant residuals	Capitalised	Increase
	Industrial wastes	Rare	Increase
	Environmental designs	Spontaneous	Rare
	Environmental disasters	Exist	Decrease
Economic	Jobs	Farming, assistance	Farmers, workers, clerks
	Activities	Agriculture, commerce	Multiple
	Home-made crafts	Plenty	Sometimes
	Income	Well-known reasonable	Multi source insufficient
	Household costs	Realistic	Unrealistic
Cultural	Family size	Large extended	Small nuclear
	Family interrelationship	Integrated	Unconnected
	Cultural status	Local access	Global access
	Educational status	Pre-university	Higher and post
	Rural habits	Family skills	Society dependency

#### 4. Discussion and Conclusion

There is a spatial mechanism in the process for house modernisation in Egyptian contemporary countryside grasped by the author. This process occurred in two spatial domains: the old built-up area via rebuilding processes, and skirt extensions where new house buildings are erected, as follows:

- Inside the old blocks (replacement and renewal), one of three anticipations occurs:

- Vertical sharing in a renovated dwelling when it can only accommodate one apartment.
- Sharing the space of a large old house to create more than a house adjacent to it
- Compromising in favour of one of the heirs of a small old house, and establishing a modern dwelling in same spot.
- Outside the old blocks (initial construction):
- The house area corresponds to the economic and social status of the owner of modern housing.

Outcomes of modernisation for rural dwellings in Egypt are mentioned in a report by the CAPMAS (2016: 1-3), from which the following facts are illustrated regarding Egyptian villages:

- More than 97% of the villages of Egypt are still dependent on agricultural activity as the main activity.
- Government primary schools are located in 95.3% of the villages.
- About 60% of the villages need to establish schools.
- Only 3.8% of the villages have fixed public libraries, 2.8% have a children's library.
- About 75% of rural Egypt lacks sanitation, while 21% of the villages have sewage connected to most homes.
- Nearly 49% of the buildings of the Egyptian villages suffer from partly water discharge, while only 39% of village buildings have no water.

In conclusion, the conditions and limitations for a sustainable modernisation Egyptian rural house are:

- The rural environment is the natural incubator for the house, next to embracing the complex of other integrated elements. So, as mentioned by Sargent et al. (1991: 180), the sustainable rural development focusses on the balance between economic development and the continuous use of land, water and other natural elements to improve the human and cultural characteristics of society.
- The integrated development of rural environment is a normal action and does not affect reversely. Its sustainability in a sophisticated manner consistent with time periods. In this regard, Bryant, Bowler and Cocklin (2002: 271) cited that the human components of sustainability are dynamic, subject to change and necessarily involve many uncertainties. Sustainable development has been presented, therefore, as a social construction that varies both temporally and geographically.
- The house is a key element in the components of the rural environment as it is a mirror of the relations of its components. Therefore, Wan and Ng (2014: 4-5) emphasise that sustainability of a rural settlement is more related to the community and surrounding environment.
- The dwelling fulfils the basic requirements and well-being for the habitants. In this respect, Chambers (1983: 7) stated that raising the urban level of the village becomes a necessary matter to improve the human and cultural characteristics of rural communities. Also, Abu Qureen and Abdel Latif (1997: 2-8) adopted the concept of rural urbanisation as a necessary strategy for rural development. This strategy aims at upgrading the urban level of the Egyptian village through restructuring its urban pattern and through utilisation of its unique rural character.

- For taking in mind the desires of population towards sustainability of the rural environment matters, it should be confined rural dwellers to those who have a functional relationship to the elements of the rural environment. An analogue for this concept has been elaborated by Woods (2012: 131-132) in explaining how contemporary rural geography can draw on conceptual tools to understand the interrelationship of human and non-human actors in rural space.
- Legislation is important in maintaining environmental balance and sustainability of ecosystems. Therefore, Abodeeb (2014: 41) reports that the developing countries, such as Egypt, are highly recommended to develop a new model for sustainable construction appropriate to the existing conditions and the available resources.
- Culture and population awareness is necessary to comply with legislation and not to circumvent it. This corresponds with Woods (2005: 11) notice that “an area does not become ‘rural’ because of its economy or population density or other structural characteristics — but because the people who live there or use it think of it as being ‘rural’”.
- The sustainability of the planned housing is achieved by respecting the wishes of the users and the results of the environmental survey. So, Elsaid (2007: 19) believes that assessing sustainability requires a type of integrated view of the measured system and multidimensional indicators.
- Spatial economics considerations are necessary in house designs suitable for expansion prospects within areas of agricultural production.
- Sustainability of rural housing is achieved with access to infrastructure networks and access to services.

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### 33. Socio-Spatial Transformation of Rural Areas with the Influx of Syrian Refugees into Turkey: A Look at Çukurkuyu Town (Niğde Prefecture)

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#### 1. Introduction

Turkey has hosted the largest number of Syrian refugees worldwide. Based on the reports of The United Nations High Commissioner for Refugees (UNHCR, 2017), over 3.3 million Syrian refugees were registered in Turkey. Of those 3.3 million refugees, eight per cent lived in refugee camps, and 92 per cent resided in urban, peri-urban and rural areas (UNHCR, 2017).

Refugee camps are mainly located in the outskirts of urban hinterlands or in rural areas. Many refugees initially go to the camps, but gradually they are moved to other areas. This results in the camp becoming a transitional and temporary place from which residents migrate to other regions.

In general, communities in the rural areas have a stronger sense of social and cultural solidarity compared with those in urban areas. In these rural areas, when transitional and temporary refugee camps are deployed and massive numbers of refugees are accommodated, it may cause concern among the local community.

This study focusses on the case of Çukurkuyu town, Niğde Prefecture, where a refugee camp is located nearby, and examines how the local community is changing.

Çukurkuyu is a town in Niğde Prefecture in the Central Anatolia region of Turkey. About 250 years ago, several Turkmen tribes immigrated and settled in this town. To this day, the town still maintains a Turkmen tribal culture, especially in caring for livestock. The nomadic Turkmen culture involves moving livestock to summer and winter pastures, and this tradition still continues in the town. The climate of this area is the typical Central Anatolia continental climate, but with the introduction of an irrigation system in 1991, it has become possible to cultivate fruits such as apples, tomatoes, and melons and vegetables in large quantities.

The population of this town is 2,219 (2016) and includes principally seasonal migrants from other regions during the busy farming season. However, since the establishment of the Syrian refugee camp, which is located about 1.7 km southeast of the town centre with tents for 3,000 people (Figure 1), Syrian refugees are mainly engaged in this seasonal work.

In addition to the seasonal farming work, the refugees make frequent contact with local residents because of the physical distance between the refugee camp and the town. It is easily accessible, so the social and economic activities of the refugees are mainly carried out here.

- There are more refugees in the camps than the population of the adjacent rural area, so the local community is experiencing a period of confusion in terms of its social and economic development. This study examines the changes in the local

communities brought by the massive influx of temporary refugees, looking at three perspectives as follows (Figure 2): First, how is the influx of refugees into the labour market affecting the rural economic system in this area?

Figure 1. Location of study area is Shown (Çukurkuyu Town and Syrian Camp, Niğde Prefecture, Turkey). Source: Mapping by the author (ArcGIS 10.2).

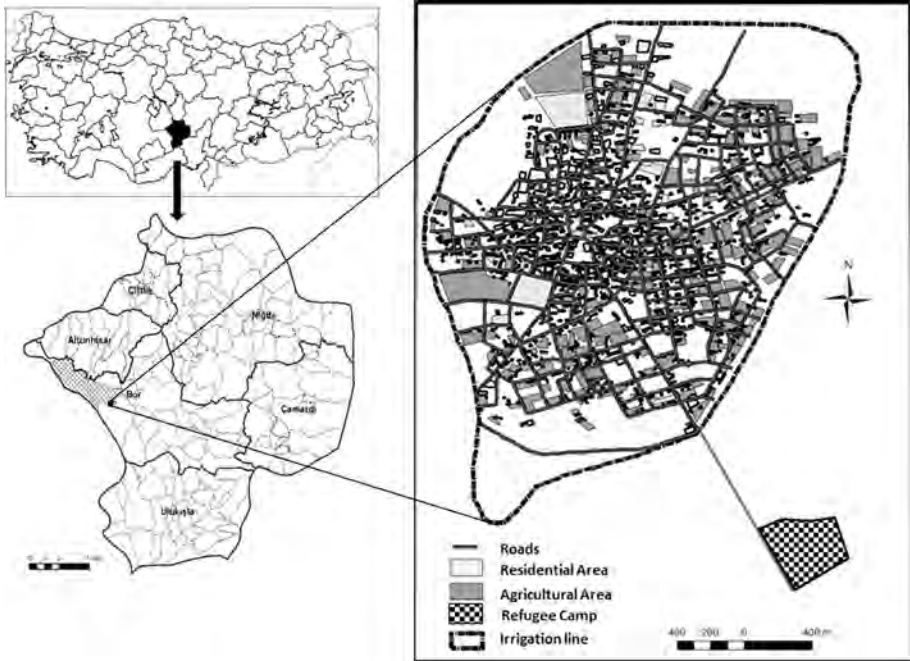
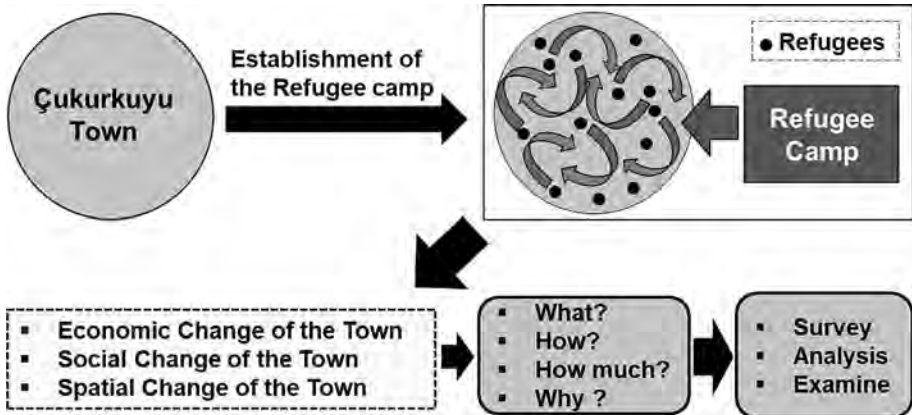


Figure 2. The scheme of the study is shown. Source: Drawing by the author.



- Secondly, how are the social changes in the local community affected as a result of the influx of immigrants with different languages, culture, and backgrounds?
- Finally, how has the use of space by local community inhabitants changed due to the influx of refugees?

## *2. Theoretical Insights*

Since the start of the Syrian Civil War in March 2011, a massive wave of Syrian refugees has been displaced to neighboring countries; the vast majority of refugees have been part of an influx into Lebanon, Jordan, and Turkey. However, recently these countries have experienced many negative impacts on the social and economic infrastructure, as well as the political systems, due to their arrival (ORSAM, 2015; World Bank, 2015; Ali and May, 2016; Binnur and Semih, 2016; Sinem, 2016; Zeinab, Pedro and Rafael, 2016; Evren et al., 2017; Oğuz and Ayla, 2017).

In Lebanon, the inflow of the large number of Syrian refugees has negatively impacted life there on different levels including an increase in the population, economic recession, depletion of social services, political instability, and decrease of security (Zeinab, Pedro and Rafael, 2016).

Likewise, in the case of Turkey, in terms of economy, refugee inflows have had a considerable effect on the employment outcomes of the Turkish natives. Specifically, the growing number of refugees has reduced the informal employment to population ratio by approximately 2.2% (Evren et al., 2017). In addition, there has been an increase in the employment of illegal workers among small businesses, and inflation has caused an increase in rental prices. On the social side, many problems have been reported. One is the difficulty of social integration due to differences in cultures and languages. Other examples include the spread of polygamy in local communities, and an increase in child labor (ORSAM, 2015).

However, most of the studies have examined the social and economic effects of the whole country from a macro perspective. In order to reduce the friction between the growing population of refugees and local community members, more refined specific research, from a micro-scale point of view, is needed to find out what changes are occurring in the communities where refugee camps are located, what problems are occurring, and how to address them.

## *3. Methodological Considerations*

To examine the impact of the influx of Syrian refugees on rural communities, this study conducted preliminary surveys on local residents on September 29, 2017 (Figure 3). Based on the results of this preliminary survey, the contents of the questionnaire were refined and supplemented, and a further survey was conducted.

## *4. Results*

Recently, the rural areas of Turkey have been experiencing difficulties with a shortage of workers. The influx of Syrian refugees as seasonal or temporary workers is contributing positively to the rural economy.

In the study area, there is a shortage of workers, and many Syrian refugees are now working as agricultural laborers. However, most residents are not satisfied with the quality of the work of Syrian refugees. According to the survey, local residents avoid the



employment of Syrian refugee workers because of language differences, unskilled labor, damage from careless work affecting agricultural products, and frequent disturbances.

Figure 3. A preliminary survey of local residents in the study area (Çukurkuyu Town, Niğde Prefecture, Turkey). Sources: Pictures by the author (29/9/2017).



In addition, the refugee camp is only a temporary residence for step-migration rather than for permanent settlement. Because of this, there are many instances where refugees behave irresponsibly or deviate from the social norms of the surrounding community. Many local residents feel uncomfortable with the turmoil and fighting of the refugees in the towns. And there was a phenomenon of space constraints that they could not go outside in the evening (Table 1). In Çukurkuyu town, refugees do not only live in refugee camps, around 60 households have settled in town. From the results of this survey, it was confirmed that there was a negative perception of local residents about all Syrian refugees (Table 2).

Table 1. A result of the preliminary survey for local residents (n=50).

Do you think that Syrian refugees constitute a threat to public order and safety in your town or Turkey?	
They are not a threat now, but it can be a threat in the future	7
Yes, a lot	39
No, they do not create any threats	2
I have no idea	2

Table 2. A result of the preliminary survey for local residents (n=50).

If people in the refugee camp had to be settled in this town, what do you think?	
I absolutely do not want	47
I do not want	3
I want	0
I absolutely want	0

### 5. Discussion and Conclusion

Turkey spent 4.5 billion dollars on Syrian refugees between April 2011 and November 2014 (ORSAM, 2015). There are also aid systems that include free education, free healthcare, and economic support for refugees. For this reason, it is a reality that many Turks feel relative deprivation as they do not receive these free services.

In the rural areas, there are many difficulties whenever anyone migrates from outside, even if they are of the same nationality. This is a characteristic of relatively poor rural communities. The sudden and massive inflow of Syrian refugees into these areas where people have a common cultural background and a high sense of solidarity has caused much confusion. In order for outsiders to settle comfortably in rural areas, there needs to be not only material and economic affordability but also an understanding of and adaptability to other cultures by the local community.

Negative perceptions of refugees are spreading among local residents because of neglected refugee management systems, environmental pollution by refugees, heterogeneity from different languages and cultures, and relative deprivation due to government refugee assistance policies. On the other hand, the refugees themselves are facing difficulties because they do not have a system to adapt to the community. For example, although refugees can enroll in schools due to the educational assistance policy for Syrian refugee students, Arabic-based students are not able to understand the lessons in Turkish. There is no language support for one or two Arabic-based students in the rural area schools. As a result, refugee students gradually stop attending school. This problem is occurring not only in education but also in society as a whole. Therefore, an effective system for refugees to adapt to the community should be established with cultural, social, economic, and education components. In addition, more realistic policies are needed, not just for the adaptation of refugees to the community, but for what they need to coexist and integrate.

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### 34. Paisajes rurales y literatura de viaje del Camino de Santiago. ¿Neorromanticismo o neorrealismo?

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*Rural Landscapes and Travel Literature of the Camino de Santiago. Neo-romanticism or Neo-realism?*

This paper considers the communication between geography and travel literature written as a means of geographic exploration. Its main objective is to reflect on the literary imagination of the rural spaces of the Way of Saint James (*Camino de Santiago*). The three travel diaries taken for study were selected on the basis of four criteria: a) proximity of the authors' cultures; b) the diaries' importance in terms of attracting potential foreign visitors to the *Camino*; c) the coincidence of the itineraries effectuated by the authors; and d) the importance of each text in its country of publication. This comparative analysis requires a simplification of the content of each text in order to arrive at a critical interpretation. This is achieved by means of fixing two criteria: i) rural landscape and the values attached to it; and ii) the relationship between landscape and human actors. The results point to the co-existence of neo-romantic representations, which help to keep alive a fascination with the *Camino*, and neo-realist representations, which root the reader in its epoch.

#### 1. Introducción

La relación entre literatura y Camino de Santiago ha sido investigada en lo referente al tema del viaje (Uña, 2013) y a la construcción de un discurso literario a partir de la práctica socio-cultural de la peregrinación (Torres, 2011; Villarino, 2015; Bello, 2016). A diferencia de estos estudios, en este trabajo se emplea la literatura de viaje como fuente de exploración geográfica y se opta por analizar la representación del paisaje y no el valor experiencial del peregrinaje. De este modo, se pretende fomentar la comunicación entre geografía (humanística, en su planteamiento metodológico, y rural, en su ámbito de estudio) y la literatura de viaje, espacio de una geografía personal (Rubio, 2004, 2011).

Tras la lectura de las obras elegidas, se seleccionan los contenidos referidos al paisaje rural. El objetivo es reflexionar sobre el imaginario literario del espacio rural jacobeo: ¿neorromanticismo o neorrealismo? Por *neorromanticismo*, se entiende la predilección por una imagen literaria cargada de sensibilidad, emoción y pasión; el *neorrealismo* supera lo estético y adopta una escritura más crítica y testimonial, y con eso más próxima a la realidad. El resultado es una alternancia de paisajes rurales idílicos, atributos de la peregrinación jacobea (Santos y Lois, 2011), y paisajes neorrealistas, indicadores de problemáticas de los paisajes frágiles.

#### 2. Consideraciones teóricas

Se propone la combinación de dos pilares teóricos: paisajes rurales y literatura viajera contemporánea. La percepción de unos y la interpretación de la otra se aúnan en el

dominio de la ideología visual y de la espectacularización de la vida en la cultura occidental, con el ojo como único medio para adquirir conocimiento (Rorty, 1980; Lefebvre, 1991). Considerado que paisaje y literatura recurren a propiedades visuales y escénicas (Arriaza et al., 2004) y, como totalidades, pueden ser analizadas en sus partes (Claval, 2005), se estructura una investigación basada en sus relaciones.

Alexander von Humboldt mudó de manera revolucionaria el concepto de *paisaje*, que hasta entonces existía solo en el ámbito estético y literario, al ámbito geográfico (Farinelli, 2009). Así que, si bien por un lado los viajeros románticos contribuyeron a un descubrimiento moderno del paisaje a través de una inédita imagen literaria (Pillet, 2017), Humboldt hizo del mismo una herramienta de conocimiento científico de lo visible (Farinelli, 2009). Según Tuan (1980), las partes que componen un paisaje son elementos de una imagen integrada, una construcción de la mente y del sentimiento. Por lo tanto, por su valor subjetivo, el paisaje se percibe de forma subjetiva (Arriaza et al., 2004). Su belleza proviene de dos fuentes inseparables: el objeto y el observador (Laurie, 1974; Rose, 1993).

En cuanto a la literatura, sus primeras investigaciones en clave geográfica empezaron a principios de los años 1980 (Seamon, 1976; Lloyd y Salter, 1977; Pocock, 1978, 1979; Tuan, 1980). Se pretendían ampliar las modalidades de estudio del espacio vivido y del lugar de acción del ser humano. El espacio literario es una fuente informativa (objetiva y subjetiva) del conocimiento de una realidad geográfica y humana (Nogué, 1983; Olsson, 1983). Siendo los textos viajeros contemporáneos combinación de visiones perceptivas y subjetivas (Suárez, 2002), se comparten aquí los resultados más relevantes de una primera exploración de la percepción de los paisajes rurales del Camino de Santiago en los diarios de viaje.

### 3. Consideraciones metodológicas

El presente análisis geoliterario se basa en tres obras publicadas en Europa. Su primer criterio de selección responde a la necesidad de adoptar el punto de vista de culturas próximas. Esta afinidad cultural es relevante para indagar la percepción de un concepto tan cultural como es el de Paisaje, que en los países de procedencia de los autores ha despertado interés académico. En segundo lugar, los autores proceden de mercados emisores extranjeros significativos para el Camino de Santiago —el mercado alemán es el segundo, el mercado francés es el quinto y el mercado inglés es el séptimo, según los datos de la Oficina de Peregrinos (2017)—. En tercer lugar, las rutas recorridas por los autores (Camino Francés y Camino del Norte) coinciden en algunas etapas. Por último, son obras destacadas en sus países de origen. Publicado por primera vez en el 2009, Bueno me largo de Kerkeling (2016) ha tenido mucho éxito en Alemania y es considerado la clave para entender la llegada de peregrinos alemanes. El Camino Inmortal relata el peregrinaje del francés Rufin (2013); ha sido galardonado con el premio Nomad's. Camino Voices del inglés Dryden (2015) es una colección de más de 200 relatos de peregrinos, acompañada de dibujos que el autor ha hecho a lo largo de su Camino y que refuerzan las descripciones de los paisajes y los relatos de peregrinos. A continuación, se seleccionan y se reproducen de forma autorizada aquellos dibujos relacionados con el tema de la investigación (puesto que el autor no ha numerado las páginas del libro, no se puede indicar dicha información).

Para el presente ejercicio de interpretación geográfica, se leen en profundidad los textos y se seleccionan los pasajes relativos al paisaje rural del Camino. El análisis comparativo requiere una simplificación de los contenidos para poder trazar una interpretación crítica, por ello se fijan dos criterios: 1) El paisaje rural y sus valores; 2) La relación entre paisaje rural y actores humanos. Desde el punto de vista metodológico, el enfoque literario permite utilizar las citas textuales como herramientas argumentativas de los aspectos destacados (Chevalier, 2001; Lévy, 2006; Marengo, 2017).

Tabla 1. *El Corpus de la Investigación. Fuentes: Elaboración propia a partir de las obras.*

	<i>Bueno me largo</i>	<i>El Camino Inmortal</i>	<i>Camino Voces</i>
Profesión del autor	Humorista, Presentador	Novelista, Académico, Diplomático	FreeLancer (editor, escritor)
País de procedencia	Alemania	Francia	Reino Unido
Estilo literario	Directo, Informal Irónico, Humorístico, Pintoresco.	Directo, Informal, Irónico, Pintoresco.	Directo, Formal, Informal, Humorístico, Pintoresco.
Camino	Francés	Del Norte	Francés
Motivación	Curiosidad	Romper con la vida social	Acompaña a la mujer
Edad a la hora de hacer el Camino	37	59	60
Inicio	Saint- Jean-Pied-de-Port	Hendaya	Saint- Jean-Pied-de-Port
Distancia recorrida	700	850	700
Año	2001	2011	2015
Período	9 de junio-20 de julio	26 de mayo-28 de junio	mayo-junio
Duración	38 días	31 días	35 días
Modalidad	A pie	A pie	En caravana

#### 4. Resultados

A continuación se presentan los resultados clasificados según dos criterios que ponen de relieve la coexistencia de representaciones neorrománticas (4.1) y neorrealistas (4.2).

##### 4.1. El paisaje rural y sus valores

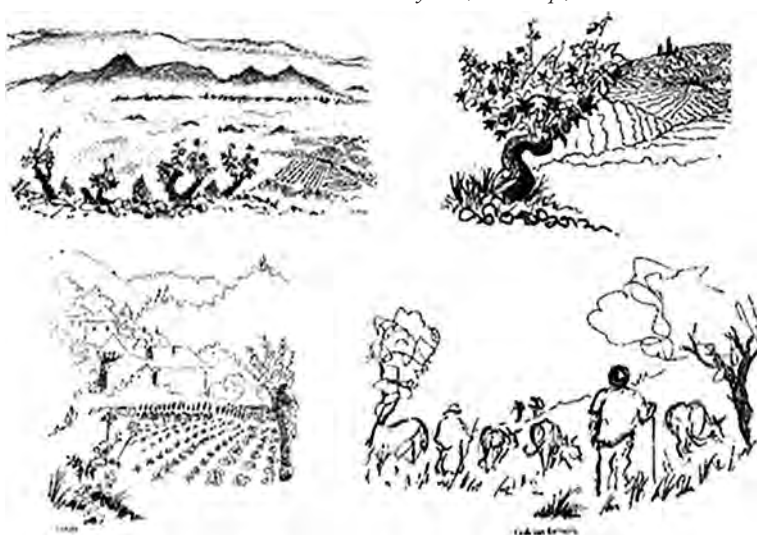
En esta primera sección se recogen las descripciones positivas del paisaje rural del Camino. Por ejemplo, Kerkeling (2016) y Rufin (2013) aprecian el paisaje vasco y el paisaje asturiano por su cuidado y por el espesor histórico que transmiten. De hecho, la sensibilidad geográfica con la cual se leen las obras es útil para reconocer los testimonios históricos del paisaje rural. Un ejemplo es el hórreo, símbolo material de una actividad tradicional de «rustica sencillez» (Rufin, 2013: 125). Como es de esperar, el pasado religioso se manifiesta a través de monasterios, ermitas de campo e iglesias parroquiales rurales. Aflora aquí la naturaleza cómica de Kerkeling, que acompaña las descripciones de estos lugares con anécdotas que entretienen al lector. También en *Camino Voces* (Dryden, 2015), el paisaje es historia cuando se recuerda más explícitamente a la sacralización de estos espacios en la Edad Media. Además, el paisaje se enriquece de pueblecitos idílicos, como los define

Kerkeling (2016), que refuerzan los sentimientos de paz y calma del paisaje natural. El lector aprecia estos valores también gracias a elementos naturales, manantiales refrescantes y sonidos naturales (cigüeñas, pájaros y gallos). Dryden (2015) dibuja con frecuencia en su libro los valles del Camino, como confirma la Figura 1. Cada uno es un sistema con su propia cultura, comida, vino, arquitectura e idioma. Esta representación coincide con el espacio rural productivo descrito por el propio Dryden (2015) y por Kerkeling (2016). Además, desde el punto de vista geográfico, se convierte en una caracterización territorial de las comunidades autónomas. Así que, el texto y los dibujos de Dryden producen la imagen de un espacio rural productivo diferentemente caracterizado. Como se puede apreciar en la Figura 2, en La Rioja y en El Bierzo hay extensos viñedos, en Castilla y León «inmensos trigales dorados» (Kerkeling, 2016: 118), y en Galicia hay explotaciones ganaderas.

Figura 1. Los valles del Camino. Fuente: Dryden (2015: n.p.).



Figura 2. El espacio rural productivo: Nájera, El Bierzo, La Faba, Galicia. Fuente: Dryden (2015: n.p.).



#### 4.2. La relación entre paisaje rural y actores humanos

La aproximación crítica a los diarios de viaje revela explícitas referencias a un desencantamiento del mundo, porque, como justamente recuerdan los mismos autores, el Camino es una porción del mundo real: «la naturaleza en la que yo había creído estar inmerso no era sino una falsa alarma, un aperitivo. No tardaron en retornar los muros a perpiaño, los huertos miserables, los maceteros de jardín» (Rufin, 2013: 33). El enfoque con el cual se abordan los textos señala una serie de problemas del paisaje del Camino. En primer lugar, existe una constatación común: la presencia de carreteras. Cabe subrayar la imagen del viandante interrumpido por estos tramos incómodos. Este es el caso de Cantabria, donde: «El itinerario jacobeo [...] me pareció monótono, deprimente, mal trazado: demasiado transitar a lo largo de las carreteras, demasiados paisajes industriales, demasiadas urbanizaciones desiertas, consteladas de letrero de “se vende”» (Rufin, 2013: 79). En segundo lugar, Rufin (2013) y Kerkeling (2016) introducen una cuestión relativamente nueva para el paisaje del Camino: su sostenibilidad. Este tema es poco presente, quizás porque está lejos del imaginario dominante: «la basura y la porquería empiezan a ponerme los nervios de punta» (Kerkeling, 2016: 154). La interferencia de esta humanización del espacio (edilicia, carretera, basura y paisajes industriales) reconduce a los peregrinos a la realidad e introduce argumentos de actualidad entre ellos cabe destacar el impacto paisajístico de los molinos eólicos:

Los inmensos generadores que recobran su identidad de máquinas [...]. Estos productores de energía limpia son máquinas violentas, arrogantes, maléficas. Su presencia en medio de los campos o en las cumbres produce una extraña sensación de fractura, de amenaza como si esas criaturas salidas del mundo industrial hubieran venido a invadir la naturaleza aún libre e imponerle su ley. (Rufin, 2013: 174).

El estilo de Rufin es útil para trazar una imagen neorrealista de los paisajes rurales gallegos que «parecían no conocer más que dos movimientos; el exilio de los jóvenes y el retorno de los viejos» (Rufin, 2013: 180). En *Camino Voices*, la relación entre paisaje rural y actores humanos no está explícitamente comentada en el texto, sino en los dibujos. Por ejemplo, en la Figura 3, el autor es fiel a su entorno dibujando el paisaje que «acoge» a los aerogeneradores.

*Figura 3. Después de Hornillos, aerogeneradores en la provincia de Burgos. Fuente: Dryden (2015: n.p.).*





### 5. Discusión y conclusión

El paisaje rural del Camino es un paisaje narrado, cuyo paso del tiempo queda marcado en las obras literarias, confiriéndole presencia y memoria. Por esta razón a través de esta investigación se ha querido indagar su representación en la literatura viajera contemporánea. Un aspecto interesante que se puede destacar del análisis realizado es una valoración distinta del espacio rural del Camino según el tramo regional. Si se postula el paisaje narrado cual patrimonio y recurso que puede actuar como elemento de identidad, de marca, de atracción y de competitividad territorial (Mata, 2011), la investigación resaltaría un distinto nivel de interés local y político hacia la ruta jacobea.

Las reflexiones derivadas del estudio confirman que, en el caso del Camino de Santiago, coexisten dos tendencias literarias. Por un lado, hay un neorromanticismo, que devuelve a remotas tradiciones humboldtianas, con un retorno de lo estético. Por otro lado, el carácter testimonial de los diarios de viaje, como se ha querido subrayar, supone una aproximación a la realidad. Por limitaciones de extensión, se ha hecho una estricta selección de los extractos textuales reveladores de un espacio rural en el cual albergan sentimientos y emociones, actividades productivas, elementos naturales y patrimoniales, pero también aerogeneradores y construcciones. A través de las citas seleccionadas se han introducido argumentos innovadores para el paisaje del Camino de Santiago, todos ellos relativos a la sustentabilidad de espacios rurales frágiles. De este modo, el valor testimonial, y en algunos pasajes también crítico, de los diarios de viaje advierte que es equivocado referirse exclusivamente a una representación neorromántica de los paisajes rurales camineros. Es necesario un estudio crítico y objetivo, para señalar que, si bien hay paisajes rurales que favorecen experiencias intensas, más espirituales y catárticas, determinando el comportamiento y el sentimiento de los caminantes, también hay otros más humanizados y desolados que decepcionan al viandante: «Si en los páramos asturianos, el Camino estaba impregnado de una espiritualidad abstracta [...], ante la proximidad de Santiago, está cada vez más marcado por los símbolos y los valores cristianos e incluso más concretamente católicos» (Rufin, 2013: 206).

Como indica Suárez (2002: 134): «La incorporación de fuentes y actitudes subjetivas en la tarea del geógrafo, deberían, pues, venir a añadirse a las otras posibles». Efectivamente, no se puede subestimar el valor testimonial de los diarios de viajes, porque a través de los mismos se revisa el predominio del ideal idílico del Camino de Santiago y se entra en contacto con la realidad, en la medida de la mediación subjetiva del escritor. A pesar de sus paisajes hermosos, el Camino no siempre es atractivo. Con todo ello, los peregrinos perciben su encanto, quizás por su estado de ánimo, estando entusiasmados con lo que están haciendo. Se podría hablar de un «efecto Camino» que afecta su visión. En resumen, se está asistiendo a un cambio epistemológico por el cual el matiz neorromántico, que mantiene vivo el encanto, convive con un estilo neorrealista y testimonial, que sitúa al lector en su época: uno no excluye el otro.

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### 35. Academic Visions of the Good Countryside in Croatia: Using the Delphi Approach

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#### *1. Introduction*

Is fostering a rural idyll the way to create truly liveable and human, economically, socially, politically, culturally, and environmentally flourishing communities in the countryside? Are idyllic rural images still “the perfect antidote to undesirable events” that characterise urban contexts in particular and in society in general, as escapists argued 30 years ago — as shown by e.g. McLaughlin in the British context (1986: 89)? Is this antidote powerful enough to support pro-rural migration as a possible solution to rural decline (Hedlund et al., 2017)? Some research has indicated that the image of the rural idyll, at least for some lifestyle groups, is one of the key components of rural revival, especially in demographic terms (Halfacree, 1994; Jetzkowitz, Schneider and Brunzel, 2007; Nelson, Oberg and Nelson, 2010; Halfacree and Jesús Rivera, 2012). Nelson, Oberg and Nelson (2010) even argued that the fact that an image of the rural idyll could actually influence migration behaviour was a testament to its power. Furthermore, social representations of imagined rural idylls are an important component of “selling the countryside”, in its various forms and products, to urban consumers (e.g. tourist accommodation, local and regional traditional food, rural festivals) (McLaughlin, 1986; Short, 2006), thereby generating important direct and indirect economic effects in the countryside.

Conversely, there are numerous critiques of the rural idyll concept, especially in the context of policy development. It has been proclaimed as power-infused, exclusivist, elitist, gender-biased and, very often, too idealistic in comparison to grim rural reality (McLaughlin, 1986; Short, 2006; Shucksmith, 2018). Moreover, popular idealised rural imagery has even been held responsible for “the absence of poverty and deprivation from the rural policy agenda in the past” (McLaughlin, 1986: 81) by masking their existence. Moreover, the idea of the rural idyll tends to glorify the past, nostalgically yearning for a lost “Golden Age” (Short, 2006).

But what about the future? How can we think and dream about desired alternative rural futures without becoming trapped in nostalgic visions of the past or being seduced by the cinematic and touristic experiences of idealised rurality? Shucksmith (2018) recently proposed an interesting answer in his idea of moving from rural idyll to the Good Countryside concept.

Motivated by Shucksmith’s (2018) paper as well as by examples of (rural) future studies (Westhoek, van den Berg and Bakkes, 2006; Lowe and Ward, 2009; Scenar 2020-II,

2009; Radeljak Kaufmann, 2016; EURURALIS, s.d.) this research seeks to contribute to the debate on academic visions of the Good Countryside by grounding it in a territorial context with predominantly negative rural development trends. This is accomplished by presenting the results obtained using a Delphi approach, which provided the basis for constructing four different alternative scenarios for the Croatian countryside in 2030, a countryside which is currently facing numerous developmental challenges (Akrap, 2002; Štambuk and Mišetić, 2002; Nejašmić and Štambuk, 2003; Pejnović, 2004; Lukić, 2012, 2013). The scenario of Rural Renaissance served as a basis for comparing recognised features of desired rural futures in Croatia with the Good Countryside concept.

## 2. Rural Idyll, Good Countryside, and Creating Desired Rural Futures

We will start with a brief introduction of the rural idyll concept and its critiques. This will explain what led us to look for other theoretical frameworks for an academic envisioning of desired rural futures.

Although Shucksmith (2018) clearly differentiates between the rural idyll and Good Countryside concepts (and the title of his paper reflects the succession of the two concepts), it is worth noting that both have their roots in the ancient past (provided that we understand the latter as an updated version of the Good Life philosophy). Short (2006) traced the roots of the rural idyll to Roman writings, although he noted that some authors also pointed to Hellenistic or Alexandrian Greece. What is important is that today, two thousand years later, we still find the same elements surrounding the same basic concept: harmony, permanence, security, inner strength, refreshment, renewal, family values, community cohesion, a respect for necessary authority, and an emblematic nationhood and aesthetically pleasing milieu (Short, 2006). This view strongly correlates with the well-known discourse developed by Ferdinand Tönnies which depicts family and rural life as reflecting the typical community (*Gemeinschaft*) — free, authentic, natural, and based on the relationships between human beings without a specific purpose (Jetzkowitz, Schneider and Brunzel, 2007). The counterpart is, of course, that society (*Gesellschaft*), which takes place in the urban context. The authors concluded that this concept was still an important social representation of the countryside in Germany (2007). Indeed, Bell (2006) contended that the rural idyll was actually an urban construction and recognised three ideal-typical idylls clearly reflecting this view: the pastoral (farmscapes); the natural (wildscapes); and the sporting (adventurescapes), all evidently desired by the contemporary urbanite. Such powerful images and symbolism of the attractiveness of the rural idyll, as McLaughlin (1986: 89) noted decades ago, are not new but “they have, however, been the subject of different interpretations over time and different generations have tended to use idealised rural images for different purposes” (e.g. Figure 1).

This literature review has revealed some insights into the current role of the rural idyll in shaping the countryside. In general, the rural idyll is rarely seen as an isolated reason for pro-rural migration, although, unlike migration in general, lifestyle-related aspects are of particular importance (Halfacree and Jesús Rivera, 2012). There is a plethora of evidence that cultural constructions of idealised rurality are usually intrinsically interwoven with responses to global economic restructuring (especially the increase in footloose entrepreneurs and/or service workers) and demographic trends (an increase in the tendency

*Figure 1. Rural idyll — for whom? Depopulated and touristified village in the coastal hinterland of Rijeka (Croatia). Source: Picture by the author (2011).*



*Figure 2. Newly-built homes in a rural area on the periurban fringe of Zagreb (Croatia). Accessible rural areas close to selected macro-regional and regional centres are the most desirable residential locations for pro-rural migrants — but even their population growth is slowing due to the depopulation of the country as a whole. Source: Picture by the author (2009).*



of people between 50 and 60 years of age to migrate to rural areas) (Nelson, Oberg and Nelson, 2010). Recent trends in suburbanisation in Germany reveal that reasons for migration were closely related to certain life-style groups and that a desire for pro-rural migration could not be contextualised independently of lifestyles in general (Jetzkowitz,

Schneider and Brunzel, 2007). Munkejord (2006) noted that in-migrants in the small town of Finnmark in Northern Norway, contextualised their good life as a combination of rural and urban lifestyles and activities, as opposed to the usual rural-urban dichotomy. These selected examples clearly show the unstable nature of assumptions that pro-rural migration is driven exclusively and/or predominantly by the social representations of rurality, no matter how nicely painted they might be (Figure 2).

Furthermore, what seems to be even more important is that the rural idyll concept is often seen as normative and power-infused (Shucksmith, 2018). It was also recognised several decades ago (McLaughlin, 1986) that discourses about the rural idyll intensified rural poverty and disadvantage (Shucksmith, 2018) by masking their existence. In an attempt to move discussions about the relation between the rural idyll on the one hand, and the past, present and the future of the rural on the other, forward conceptually, Shucksmith (2018) proposed the Good Countryside model. The roots of this Good Life model, similar to those of the rural idyll, could be traced to the ancient Greeks, more precisely to Aristotle's *Nichomachean Ethics*, where the Good Life is defined as one in which an individual strives for moral and intellectual virtue (Evensen and Stedman, 2017). But some authors have also insisted that the concept is useful in the context of modern society because it contains the idea of a better world and a better existence than that which we currently enjoy (Evensen and Stedman, 2017: 2). The concept of "Good", besides its current popularity in the Good Places context, is also present in at least two closely related frameworks: Good Food, Good Jobs (Myers and Sbicca, 2015), and Good Farmers (Sutherland and Darnhofer, 2012).

Shucksmith (2018) noted that, although there was a substantial literature on rurality and on the Good Life concept, what this lacked was a greater discussion of what might constitute a Good Countryside in the sense of desired alternative futures or of an underpinning morality. Shucksmith (2018) developed this proposal based on utopian thinking and the Good City debate and offered some possible roles for academia in pursuing the Good Countryside model. His starting point was Amin's (2006) four registers of social solidarity, which were then enriched with other inputs. In a woefully brief overview, the four registers are:

- repair (maintaining sustainability and resilience of social environmental and economic systems);
- relatedness (social justice, encompassing provision of jobs, welfare, education, health care, and shelter of law);
- rights (participation, citizenship, governance and power); and
- re-enchantment (enjoying rural places and societies, socialising, public life and culture, relations to place, landscape and heritage).

### *3. Using the Delphi Approach in Envisioning Alternative Rural Futures*

Given the aim, complexity, and the nature of this research, the Delphi method was chosen as a preferred research approach. It is a well-known approach for structuring group communication processes to deal with complex problems (Linstone and Turoff, 1975). Our Delphi study consisted of two rounds of written questionnaires.

The choice of potential members of the Delphi panel was made based on their employment in academia, and following discussion regarding their roles and responsibilities in rural research and envisioning (Cernea, 1984; Shucksmith, 2018). Their rural expertise was primarily investigated by analysing the published papers of potential panel members. Furthermore, regional representation (or the knowledge of different regions) was an important factor in selecting the pool of experts, as were their disciplinary backgrounds. The following disciplines were represented: agronomy (3); agricultural economics (6); anthropology (2); architecture and urbanism (1); demography (3); economics (3); ethnology (1); forestry and environmental protection (1); geography (9); spatial economics (2); social work (1); and sociology (5). Out of 57 academic experts who were initially contacted via e-mail, 37 participated in the first Delphi round, of whom 13 participated in the second round.

The time frame for the first Delphi round was June/July, 2017, and for the second round August/September, 2017. The first questionnaire was disseminated via an online service and the second via e-mail. The second questionnaire included the results of the first round, giving experts the opportunity to comment on them, and change their original responses.

The primary aim of the Delphi approach was to develop scenarios in a procedure similar to that of Lowe and Ward (2009). Four scenario narratives were created, and their consistency was checked, with experts suggesting ways to improve them. The Rural Renaissance scenario served as a basis for applying the Good Countryside concept.

#### *4. Results*

The Rural Renaissance scenario was clearly the most-desired storyline and, as such, served as a basis for comparing recognised features of the envisioned rural futures in Croatia with the Good Countryside concept, as discussed in the previous sections. Selected insights are summarised in Table 1.

#### *5. Discussion and Conclusion*

The rural idyll must still be taken into account in researching contemporary counter-urbanisation, rural gentrification and commodification, regardless of any relativisation of its dominance in pro-rural migrants' motivations, and of numerous critiques, and even accusations, regarding its ability to obstruct the realisation of a morally, socially, economically, and culturally better countryside. However, in the process of dreaming about and envisioning the Countryside of Tomorrow, we found discussions on the Good Life more inspiring because they seemed morally and socially correct, and because this is the way many people think that the future should look.

The Good Countryside concept (Shucksmith, 2018) proved to be useful, both theoretically and methodologically, in recognising features that might be lost in the usual thematic approach in scenario analysis (e.g. coding opinions of Delphi panellists into demographic, social, economic, cultural, environmental, and other categories). Although Shucksmith (2018) did not provide a list of the necessary features of the Good Countryside model (e.g. as in Nussbaum's list of ten central human capabilities, developed as an applicable account of what a basic minimum of social justice should look like for political



purposes — Scott, Rowe and Pollock, 2016), we found its building blocks (registers), examples, and research questions useful in relating to most views expressed in this Delphi research exercise.

*Table 1. Conceptual mapping of desired features in the Rural Renaissance scenario in Croatia onto the recognised building blocks/registers of Shucksmith's (2018) Good Countryside concept.*

Repair	Relatedness
<ul style="list-style-type: none"> <li>• Growing number of active rural development actors strengthens local social capital</li> <li>• Networking of local actors through cooperatives, clusters, producer organisations, and other types of organisation enables more efficient and competitive access to markets</li> <li>• State support for developing more efficient economic systems (e.g. agriculture) through technological advancement (land use improvement, irrigation), removing legal barriers (ownership issues) and consultancy-based mechanism</li> <li>• Better planning and development of communal infrastructure and transport networks due to more efficient governance developed through cooperation between various actors and levels of government</li> <li>• Natural resources and environmental assets (e.g. protected areas) are managed in a sustainable way that protects local identity and provides economic benefits, as well as securing long-term environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting balanced regional development as a territorial policy imperative</li> <li>• Coherent population policies supporting demographic development (with a focus on financial and housing support for young families and young in-migrants while also providing innovative models of social care for elderly populations)</li> <li>• Support empowering state-to-local development through a more encouraging legal, financial, and business framework</li> <li>• Diversity of job opportunities in a multisector economy: market-oriented conventional agriculture; organic agriculture; integration of agriculture and tourism; fishery; forestry; production sectors; and various selective forms of tourism</li> <li>• Access to business opportunities and development should be provided for aspiring entrepreneurs regardless of their social and economic backgrounds</li> <li>• More significant impact of CAP and other EU funds after 2020 together with better absorption capacities at the local level help to develop access to now disappearing social, education, and health services</li> </ul>
Rights	Re-enchantment
<ul style="list-style-type: none"> <li>• Local voices at the forefront of the developmental agenda (proactive individuals, Local Action Groups)</li> <li>• Decision-making processes related to endogenous resources are harmonised through dialogue and cooperation between state, region, and local communities</li> <li>• Efficient and fruitful cooperation among different levels of government</li> <li>• New forms of decentralisation begin to develop emerging from real-life experiences</li> </ul>	<ul style="list-style-type: none"> <li>• The social composition of the countryside is changing due to the in-migration of different social and lifestyle groups (amenity migrants, seasonal service workers, young urban workers and professionals, forced international migrants) which creates new opportunities for reimagining the rural as a vibrant, welcoming, and supporting milieu</li> <li>• New forms of natural and cultural heritage valorisation emerge, supporting tourism development</li> </ul>

The Good Countryside concept enabled us to focus on moral questions as a prerequisite for constructing a pathway towards desired futures. Moreover, the most important question, according to Shucksmith (2018: 170), concerns the actors: “who should decide the morality which underpins the Good Countryside and how should this be determined and debated?”. That focus helped us to reconsider the analysis of the first Delphi panel responses and to look for frequently implicit ideas that provided answers to those questions. Some of the academic visions for desired futures for the Croatian countryside (Table 1) clearly fit Shucksmith’s (2018: 169-170) envisioning of the Good Countryside as “networked rather than insular”; “agentic rather than passive”; “with the support of an enabling state”; and with its sustainability ensured by “a shared responsibility between citizens and state, not just a matter for self-help or an invisible hand”. However, some features which have been recognised as having great importance for the desired futures for the Croatian countryside, and thus fall, in our opinion, under the concept of Good Countryside, were not so clearly expressed as being components of the concept; e.g. balanced regional development, coherent population policies, or geopolitical stability. Nevertheless, we managed to connect some of them with the proposed registers, which also showed the comprehensives of the Good Countryside concept.

These examples indicate, unsurprisingly, that different rural development challenges and priorities exist in different international contexts. An interesting future research question might be whether and in what ways do the present realities of rural areas (especially concerning power relations in rural development) in different political, economic, cultural, and social contexts have an influence on the envisioning of Good Countryside models of the future.

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### 36. Cuestión de límites? Unha lectura territorial da Ribeira Sacra —candidata a Patrimonio Mundial— como paisaxe cultural

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*Question of Borders? A Territorial Analysis of the Ribeira Sacra — Candidate to World Heritage — as a Cultural Landscape*

In 1996 the Ribeira Sacra Candidacy was submitted to the UNESCO tentative list of World Heritage Cultural Landscapes. At least 26 different delimitations of Ribeira Sacra have been proposed. This fluid and changing practice for creating borders can be read through two connected, albeit not interchangeable, concepts: *landscape* and *region*. By mapping and analysing these 26 delimitations, we aim to understand the actors involved and reasons behind them. The larger delimitations seem to be connected to branding and tourism purposes, while the smaller ones are apparently linked to landscape and protection policy-making. If the Ribeira Sacra cultural landscape can be conceived as a region in Paasi's terms remains still an open issue.

#### 1. *Introdución*

Dos 29 elementos incluídos na chamada «listaxe tentativa» española para formar parte do Patrimonio Mundial da UNESCO —segundo a análise realizada da páxina <http://whc.unesco.org/en/tentativelists/state> (consultada o 20/1/2018)—, o que leva máis tempo, desde 1996, é a Ribeira Sacra. As dúas décadas transcorridas revelan unha parálise na súa tramitación por diversos motivos; entres eles, a pertenza a dúas provincias distintas (Lugo e Ourense), administradas por cadansúas deputacións, ou a existencia de encoros, cuxa presenza é considerada despersonalizadora da paisaxe. Ese longo hiato temporal manifesta tamén a dificultosa delimitación territorial dunha paisaxe de marxes ambiguas e imprecisas. Ironicamente, o texto da candidatura «tentativa» reza que se trata dunha zona «très bien délimitée géographiquement».

Nese parco documento explícase, tamén, que a Ribeira Sacra confórmase por un feixe de mosteiros localizados nas beiras dos ríos Sil e Miño. Asemade, e xa alén dese texto, asóciase ao viño homónimo, que, por mor das abas moi pronunciadas, se cultiva mediante socalcos; este viño está amparado por unha denominación de orixe (DO) establecida en 1996 (Lois, Paül e Santos, 2012). Pódese argumentar que a combinación de ríos encaixados, mosteiros e bacelos en pendentes conforma o patrón que caracteriza a paisaxe

da Ribeira Sacra tal e como a vemos hoxe. A superposición destes tres elementos non é perfecta, o que desemboca nunha tensión territorial e paisaxística (Figura 1).

*Figura 1. Os tres elementos do patrón paisaxístico da Ribeira Sacra, fotografados de forma disxunta. A súa coincidencia no espazo resulta limitada. Fonte: fotografías de Xosé Manuel Rosales (26/10/2014), Valerià Paül (22/10/2017) e Manuel Rodríguez (31/1/2018).*



O topónimo ten orixe na alusión á «Rivoira Sacra» nun documento do século XII, na actualidade interpretada como un carballo considerado máxico (talvez por tradicións precristiás). A cabalo dos séculos XVI e XVII, un padre bieito asociou esa designación orixinal á presenza de mosteiros na zona. De entrada, esta atribución, invocada arreo desde daquela —mesmo ante a UNESCO—, apunta á natureza «inventada», no sentido dado por Hobsbawm e Ranger (1983), da Ribeira Sacra. A «invención» non semella esgotar aquí, pois abrangue a emerxencia da noción dunha «paisaxe da Ribeira Sacra» cuxo carácter consiste nos tres elementos da Figura 1. A devandita «invención» sublima nos anos 1990 co impulso turístico da Xunta de Galicia co albo de desenvolver «o» destino turístico icónico rural galego e, en paralelo, coa decisión de crear, e así denominar, unha DO sen unha individualización clara agraria e vitivinícola de partida (Santos, 1992; Lois, Paül e Santos, 2012). Este proceso reflíctese, de xeito decote inconfeso, no espello do Alto Douro portugués.

Neste contexto, pretendemos explorar a delimitación da Ribeira Sacra a través dunha análise das propostas xurdidas. Isto levámosto a cabo no seo da conceptualización das nocións de paisaxe cultural e delimitación rexional e paisaxística, que permiten discutir os resultados obtidos contra o final. O obxectivo resulta acaído dado que, desde 2013, estase a empurrar de novo pola candidatura a Patrimonio Mundial, sobre a que cómpre reflexionar criticamente en paralelo ao seu (definitivo?) pulo.

## 2. Consideracións teóricas

Como é sabido, Sauer (1925) fixa o concepto *paisaxe cultural* nos seguintes termos:

The cultural landscape is the geographic area in the final meaning (*Chore*). Its forms are all the works of man that characterise the landscape. [...]

The cultural landscape is fashioned out of a natural landscape by a cultural group. Culture is the agent, the natural area is the medium, the cultural landscape the result. Under the influence of a given culture, itself changing through time, the landscape undergoes development, passing through phases, and probably reaching ultimately the end of its cycle of development. With the introduction of a different, that is, alien culture, a rejuvenation of the cultural landscape sets in, or a new landscape is superimposed on remnants of an older one. [...] Within the wide limits of the physical equipment of area lie many possible choices for man, as Vidal never grew weary of pointing out. (Sauer, 1925: 46).

Sauer (1925) refírese, pois, a unha «área xeográfica», cunha única indicación para a súa delimitación: a presenza dunha cultura que dea transformado un ambiente natural preexistente. Polo tanto, a demarcación dunha paisaxe cultural devén ambigua xa en orixe. Con todo, a referencia a Vidal de la Blache ofrece unha pista, pois o xeógrafo francés baseara a delimitación de comarcas (*pays*) e rexións na suposta presenza dunha/s paisaxe/s que as dotasen de coherencia (García Álvarez, 2006; Lencioni, 2009; Latasa, Lozano e Mata, 2017; Paül, 2017). De aí que se teña argüído que os límites dunha *rexión* —a calquera escala— poidan sustentarse en argumentos paisaxísticos. A cuestión, de difícil (seica imposible) solución, é como establecer esa delimitación.

Non se pode aquí detallar o percorrido da noción de *paisaxe cultural* a partir de Sauer (1925). No entanto, resulta transcendente a súa resignificación en 1992 coa modificación do Convenio para a protección do Patrimonio Mundial da UNESCO aprobado vinte anos antes (Gómez Mendoza, 2013; Latasa, Lozano e Mata, 2017) mediante a inclusión dunha categoría específica homónima:

Cultural landscapes are cultural properties and represent the “combined works of nature and of man” designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.

They should be selected on the basis both of their outstanding universal value and of their representativity in terms of a clearly defined geo-cultural region and also for their capacity to illustrate the essential and distinct cultural elements of such regions. (UNESCO, 2008: 85-86).

Este documento susténtase, como resulta obvio, nunha definición vidaliana. Asemade, concreta territorialmente a indefinición saueriana ao esixir «unha rexión xeocultural claramente definida», dotada de «elementos culturais esenciais e distintivos» —e nótese a igualación de *paisaxe* e *rexión*—.

En Europa, desde a aprobación do Convenio Europeo da Paisaxe en 2000, multiplicáronse as iniciativas nesta materia (Silva, 2009; Gómez Mendoza, 2013; Latasa, Lozano e Mata, 2017; Paül, 2017). Cómpre apuntar tres cuestións deste tratado:

- Evita a adxectivación, polo que conxuga mal coa declaración de paisaxes *culturais*, así denominadas, a pesar de que se estean a designar moitas como tales. De feito,

estipula que a *paisaxe* é un concepto integrador: de miradas (percepcións) e de elementos e factores naturais e/ou culturais.

- Declara que todo o *territorio* é *paisaxe*, de xeito que queda explícito que non deben abranguerse só as paisaxes *excepcionais*. Isto racha co tradicional foco posto naquelas consideradas «mellores», «singulares», «especiais», etc.
- Inclúe un compromiso expreso pola identificación (e cualificación) de todas as paisaxes presentes nun territorio, o que se interpretou como unha porta ao establecemento de *unidades paisaxísticas*.

Sobre este último asunto, existe unha prolongada tradición de traballo, orixinada mesmo antes ca Vidal e Sauer, que desemboca en ferramentas investigadoras, e de ordenación, cunha variada casuística (Pérez-Chacón, 2002; Serrano, 2012). Cómpre subliñar que as *unidades paisaxísticas* fixan límites espaciais; polo tanto, crean *rexións*, entendidas no seu sentido máis básico, malia as diferenzas que se poden nomear entre *unidades paisaxísticas* e *territoriais* (Latasa, Lozano e Mata, 2017).

Así pois, a delimitación das paisaxes pode ser entendida como rexional, unha lectura que conecta coa tradición vidaliana. No fundamental, a xeografía clásica —Vidal incluído— sostén que as *rexións* son «unidades verdadeiras» e «obxectivas», dotadas de personalidade de seu, e, frecuentemente, como xa se dixo, dunha paisaxe propia (García Álvarez, 2006). En cambio, a partir da década de 1940 esta concepción entra paseniño en crise, por exemplo coa emerxencia das rexións funcionais; así, na xeografía francesa, o ensaio de Lacoste (1976), que racha coa herdanza vidaliana, defende que a *rexión* é un «concepto-obstáculo» creado para distraer a atención dos procesos espaciais relevantes.

De entre as distintas formas alternativas de ler *rexión* que xorden da recomposición teórica das últimas décadas, salientamos aquí as que sosteñen que esta non pode ser tomada como unha unidade territorial apriorística e dada por sentada. Ao contrario, a investigación debe cuestionar a existencia da rexión, entendida como unha construción sociopolítica. Neste senso, Paasi (1986) suxire que as rexións non «son», senón que se atopan na dinámica de «chegaren a ser» a través dun proceso denominado de *institucionalización*, conformado por catro fases, que poden non darse todas nin acontecer en paralelo:

- Asunción dunha forma territorial. Paasi (1986: 125) cita que unha paisaxe dada pode ser «tomada» para xustificar a delimitación rexional.
- Desenvolvemento dunha forma simbólica. Paasi (1986: 129) menciona que as paisaxes constitúen símbolos rexionais moi acaídos neste proceso.
- Desenvolvemento de institucións propias.
- Xurdimento dunha identidade e dunha consciencia rexionais.

### 3. Consideracións metodolóxicas

Estudáronse 26 delimitacións da Ribeira Sacra, desde 1991 até 2017; en catro casos facían referencia ao Canón do Sil/Miño, concepto xeográfico igualado na promoción turística ao primeiro. Son de distinta natureza: perímetros de xestión (n=10); delimitacións propostas en informes ou plans que carecen (por agora) de mecanismos de xestión específica (n=9); e guías turísticas e outros libros de divulgación en xeral (n=7). Estas 26 delimitacións foron trasladadas ao programa ArcGIS e superpostas á mesma escala.



A análise que se realiza no seguinte apartado agrúpaas a partir da interpretación tanto das configuracións territoriais resultantes como da lectura dos documentos que, nalgúns casos, as acompañan. É importante subliñar que foron desbotados moitos textos sobre a Ribeira Sacra que, malia achegaren unha caracterización da súa paisaxe (ou do seu territorio), non conteñen unha delimitación precisa.

Agás nun caso, non se ofrecen na bibliografía final as referencias todas, por falla de espazo. No entanto, as Figuras 2 e 3 citan as autorías das delimitacións representadas.

#### 4. *Resultados*

O estudo realizado permite diferenciar dous grandes tipos de delimitacións que operan a escalas distintas: por unha banda, desde unha concepción máis abrangente; pola outra, a unha escala menos ambiciosa. Ímolos revisar deseguido, con cadanseus mapas interpretativos de síntese.

##### 4.1. *Delimitacións amplas*

Estas demarcacións (n=16) amosan un concepto vasto da Ribeira Sacra, polo xeral adscribíbeis a cuestións turísticas e de desenvolvemento rural (Figura 2). Todas elas resultan da suma de concellos. Globalmente, abranguen até 38 concellos diferentes, o que implica unha superficie de 4.589,8 km<sup>2</sup>. A delimitación que inclúe unha maior superficie, e un maior número de concellos (n=23), é a da área de estudo da proposta de BIC (2017), con 2.699,8 km<sup>2</sup>. Na metade dos casos maniféstase a división provincial, de xeito que se atribúe «Ribeira Sacra» a un territorio exclusivo dunha das dúas provincias, de forma disxunta coa outra.

##### 4.2. *Delimitacións reducidas*

Estas demarcacións (n=10) son máis modestas cás amplas e invocan criterios paisaxísticos e/ou naturais como xustificación, de xeito que acoutan a Ribeira Sacra en base a aspectos sectoriais (Figura 3). Abranguen un máximo de 23 concellos distintos (cun polígono máximo resultante de 2.843 km<sup>2</sup>), o 60% do global anterior. A delimitación máis ampla, a DO, non chega aos 900 km<sup>2</sup>, o cal representa un terzo da área de estudo da proposta de BIC. A máis cativa de todas é a AEIP Canón do Miño, con tan só 37,3 km<sup>2</sup>.

Neste grupo a división provincial desaparece. No entanto, en ocasións, prodúcese unha diferenciación entre o ámbito pertencente ao río Miño e ao río Sil.

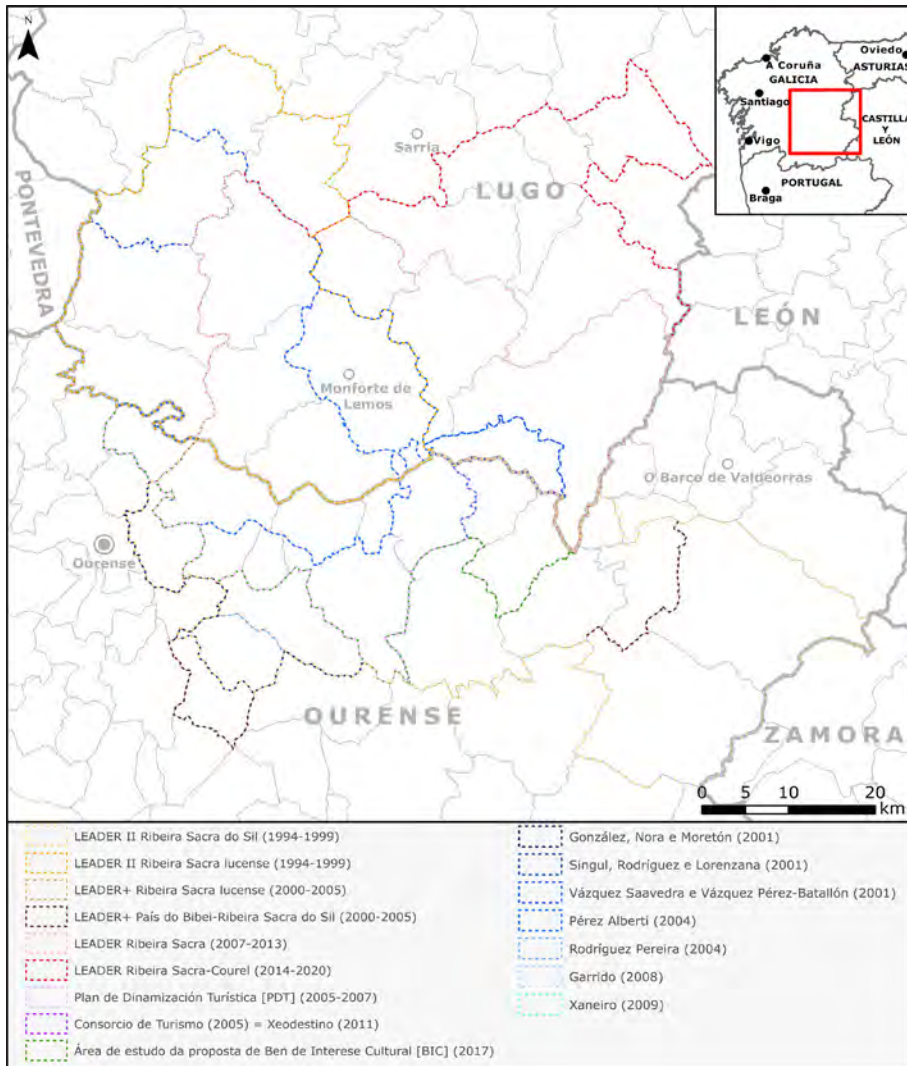
A diferenza das incluídas no apartado 4.1, estas delimitacións adoitan achegar os criterios seguidos para estableceren os seus límites. Unha mostra disto é Pérez Alberti (2015), quen entende que a Ribeira Sacra, exclusivamente, debe cingirse a aquel territorio que contén canóns e bocaribeiras (os terreos situados entre as ribeiras e as montañas, en concepto «inventado» polo xeógrafo Otero Pedrayo).

#### 5. *Discusión e conclusión*

A observación dos mapas contidos nas Figuras 2 e 3 lembra a «ansiedade cartográfica» de Painter (2008), pois evidencian a vontade (necesidade?) de fixar límites para rexións presente na nosa sociedade. Se superpormos todos eles, infírese unha absoluta incoherencia xeográfica, o cal dificulta arreo a asunción dunha forma territorial estábel e partillada, primeiro chanzo do modelo de Paasi (1986). Interpretamos dúas grandes dinámicas nesta teima delimitadora.

A primeira é política: o mapa municipal é a base (cada concello ten, obviamente, cadansúa alcaldía) e persiste a fenda interprovincial (primeira columna da Figura 2); o xogo de actores aí privilexia as correlacións de forzas entre poderes políticos diversos. As segundas delimitacións (Figura 3) responden a outras lóxicas de carácter máis técnico, mesmo presentadas como «asépticas», decididas desde a distancia: nos dez casos son perímetros non delimitados polas autoridades locais e establecidos a través de distintas instancias administrativas da Xunta de Galicia.

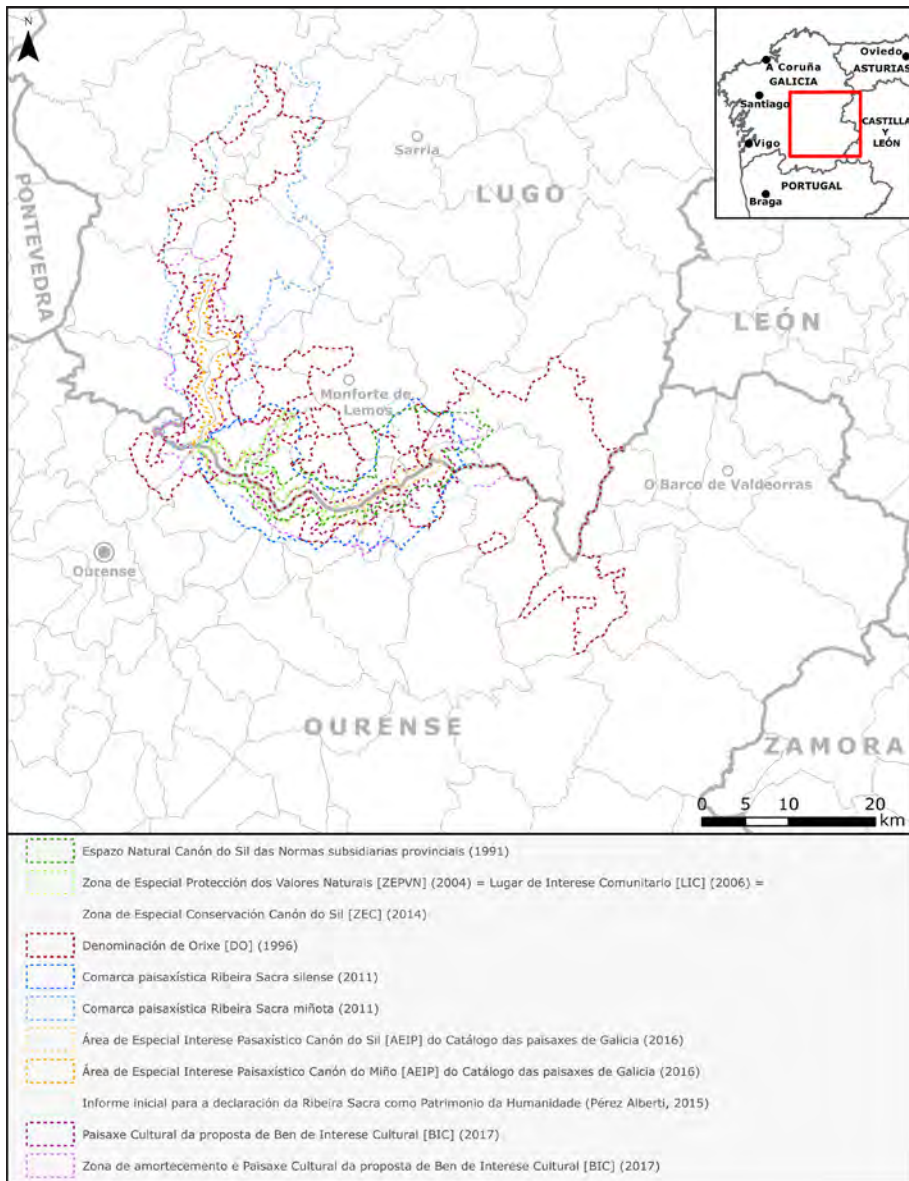
Figura 2. Delimitacións abranguentas da Ribeira Sacra. Fonte: os traballos representados.



Profundando nesta interpretación, nas primeiras evidénciase a procura dunha marca «beneficiosa» para a zona, á cal se lle atribúe unha imaxe positiva, útil a efectos

promocionais e de captación de recursos. Neses casos os Concellos arelan incluírse no perímetro, polo xeral mediante fórmulas consorciais (PDT de 2005-2007, xeodestino) ou asociativas (LEADER), que non representan restricións. Ninguén quere quedar fóra deles. Tamén a profusión de guías turísticas e obras máis ou menos académicas reflectida na Figura 2 (segunda columna) participa desta lóxica.

Figura 3. Delimitacións reducidas da Ribeira Sacra. Fonte: os traballos representados.



En troques, na Figura 3 emerxe unha rexionalización regulamentista: os perímetros equivalen a prohibicións diversas, o cal produce menos adhesións. Detéctanse resistencias a pertencer a estas segundas delimitacións. A comparación coas primeiras manifesta unha contradición: para aproveitarse da paisaxe, máximo entusiasmo; para protexela, esfúmanse as complicidades. Isto evidénciase co entendemento da Ribeira Sacra como *paisaxe natural*, é dicir, como espazo natural (protexido) desde o punto de vista institucional. A primeira declaración, de 1991, delimita un ámbito reducido. Unha década logo, redúcese e desprázase máis cara ao oeste, de xeito que a aprobación do espazo natural «efectivo» deixa fóra os viñedos (Figura 3 e 4a).

A abordaxe da Ribeira Sacra (e/ou Canón/s do Sil/Miño) como *paisaxe natural* semella territorialmente selectiva e bloqueada: desde a súa fixación como ZEPVN en 2004 só fixo que reiterarse o mesmo perímetro territorial, como LIC en 2006 e como ZEC en 2014 (Figura 3). No entanto, o seu entendemento como *paisaxe cultural* semella máis difuso e variábel. De aí a ambigüidade coa que xoga a páxina por excelencia da zona na rede —<http://www.ribeirasacra.org/> (consultada o 20/1/2018)—, que dá acceso a subpáxinas distintas, con cadansúas delimitacións: unha abrangente (Consortio de Turismo, Figura 2) e outra reducida (DO, Figura 3).

Desde Sauer (1925) e a tradición vidaliana (García Álvarez, 2006; Lencioni, 2009; Lataza, Lozano e Mata, 2017; Paül, 2017), *rexión* e *paisaxe cultural* conforman unha ecuación territorial de límites difusos. Isto reflíctese na bibliografía cartografada na segunda columna da Figura 2, a maior parte da cal, nun *totum revolutum*, refírese a mosteiros, abas e ríos que xeran unha paisaxe «única». Porén, cada autor achega un mapa distinto, o que responde de cheo á crítica de Lacoste (1976) respecto da xeografía rexional clásica: as rexións resultantes son múltiples mesmo con idénticos criterios.

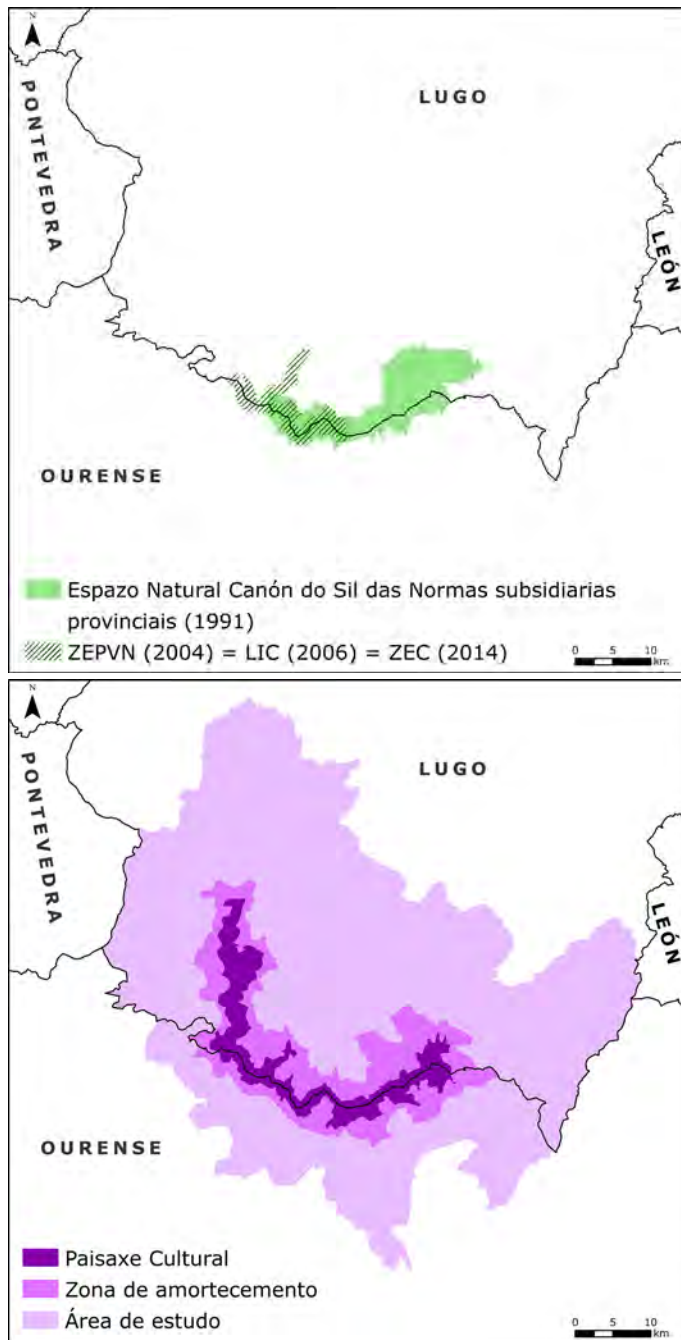
Cando esa ecuación indeterminada debe resolverse a efectos protectores, é dicir, ao converterse unha *paisaxe cultural* en *rexión* oficial «claramente definida» ante a UNESCO, o asunto devén espiñento. De aí que, desde a formulación da candidatura «tentativa» en 1996, até a súa primeira delimitación operativa (Pérez Alberti, 2015), pasaron 20 anos de indefinición territorial. De feito, na protección das paisaxes, a vía *cultural* resulta tortuosa, nomeadamente cando se trata dun espazo agrario (Silva, 2009; Gómez Mendoza, 2013); por iso tense privilexiado, aquí e alén, o enfoque *natural*.

A perspectiva aberta co estudo do BIC de 2017 (Figuras 2, 3 e 4b) é distinta: pártese dunha «área de estudo» moi ampla, mais cínguese o que será a *paisaxe cultural* en dous perímetros (o estrito e a zona de amortecemento). Seméllase querer contemplar, polo tanto, tanto a escala abrangente como a reducida. Porén, está por ver se a mera delimitación acada as outras dimensións do modelo de Paasi (1986) para converterse nunha rexión recoñecida, alén da forma territorial: símbolos partillados (a paisaxe?, cal?), as institucións (que gobernanza para un territorio de tres escalas e cunha xeometría de actores tan complexa como a expresada na Figura 2?) e, desde logo, que se dea xerado unha identidade e unha consciencia de pertenza territorial. Só así, talvez, a Ribeira Sacra estará «très bien délimitée géographiquement».

#### *Agradecementos*

Ao José Luis Álvarez, polas chaves, sempre atinadas, partilladas nas frecuentes visitas á zona.

Figura 4. Dúas cartografías para a discusión: (4a) Evolución da Ribeira Sacra como paisaxe natural protexida; (4b) Os tres perímetros da proposta de BIC (2017). Fonte: Figuras 2 e 3.



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## 37. Displaced Ruralities and the “Grim Realities” of Rural Gentrification

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### *1. Introduction*

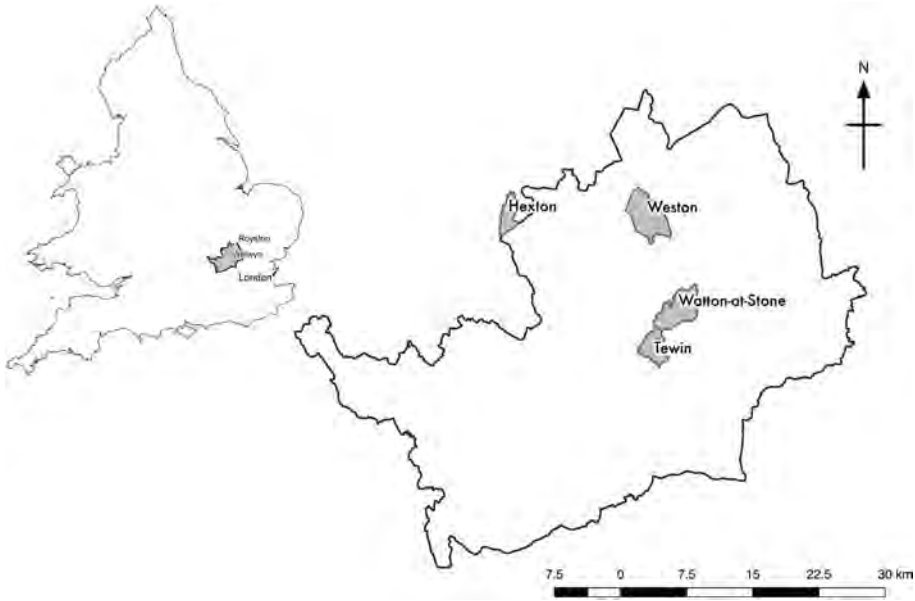
Idyllic conceptions of rurality have figured prominently in accounts of rural gentrification, with Key (2014: 251), for example, arguing that idyllic rural imagery has “contributed to the gentrification of much of rural Britain”. He, like Halfacree (2011), stresses how idyllic notions of rurality may act as a motivation for migrational movement, although Halfacree (2011: 619) notes both how these may also have “a very problematic connection to ‘actually existing’ twenty-first century rurality” and may act subsequent to the point of migration to establish points of connections to “a more ‘natural’, grounded ‘outside’” that offers “an alternative expression of the everyday to that encapsulated by urban capitalist life” (Halfacree, 2011: 60 — see also Halfacree and Rivera, 2012; Phillips, 2014). Gallent (2011: 612), on the other hand, emphasises connections between rural idylls and processes of exclusion and enclosure, arguing that the experience of the rural idylls “by those with money” and “who are able to exercise political power through local and parish councils” leads to a NIMBYism whereby rural gentrifiers act to raise “a metaphorical drawbridge against those who might introduce change, either through development or their mere presence”.

In this paper we seek to explore connections between idyllic and experiential constructions of rurality and processes of rural gentrification, focusing in particular on their connections to some of the “grim realities” of rural gentrification as highlighted by Gallent (2011). In particular, the paper will focus on processes of displacement, which have been viewed as a critical theoretical and political constituent of the concept of gentrification (e.g. Slater, 2006, 2008), although arguably has been rather neglected in rural gentrification studies, which have often tended to focus on processes of middle-class in-migration and transformations in rural housing stock. In doing this, we will draw upon research we have been conducting in rural Hertfordshire as part of an international comparative study of rural gentrification.

Hertfordshire was chosen to constitute one of the study areas in this research project because it was identified as an area experiencing middle-class in-migration and working-class “displacement” in the early 1960s, when the sociologist Ray Pahl undertook

research in four villages in this English county (see Figure 1 and Pahl, 1964, 1965b, 1995a, 2008b).

Figure 1. The Hertfordshire villages studied by Pahl. Source: UK Data Service dataset under UK Open Government License ©Crown copyright database right 2013.



Although Pahl did not use the term rural gentrification in his work, and in some of his work appears quite hostile to the concept of gentrification (e.g. Pahl, 2008a), his study of Hertfordshire villages is widely seen as having laid the foundations for studies of rural gentrification that emerged 20 to 30 years later. Paris (2008: 299) for example, has argued that Pahl's (1965b) study of *Urbs in Rure* described the "processes of neighbourhood displacement, known as gentrification", detailing "the bringing of urban people and incomes into what had been rural settlements". Given this, it appeared useful to return to Hertfordshire to investigate whether gentrification processes were still observable in these villages and if so, had there had been transformations in how they were operating over five decades later. In this paper, we will focus specifically on issues of idyllic representations and displacement.

## 2. Theoretical Insights

Pahl's study of Hertfordshire villages can be seen to not only to have acted to provide a basis for later use of the concept of rural gentrification through its emphasis on the arrival of middle-class residents into rural areas in proximity to London, but also have promoted ideas of the rural idyll, particularly via his notion of "villages of the mind". Pahl suggested that this was a mental imagery of rural life held by middle-class people who "come into rural areas in search of a meaningful community and [...] try to get the cosiness of village



life, without suffering any of the deprivations, and while maintaining a whole range of contacts outside” (Pahl, 1964: 9). He suggests this ‘village in the mind’ stands in contrast with the views of working class residents, who he argued were experientially immersed in the deprivations of rural life and a localised environment.

Subsequently Pahl came to re-evaluate aspects of his arguments, suggesting that he had “cultural affinities with the middle-class newcomers” (Pahl, 2008b: 627), which meant he had his own “community in the mind” (Pahl, 2008b: 625) when examining the villages of Hertfordshire. The result, he reflected, was that he had failed to grasp many of the changes that were occurring in the lives of rural working-class residents at the time of his initial study. Savage (2010) has identified Pahl as being a key exponent of a “technical modernism” that was infusing not only the conduct of social science but the class structure of industrial capitalist countries more generally through the emergence of a technocratic and managerial middle class. As such, it may therefore be possible to situate Pahl’s comments about his cultural affinities within a broader spatial and historical conjuncture in which the rural gentrification of Hertfordshire was also being constituted. His account of the middle-class migrants in the villages of Hertfordshire, for instance, highlights the arrival of a mobile “salaried” of middle class industrial managers and as well as professionals.

Clearly, the social composition of middle class residents may have significantly changed since Pahl’s research: as discussed in Phillips and Smith (2018), work on gentrification and class analysis has highlighted the emergence of a range of other middle classes, including so-called “super-gentrifiers” with very high levels of economic capital, and marginal and counter-cultural gentrifiers who may have low levels of economic capital but higher levels of cultural capital. A key aim of our research project is to seek to detail the range of gentrifiers that may be occupying rural spaces.

The presence of a range of gentrifiers raises important questions about displacement, as it may be seen to imply that these new groups will have come to occupy residential spaces previously occupied by working-class residents, or alternatively it may be that these new gentrifiers have displaced earlier gentrifiers. It is further possible that these gentrifiers have come to occupy new buildings, which raises questions about whether in such circumstances there is actually any displacement in operation, and, thereby, in some people’s minds, whether the term gentrification is actually appropriate to characterise the situation (for urban equivalents, see Boddy, 2007). Indeed, the two previous options also raise questions about the significance of gentrification as a concept: does gentrification cease to have any significance in understanding areas “where entire tracts have been transformed into middle-class neighbourhoods” (Davidson, 2011: 1993) and does intra middle-class displacement merit the same political concern as middle-working class displacements?

To address such issues, we argue, it is important to pay rather more theoretical attention to conceptualising displacement than has been done hitherto. To initiate such reflections, we make use of the work of Marcuse (1985) and his differentiation of four forms of displacement, namely:

1. “direct last-resident displacement”;
2. “direct chain displacement”;
3. “exclusionary displacement”; and

#### 4. “displacement pressure”.

The first form of displacement occurs through combinations of physical force, material neglect and economic pricing, which lead to a resident relinquishing access to a building or area of land, which then becomes appropriated for gentrification. The cessation of rental and tied-housing, as well as sale of properties and land for conversion or construction by gentrifiers or gentrifying developers can be viewed illustrative of the presence of this form of displacement. Marcuse argues, however, that displacement can occur across a series of residents, with several residents leaving prior to the departure of the final non-gentrifier resident. An important variant of this form of displacement is the off-spring of contemporary rural residents who, feeling that they will never be able to access housing in these localities, move away from their parents’ home in search of more affordable localities. Hence, there is displacement even whilst their parents remain in their home. Moreover, while in villages experiencing such chain displacement there may be a continuing “working class” presence for a long time, this is not being reproduced into the future. This connects to the third form of displacement, with exclusionary displacement occurring the gentrification of properties acts to prevent the replacement of non-gentrifier householders by other non-gentrifier households. This can occur through non-gentrifier households being unable to afford the increased prices or rents of gentrified properties or because these properties do not suit their needs and tastes. There may even, in some instances, not be any direct displacement but there is exclusion of in-migration by certain social groups. The final form of displacement identified by Marcuse occurs through the changing character of gentrified place, which results in these locations becoming “less and less liveable” (Marcuse, 1985: 206) for a group of existing residents. This decline in liveability may be quite material in form, such as, for instance, the loss of bus services that allow rural residents to get into work, or access retail and welfare services. It may, however, also involve more experiential and affective dimensions, whereby people come to feel that they do not belong to a place: or, as Davidson and Lees (2010: 403, original emphasis), put it, attention needs to be given to the senses of place within the notion of “displacement”.

This focus on the experiential and affective dimensions of place opens up connections to notions of idyllic, and indeed non-idyllic, conceptions of rurality and Pahl’s differentiation of “villages of the mind”. Pahl’s account of Hertfordshire villages presents an image of clear differentiation between the incoming middle-class and working class locals, a dualism, which as noted, he later questioned (Pahl, 2008b). With a range of middle, and indeed working class, groups co-present in the village, one might expect complex forms of displacement pressure to exist within contemporary villages.

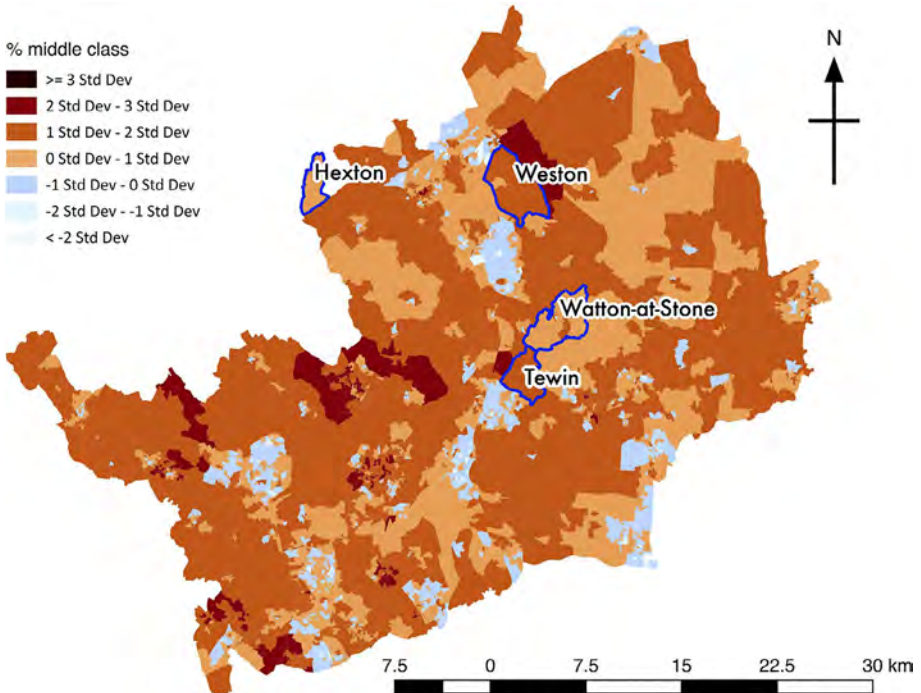
### 3. *Methodological Considerations*

This paper makes use of a questionnaire survey that have been carried out in three of the villages studied by Pahl, as well as an analysis of the original questionnaire surveys conducted by Pahl. The new questionnaire involved an extensive set of open and closed questions, and were audio recorded and the responses to open questions then transcribed prior to analysis within NVivo. Additionally, the paper makes use of a Census based analysis of gentrification and an analysis of planning applications.

#### 4. Results

Analysis is still on-going, but our Census analysis and questionnaire survey have both indicated the on-going presence of rural gentrification in the three Hertfordshire villages (see Figure 2), with the industrial and managerial middle-class still forming a significant constituent of the population in rural Hertfordshire.

*Figure 2. Middle class predominance in Hertfordshire. Source: 2011 Census aggregate data and digitise boundary data from the UK Data Service Census Support (Office for National Statistics).*



It is clear that our questionnaire survey recorded the presence of both idyllic representations of rurality and processes of displacement associated with gentrification. The significance of transformations in landownership was clearly evidenced across all three villages, although distinct trajectories of change were evident. In one village, there was clear evidence of the operation of direct processes of displacement through rental increases, although as yet these appear not translated extensively into processes of rural gentrification. This is despite the village exhibiting many of the features associated with idyllic conceptions of rurality. In the two other villages, processes of displacement and gentrification are clearly evidenced, ranging across each of the forms identified by Marcuse. The role of these in contesting idyllic conceptions of gentrification is highlighted, along with the continuing significance of idyllic notions of rurality in contesting processes of gentrification.

### 5. Discussion and Conclusion

In this paper we explore connections between idyllic constructions of rurality and processes of rural gentrification, but seek to connect these with a conceptualisation of processes of displacement. Whilst displacement has been viewed as amongst gentrification's definitive features, it has remained under-examined in the literature on rural gentrification. This lack of attention is significant, not least because the absence of displacement has been viewed as signalling the inappropriateness of applying gentrification to particular contexts, including the countryside (see Halfacree, 2018). In this paper we have demonstrated its presence even amongst the settlements of rural Hertfordshire where notions of an idyllic village in the mind have been long identified, and detailed their connection to long established and emergent forms of rural gentrification including super-gentrification.

### Acknowledgements

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### 38. Vinculaciones materiales e inmateriales en el paisaje de una comunidad indígena en el noroeste de Argentina

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*Tangible and Intangible Relations in the Landscape of an Indigenous Community in Northwest Argentina*  
Discourses on sustainability follow different premises of development. As counterpart to the development discourse oriented on economic growth, Andean indigenous communities propose their worldview, often associated with the concept of *buen vivir*. In academic circles it is discussed as inspiring vision for sustainable land use and landscape resilience. We conducted an ethnographic study in the indigenous community of Nazareno, located in the North Argentinean Andes, to address the following questions: How does the indigenous worldview foster tangible and intangible values in the landscape? How does the community cope with changes? And what could be the global relevance of their way of living? We conclude that, the community holds on to intangible values they attribute to the ancestors and were intimately linked to the former landscape. These visions strengthen their dignity and sense of place; thus, it enhances landscape resilience.

#### 1. Introducción

Comunidades indígenas, especialmente de los Andes sudamericanos, proponen una forma de vida, que bajo el concepto del «buen vivir» marca un contraste con el de «bien-estar» (Van Hulst y Beling, 2014). El concepto andino del buen vivir se centra en la reciprocidad entre las comunidades humanas, naturales y espirituales (Boff, 2016) como contraposición al pensamiento de sostenibilidad desarrollista centrado en los avances tecnológicos (Acosta, 2015; Escobar, 2016). Ambas posiciones pueden entenderse como discursos de la relación hombre-entorno, que buscan reconciliarse en un mundo globalizado (Dryzek, 1998[2005]). Los discursos se interiorizan y sedimentan en la realidad cotidiana por medio del lenguaje (Berger y Luckmann, 1966[2013]) y determinan la percepción y la vivencia del paisaje. Así, desde una visión antropocéntrica el uso sostenible de la tierra puede interpretarse como la aplicación de tecnologías para incrementar la productividad y seguridad alimentaria en detrimento de la biodiversidad. Sin embargo, según Ingold (2011), las visiones indígenas no dividen entre el interior y exterior humano, de manera que dañar al ambiente no sería diferente a dañarse uno mismo. En este sentido, no entendemos al discurso como una entidad separada del ambiente material, sino nuestro concepto de paisaje está centrado en los vínculos de lo material e inmaterial, el discurso y la acción, la sociedad y el ambiente.

Este concepto nos lleva a investigar la comunidad indígena de Nazareno en el norte de Argentina, ubicada a 3000 metros de altura al este de la Sierra de Santa Victoria. Se trata de un sitio de alto valor paisajístico, por la belleza de sus serranías y debido al uso

tradicional de la tierra. Las prácticas agrícolas y formas de vida resultan en una variedad de campos de cultivo, pasturas, caminos, arboledas, pircas y asentamientos. El cultivo a diferentes niveles de altura da lugar a gran variedad de razas de maíz (Hilgert y Gil, 2005), que son utilizadas a lo largo del año para elaborar diferentes platos, para alimentar al ganado o en los ritos a la Madre Tierra (Ramos, Hilgert y Lambaré, 2013). En base a estas características, en el área de estudio el uso de la tierra, el paisaje y las formas de vida están estrechamente entrelazados. Puede decirse que el paisaje equivale al de la Quebrada de Humahuaca, ubicada al suroeste, del otro lado de la Sierra, y que forma parte del patrimonio cultural de la UNESCO desde el año 2003. La consecuencia de esta nominación fue la afluencia de un turismo masivo, que produjo la marginación de la población originaria que había dado lugar al paisaje cultural de la quebrada. Por este y otros motivos, la comunidad de Nazareno, que figura como comunidad indígena en el registro nacional argentino, desarrolló diferentes estrategias de protección de su identidad y de su territorio contra lo que considera una penetración cultural. Al mismo tiempo, en el pueblo mismo, la urbanización y la incorporación a los ciclos económicos externos son evidentes.

Ante este contexto de realidades dispares y el concepto de paisaje mencionado más arriba, nuestras preguntas de investigación se centran en: cómo el imaginario de pertenencia a una comunidad indígena andina genera vínculos materiales e inmateriales en el paisaje; cuáles son las estrategias locales en la incorporación de cambios; y qué relevancia global tiene la forma de vida estudiada. Se aplicaron metodologías etnográficas, siendo el núcleo de las mismas la observación participativa y las entrevistas recorriendo los alrededores del pueblo.

A continuación, el texto introduce diferentes conceptos teóricos de valores materiales e inmateriales del paisaje. En los capítulos siguientes profundizamos en la metodología aplicada y los resultados obtenidos. Finalizamos con una discusión sobre la aplicación del concepto de paisaje a nuestro estudio y a la vinculación entre los valores materiales e inmateriales locales y globales.

## 2. Consideraciones teóricas

Son numerosos los abordajes teóricos que proponen la integración de valores materiales e inmateriales. El concepto de los servicios ecosistémicos está inmerso en el discurso de la sostenibilidad. Su objetivo es relevar y equiparar los servicios que ofrece el ecosistema al bienestar humano. Además de los servicios de soporte, regulación y provisión, el concepto incluye servicios culturales, que define como: «nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences» (Millennium Ecosystem Assessment, 2005). Es decir, que combina categorías materiales con inmateriales. Sin embargo, a la hora de focalizar la interrelación entre la sociedad y su entorno se considera más apropiado el concepto de paisaje, dado que incluye perspectivas académicas más humanísticas (Termorshuizen y Opdam, 2009; Tengberg et al., 2012; Plieninger et al., 2014). A su vez, el ICOMOS se refiere a la relación íntima de un paisaje como: «Combined works of nature and humankind, they express a long and intimate relationship between peoples and their natural environment» (UNESCO-ICOMOS Documentation Centre, 2011: 5). El Convenio Europeo del Paisaje (CEP) le atribuye un carácter y entiende como paisaje a: «cualquier

parte del territorio tal como la percibe la población, cuyo carácter sea el resultado de la acción y la interacción de factores naturales y/o humanos» (Consejo de Europa, 2000).

El concepto de paisaje en que fundamentamos este trabajo focaliza dicho vínculo de lo material e inmaterial, de la armonización entre el medio y el humano (Janowski e Ingold, 2016: 10-11). Interrogamos la percepción del paisaje de una comunidad indígena a través de sus narraciones sobre la cosmovisión andina de reciprocidad entre las comunidades humanas, naturales y espirituales (Pliego, 2003[2006]).

### 3. Consideraciones metodológicas

La investigación tuvo lugar durante tres visitas al área de estudio durante los años 2015 a 2017 aplicándose metodologías etnográficas. Participamos de quehaceres cotidianos, festividades, misas y talleres; y realizamos entrevistas en movimiento (*walking interviews*), que, al recorrer el lugar con sus caminos y estímulos sensoriales, favorecen la profundidad del diálogo, la perspectiva compartida, el empoderamiento del entrevistado y la narración (Kusenbach, 2003; Carpiano, 2009). Dado que para nuestro trabajo tiene gran importancia el plano emocional, durante la posterior transcripción se resaltaron los pasajes prosódicos (Bänziger y Scherer, 2005; Wilson y Wharton, 2006). El procesamiento del material relevado se realizó principalmente siguiendo los lineamientos de la teoría fundamentada (Charmaz, 2006[2014]).

Antes de llegar a la comunidad fue importante haber solicitado autorización al obispo de la prelatura de Humahuaca y al cura de la comunidad. Participaron de las entrevistas personas de diferentes instituciones, edades y sexo. Todos se identificaron como indígenas y la mayoría con un presente o pasado inminente campesino. Nuestra presencia fue bien recibida y fuimos invitados a tres entrevistas de la radio local. A su vez, nuestro rol como investigadores ajenos al lugar dio lugar a extensas explicaciones, y también a silencios, que son parte de la comunicación (Ephratt, 2011).

### 4. Resultados

Las entrevistas, narraciones, observaciones y notas de campo fueron integradas en un análisis cualitativo. Se dieron diferentes colores a los códigos, asociándolos a dimensiones del hacer, pensar y sentir para profundizar la interpretación.

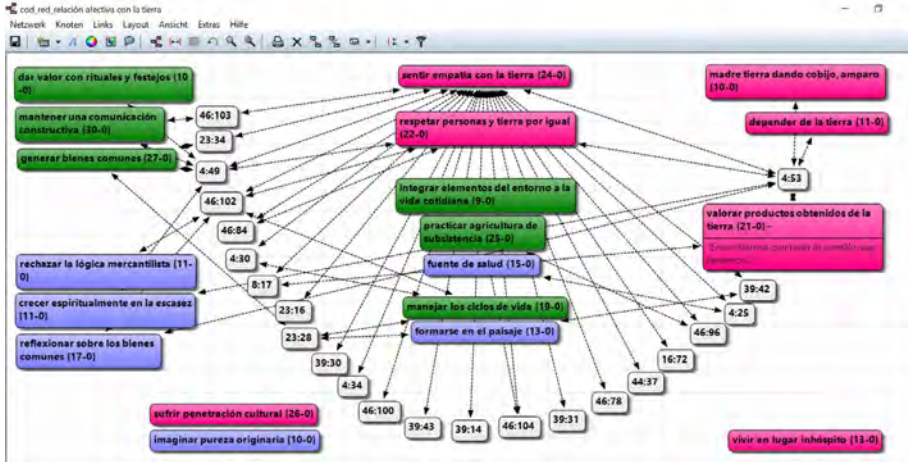
En este apartado detallaremos, en primer lugar, cómo describieron los entrevistados sus vínculos en la comunidad y con la madre tierra. Luego presentamos los cambios más relevantes percibidos por la comunidad (penetración cultural, urbanización y abandono de los campos), así como cuáles son sus estrategias de adaptación para mantener la coherencia del paisaje al que pertenece.

Para saber vivir en este ambiente de montaña inhóspito los entrevistados se guían por la cosmovisión que dicen han heredado de sus ancestros. En las narraciones y el imaginario ellos representan la sabiduría; el interpretar a la madre tierra (Pachamama); el dominio de las prácticas agrícolas y artesanales tradicionales; el respeto por todos los seres; y una gran hospitalidad. Esto les representa el núcleo de su identidad indígena, que les permite convivir con dignidad dentro de una comunidad de valores compartidos. Por ejemplo, la capacidad de saber cultivar la tierra de montaña sería inútil en la ciudad, pero en la comunidad es la reafirmación de identidad y pertenencia al lugar. Este imaginario es, además,



central e indispensable para ser reconocidos como comunidad indígena y para hacer oír sus reclamos de propiedad de las tierras.

Figura 1. Análisis cualitativo de las transcripciones de las entrevistas en la vista en red de códigos en atlas.ti. Fuente: elaboración propia.



Un tema central de las narraciones fue la reciprocidad con la madre tierra. Ella ofrece cobijo, alimento y, a su vez, impone reglas y tiempos. Esta relación del dar y recibir es particularmente importante para los pequeños agricultores. Cultivan la tierra prácticamente para el autoconsumo y no utilizan maquinarias agrícolas ni agroquímicos. La fertilidad del suelo rocoso no sería tal sin el aporte de las deyecciones animales, recogidas en el cerro. También es existencial un clima favorable. Por eso la comunidad les da importancia a los ritos cotidianos, como el agradecimiento de «chayar» que consiste en convidar agua a la madre tierra, o bien el colocar piedras en las «apachetas» ubicadas en las abras para pedir protección para el camino. A esta interacción, afectuosa y dedicada, se suma un diálogo, silencioso y de profunda observación, con la madre tierra.

Si bien sus biografías no siempre transcurrieron en Nazareno —por ejemplo, hay migración temporal por trabajo o para la formación, y frecuente para comprar mercaderías—, las personas entrevistadas, que son quienes permanecen en el lugar, perciben a la ciudad como un lugar peligroso, ruidoso y a veces denigrante. El turismo masivo, como el que ocurrió en los pueblos vecinos de Iruya o Tilcara, para muchos representa una amenaza de penetración cultural. A diferencia de los peligros presentes en la montaña que se evitan con ritos, observación y experiencia, parece no haber herramientas —más que aislarse en la alta montaña— para protegerse de lo que sienten y experimentaron como atropello a sus costumbres por parte de un turismo insostenible. Esta experiencia refuerza el vínculo con la madre tierra, que ofrece un espacio generoso donde vivir en dignidad.

Por otra parte, el pueblo de Nazareno presenta claros síntomas de urbanización. Entonces, paralelamente a las formas tradicionales, se adoptan hábitos de uso del tiempo y de consumo que manifiestan una ruptura con el entorno y las formas de vivir y pensar asociadas a la cosmovisión de los ancestros, así como con la exigente labor agrícola y

ganadera en este territorio extenso y empinado. Esto conduce a la sobreexplotación de los recursos en los alrededores del pueblo y a la acumulación de residuos domiciliarios. Es decir, que en la interacción con el paisaje se observa la simultaneidad de diferentes formas de vida, con sus respectivos valores materiales e inmateriales. Ante esta situación la comunidad busca reafirmar y realimentar su identidad indígena adquiriendo conocimientos teórico-prácticos en instituciones externas especializadas. A su vez, en Nazarenos mismo, la comunidad instauró una carrera de formación docente, para que dichos conocimientos sean transmitidos a niñas, niños y jóvenes, como por ejemplo, el idioma quechua. Y también se renuevan los saberes sobre cultivos o trabajos artesanales para que sigan siendo coherentes los ciclos de vida de la madre tierra con el ritmo cotidiano y de ritos practicados por la comunidad.

No por último, preocupa la migración y el abandono de los campos. Algunos entrevistados nos dicen que les causa dolor ver campos sin cultivar. Esto no solo representa una pérdida económica, sino una debilitación del carácter del paisaje que hace a la identidad indígena local, tal como lo describe el CEP. Forma parte de la identidad indígena ser pequeño agricultor, y es existencial, para hacer oír sus reclamos de propiedad de las tierras, que la incorporación de cambios no afecte su reconocimiento como comunidad indígena, según lo prescribe la normativa sobre pueblos indígenas —véase, a tal efecto, la información disponible en: <https://www.argentina.gob.ar/derechoshumanos/inai/normativa> (consulta el 22/1/2018)—. Las familias campesinas que siguen en actividad cultivan principalmente razas de maíz locales, además de una gran variedad de legumbres, papa, oca, quinoa, hierbas, flores y otros cultivos. El ganado se cría en trashumancia. Para el manejo del agua de riego a través de las acequias la comunidad estableció reglas de uso que va renovando según las necesidades comunes. También funciona en forma coordinada la venta de los productos remanentes en ferias locales, o bien el intercambio en ferias de trueque.

##### *5. Discusión y conclusión*

Según resulta de las entrevistas, la comunidad no se proyecta en una sola forma de vida, ni tiene una concepción uniforme de su vinculación con la Pachamama. Sin embargo, aún es evidente, a través de sus instituciones, el esfuerzo de mantener una identidad indígena en común, guiada por una cosmovisión atribuida a los ancestros y realimentada por corrientes teológicas y académicas externas. Podemos destacar, que las formas de vida aún observadas en la comunidad de Nazareno responden a expectativas de sostenibilidad globales asociadas a una transformación de la sociedad hacia una mayor austeridad, eficiencia energética, moderación, creatividad, desaceleración y conciencia. Por otro lado, atribuir(se) una identidad indígena única (Sen, 2007), vivida localmente e imaginada desde la academia o el turismo, podría limitar el poder de adaptación de la comunidad a las dinámicas divergentes de opciones de vida y de concepciones de la madre tierra, así como también a los cambios asociados a la globalización.

Actualmente, para la comunidad, vivir y recuperar la cosmovisión andina es reafirmar la identidad indígena y ayuda a asumir los riesgos y esfuerzos físicos de vivir y producir en la alta montaña. A su vez, es una manera de protegerse de lo que se percibe como penetración cultural y de los cambios de hábitos asociados a la propia urbanización. De hecho, si

bien de forma atenuada, continúan practicándose los ritos, que contribuyen a fortalecer la identidad (Kulemeyer, 2011) así como el diálogo con la madre tierra, para mantener vivo el vínculo, para agradecer y pedir protección (Göbel, 2013). Sin embargo, en los colegios es mucho más el tiempo que ocupa la educación formal —que muchos asumen promete una mejor salida laboral—. Esta transmisión de conocimientos no es equivalente a la que practicaban sus ancestros, que aprendían del entorno con la mente y el cuerpo (Ingold, 2002). Entonces se debilitan capacidades íntimamente asociadas al paisaje, y, a su vez, los ritos van perdiendo, imperceptiblemente, su fundamento. En cuanto al abandono de los campos, el objetivo de mantener e innovar las prácticas tradicionales y de trabajar mancomunadamente responden, a nuestro criterio, al movimiento global de la agroecología (Altieri y Toledo, 2011; Wezel et al., 2015), en este caso marcado por el mensaje latinoamericano de soberanía alimentaria y autodeterminación.

El entramado material e inmaterial del paisaje generado por la forma de vida y la cosmovisión practicadas en Nazareno puede entenderse como un bien común global, tal como lo reconociera la UNESCO cuando nominó a la Quebrada de Humahuaca como paisaje cultural. Por ejemplo, las prácticas de cultivo en la alta montaña dan lugar a una gran agrobiodiversidad. La variedad genética de razas de maíz ha sido catalogada por su interés para la ciencia (Cámara Hernández et al., 2012) y porque su reproducción *ex situ* es importante para la seguridad alimentaria (Graddy, 2013). Los saberes locales sobre el uso y la toxicidad de las hierbas están siendo relevados en estudios etnobotánicos (Quiroga Mendiola, 2004; Vignale y Pochettino, 2009; Califano y Echazú, 2013). También pertenece al patrimonio cultural la cocina artesanal local que hace un uso estacional y ritual de las variedades de maíz (Cámara Hernández y Cabezas, 2007) y se suma a movimientos globales como el *slow food* (Arzeno y Troncoso, 2012).

El cuidado de esta forma de vida es lo que nosotros entendemos como los vínculos inmateriales y materiales en el paisaje. Esta perspectiva complementa el marco teórico de los servicios ecosistémicos culturales mencionados en la introducción, dado que orienta la mirada hacia la reciprocidad afectiva entre el bienestar de la madre tierra y el de la comunidad. Sentirse bien en la vinculación armoniosa con un lugar genera sentido de pertenencia y hace a la resiliencia socio-ecológica de un paisaje (Plieninger et al., 2014). Recientemente, numerosos trabajos redescubren estos aspectos relacionales reconociendo su relevancia para la ciencia y para los objetivos de sostenibilidad (Ives et al., 2017). Chan et al. (2016) destacan, que las visiones de reciprocidad que integran el buen vivir, y que se asocian a las comunidades indígenas andinas, están presentes en muchas sociedades del mundo y tienen una larga tradición filosófica. Nuestro trabajo aporta una perspectiva contextualizada de la relevancia del marco discursivo y de la realidad cotidiana, así como de la relevancia del afecto y la dedicación, en la interacción con la madre tierra para el paisaje generado en una comunidad del noroeste argentino.

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### **39. La experiencia del paisaje del Camino de Santiago como proceso constructivo de imaginario alternativo del territorio**

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#### *Experience of the Landscape of Saint James's Way as a Building Process of Alternative Imaginary of Territory*

The objective of this presentation is to identify alternative imaginaries of territory, which can work as a bridge between urban agents' idealised view regarding rural areas and the perception of the people living inside those spaces. For that purpose, we focussed on the landscape of Saint James's Way, especially in its Galician section. The result of the field research we conducted in September 2017 suggests that, when we understand the landscape of the Way as pilgrims' collective imaginary, it does not reflect faithfully the material aspects of the natural environment found along the Way, nor of the local people's life and livelihoods. However, it is not either a simple idealized image of rurality, invented by urban agents. The landscape of the Way is an imaginary achieved through collective experience of the pilgrims which, carrying different cultural backgrounds, come into direct contact with the territory connected by that way. It could therefore be an alternative view between the perception rooted among the local population and the idyllic image diffused by outside agents.

#### *1. Introducción*

En las últimas décadas, el espacio rural ha sido objeto de una mirada cada vez más intensa de agentes externos, perteneciente fundamentalmente al ámbito urbano. Medios de comunicación y publicidad comercial de diversa índole han difundido imágenes del espacio rural cargadas de nostalgia, hasta el punto de que éstas acaban calando en la percepción de lo rural entre sectores amplios de la población urbana. La discrepancia entre la mirada del urbanita hacia la ruralidad y la percepción que tiene de la misma la población local ha pasado a ser un factor potencial e incluso real de conflicto.

La presente comunicación tiene como objetivo fundamental identificar aquellos procesos en los que están surgiendo imaginarios alternativos del territorio, es decir, una tercera vía que puede servir de puente entre la percepción urbana y la rural de lo rural. Para ello, nos enfocamos en el paisaje del Camino de Santiago a su paso por el interior de Galicia. La particularidad del Camino es que el paisaje como imagen compartida se construye fundamentalmente a través de la experiencia directa de los propios peregrinos, en su mayoría de procedencia urbana. Partiendo de estas consideraciones, trataremos de reconocer imágenes del paisaje del Camino que se van generando en la memoria de los peregrinos. Una vez recogida una muestra de imágenes, haremos nuestra valoración sobre si esas percepciones construyen o tienen el potencial de construir un imaginario alternativo del territorio, en el punto de contacto entre la visión externa y la interna.

## 2. Consideraciones teóricas

Tres tipos de trabajos precedentes constituyen para nosotros la referencia básica para configurar el diseño metodológico de nuestro trabajo: 1) la experiencia en la construcción del paisaje; 2) el paisaje del Camino como espacio vivido; y 3) aproximación al paisaje del Camino de Santiago.

La obra clásica de Tuan (1977) proporciona el fundamento teórico de carácter fenomenológico para entender la construcción del paisaje desde la perspectiva de la experiencia humana. Entre las obras teóricas que sentaron la base de la fenomenología, la contribución del filósofo austriaco Husserl desarrolla ampliamente el concepto de intersubjetividad, concepto clave para tratar el paisaje como constructo social. Nogué (2007) es una aplicación de ese tipo de enfoque a diferentes contextos tanto sociales como espaciales del paisaje.

Respecto al paisaje del camino, lo entendemos como un conjunto de escenarios encadenados, más que la configuración del propio camino como un elemento paisajístico. El concepto de *autoscape*, propuesto por el arquitecto norteamericano Venturi en su estudio sobre Las Vegas (Venturi, 1977), señala cómo la movilidad interviene en la construcción del paisaje. El enfoque propuesto por Venturi tiene una aplicación amplia a diferentes tipos de movilidad (Caballero, Domínguez y Zoido, 2016), incluso al viaje de peregrinos. Así, la antropóloga japonesa Doi (2015) desarrolla el concepto de *walkscape*, al entenderlo como una secuencia de escenarios que los peregrinos comparten. Desde la perspectiva cristiana, merece una atención especial la aportación de autores ingleses como Maddrell et al. (2015), que profundiza en la vivencia de sujetos humanos en movimiento, una experiencia espiritual facilitada por el paisaje como mediador de lo sagrado y lo secular.

Finalmente, por lo que respecta al propio Camino de Santiago, destacamos algunos trabajos que arrojaron luz sobre los motivos del viaje y el carácter multifacético de la experiencia del Camino (Seki, 2009; Lois y Lopez, 2012). Para Chemin (2011), la naturaleza polisémica del peregrinaje contemporáneo queda representada en la refundición entre las formas tradicionales del ritual religioso y la cultura de consumo moderna. En relación con el análisis e interpretación del paisaje del Camino, Armas (1996) y Sotelo, Sotelo y Sotelo (2016) son dignos de mención como aportaciones desde la geografía, además del *Catálogo das Paisaxes de Galicia* (Xunta de Galicia, 2016), de consulta obligatoria.

## 3. Consideraciones metodológicas

Hemos estructurado el trabajo en dos etapas básicas: a) estudio del paisaje del Camino como visibilidad y b) análisis de imágenes del Camino aportadas por peregrinos.

En el análisis del paisaje como visibilidad, hemos aplicado una metodología compuesta entre el SIG y el trabajo de campo. El Sistema de Información sobre Ocupación del Suelo de España (en adelante, SIOSE) nos ha permitido tener una primera aproximación sistemática al paisaje del Camino. Aunque los datos originales del SIOSE tienen una estructura compleja basada en la caracterización descriptiva de cada polígono de cobertura, a efectos de nuestro trabajo, hemos utilizado la representación simplificada, publicada por la Xunta de Galicia, la cual asigna un único tipo de cobertura para cada polígono.

A partir del análisis preliminar con datos del SIOSE, hemos acotado para el trabajo de campo un tramo concreto del camino francés, que se extiende de Palas de Rei a Arzúa. Entre las razones que justifican esta selección, destacamos la distancia de esta etapa que

alcanza los 28,8 km, una de las más largas de todo el camino. El hecho de que la mayoría de los peregrinos que acaban durmiendo en Arzúa inicien el recorrido del día entre Palas y Arzúa facilita la organización de nuestra segunda etapa de trabajo con entrevistas a peregrinos. En el trabajo de campo, llevado a cabo del 18 al 20 de septiembre de 2017, fuimos comprobando los elementos paisajísticos presentes a lo largo del Camino, tales como el uso del suelo, la vegetación, la explotación agrícola, la arquitectura popular o la ordenación del propio camino.

La segunda etapa del estudio, correspondiente a la recogida de imágenes del Camino, fue llevada a cabo mediante entrevistas personales a peregrinos. Tras la primera jornada, el 21 de septiembre, realizada en Melide, decidimos hacer las restantes entrevistas en Arzúa, para lo cual dedicamos tres jornadas, del 23 al 25. Hicimos todas las entrevistas personales en castellano o inglés, sin intérprete, tratando de mantener una distribución equilibrada entre los entrevistados en cuanto a la edad y el sexo. Otro de los criterios que tuvimos en cuenta es conseguir una muestra lo más variada posible en origen geográfico. Las preguntas comunes que guiaban la conversación se pueden dividir entre los siguientes bloques: el perfil básico del/de la entrevistado/a; el recorrido acabado; el motivo del viaje; y la percepción del paisaje del Camino, naturalmente con énfasis especial en este último aspecto. Como resultado, pudimos realizar satisfactoriamente un total de 22 entrevistas, de las cuales 6 fueron en Melide y las demás en Arzúa.

#### 4. Resultados

##### 4.1. Paisaje del Camino como visibilidad

La etapa Palas de Rei-Arzúa se extiende del extremo oeste de la provincia de Lugo a la parte oriental de la de A Coruña. Se engloba en la Gran Área Paisajística de Galicia Central, según el *Catálogo das Paisaxes de Galicia* aprobado en 2016 por la Xunta de Galicia. El trayecto, ligeramente ondulado, está situado entre la cota máxima de 560 m sobre el nivel del mar (Palas de Rei) y la mínima de 305 m (Rivadiso).

El tramo objeto de estudio se caracteriza por la transición de la zona boscosa de agricultura extensiva a la de explotación agroforestal con cierta intensidad. Dentro de este contexto general, fijamos 14 puntos de observación para la recogida de datos detallados, teniendo en cuenta las principales unidades de cobertura que habíamos identificado con el SIG. A continuación, presentamos un resumen muy breve del trabajo en cada uno de los puntos (entre paréntesis, cobertura dominante según el SIOSE):

- Palas de Rei (zonas urbanas): superposición de tejidos urbanos de épocas diferentes, con el Camino atravesando la carretera moderna en varios puntos;
- Carballeda (mixtura de especies arbóreas): predominancia del castaño y el roble, acompañado de otras especies como el abedul o el pino;
- San Xiao do Camiño (zonas urbanas): pequeño núcleo rural desarrollado en torno al cruceiro y la parroquia, con varias casas convertidas en albergue;
- O Mato (cultivos y prados): campos de maíz y prados, en medio de los cuales el Camino presenta aspecto de un corredor muy erosionado;
- O Leboreiro (zonas urbanas): pequeño núcleo caminero, con el pavimento rehabilitado para recuperar el Camino;



- Gándaras de Melide (matorral): predominancia del tojo en una zona inepta para el cultivo, condicionada por la presencia de minerales de cromo y níquel;
- Bosque de Furelos (mixtura de especies arbóreas): el castaño y el roble como las predominantes, con helechos formando el sotobosque;
- Furelos (zonas urbanas): núcleo emblemático al lado de un puente romano, recién rehabilitado y dotado de servicios para los peregrinos;
- Melide (zonas urbanas): la población más grande de la etapa con varios monumentos erigidos sobre un tejido urbano modificado;
- Santa María de Melide (mixtura de especies arbóreas): antigua plantación de eucaliptos abandonada, conviviendo con castaños y robles;
- Río Boente (matorral y especies arbóreas): zona bañada por el río, con el bosque ribereño de alisos, acompañado del abedul y el roble;
- A Castañeda (prados y cultivos): conjunto de explotaciones agrícolas de modesto tamaño, con vista amplia sobre campos de maíz;
- Rivadiso (cultivos y prados/zonas urbanas): antiguo hospital de peregrinos al lado de un puente romano, convertido en albergue público;
- Arzúa (zonas urbanas): cabecera comarcal con aspecto de un pueblo caminero, dotado de una oferta generosa de servicios para peregrinos.

En cada punto de observación, recogimos datos cualitativos mediante observación visual, fotografías y entrevistas breves a la población local. Como ejemplo, presentamos el punto 3: San Xiao do Camiño (Figura 1).

Figura 1. Paisaje de San Xiao do Camiño. Fuente: fotografías de K. Kamikawa (2019/2017); mapa elaborado a partir de datos del SIOSE publicados por la Xunta de Galicia: [mapas.xunta.gal](http://mapas.xunta.gal) (consulta el 29/12/2017).



San Xiao es un pueblo de tamaño modesto situado a 3,5 km de Palas. Entre una veintena de casas, algunas mantienen huertos para autoconsumo, aunque los espacios que se dedicaban a la cría de animales ya no cumplen su función original. Actualmente, hay dos albergues en funcionamiento, siendo uno de ellos ejemplo de rehabilitación de una casa tradicional, en este caso de cierta categoría social. El pueblo en su conjunto presenta una situación transitoria entre el mantenimiento de la vida campesina, el abandono progresivo y la rehabilitación para usos hoteleros.

#### 4.2. Imágenes del paisaje del Camino

En la segunda etapa del trabajo, hemos podido reunir una muestra de 22 peregrinos entre ambos sexos, con 14 nacionalidades diferentes (extracto en la Tabla 1). Una mitad de los entrevistados iniciaron su viaje de peregrino en algún punto de Galicia para caminar las últimas etapas hacia Santiago y, de la otra mitad, 7 partieron de Saint-Jean-Pied-de-Port, llegando a conocer el conjunto del camino francés. Sobre el motivo de la peregrinación, algunos aducen razones religiosas, mientras que otros hablan de motivos más personales como autosuperación, búsqueda de una nueva vida o interés por la naturaleza y la cultura de la zona. Este resultado concuerda con el hallazgo presentado por Chemin (2011), quien, a través de 56 entrevistas realizadas en distintas etapas del camino francés, demuestra cómo se interpenetran los motivos religiosos y los seculares, incluso dentro de la narrativa de un solo peregrino.

Tabla 1. Extracto del resultado de las entrevistas a peregrinos. Fuente: elaboración propia.

	Origen	Sexo / edad	Motivo	Percepción del paisaje del Camino
1	Burgos	F / 60	religioso	<ul style="list-style-type: none"> <li>• impresionante por robles y bellotas y campos de maíz;</li> <li>• tranquilo y bonito;</li> <li>• un camino bastante llano</li> </ul>
2	Sudáfrica	F / 30	jubilación voluntaria	<ul style="list-style-type: none"> <li>• todo verde;</li> <li>• una vida sencilla y tranquila;</li> <li>• relación íntima con otros peregrinos</li> </ul>
3	Irlanda	M / 60	jubilación, por tiempo libre	<ul style="list-style-type: none"> <li>• zona de bosque agradable y tranquilo, sin coches;</li> <li>• paisaje abierto, diferente de Irlanda</li> </ul>
4	Estados Unidos de América	M / 50	invitación de un amigo	<ul style="list-style-type: none"> <li>• enormes plantaciones de eucalipto, igual que en su país;</li> <li>• vínculo humano en la vida rural</li> </ul>
5	México	M / 50	voluntad propia	<ul style="list-style-type: none"> <li>• verde y bonito;</li> <li>• casas viejas</li> <li>• estilo de vida tranquilo, diferente de su país</li> </ul>

En cuanto a la percepción del paisaje del Camino, algunos elementos concretos se repiten en varios entrevistados. Así, la referencia al bosque con especies arbóreas fácilmente reconocibles como castaño o roble es lo que caracteriza la narración de los peregrinos sobre el entorno natural. A su vez, elementos arquitectónicos, tales como casas tradicionales, iglesias parroquiales, hórreos, cruceiros, o puentes de origen romano, son citados con

calificativos genéricos de viejo, de piedra antigua o simplemente bello, pero ninguno ha hablado de una sensación de deterioro o abandono. Con todo, lo más destacable de la percepción del territorio es la simpatía mostrada por los peregrinos con la vida rural, marcada por la tranquilidad, un estilo de vida sencillo y, sobre todo, una relación humana íntima que creen ver detrás del aspecto visible de las aldeas. En cambio, ninguno de los entrevistados hizo mención específica de la simbología estrictamente religiosa, probablemente por falta de sitios conocidos de referencia en el tramo escogido, a diferencia de lugares sagrados con una vista espectacular como Meteora o Subiaco, estudiados en profundidad por Maddrell et al. (2015). Dejamos para el siguiente y último apartado una interpretación algo más profunda sobre los resultados obtenidos en nuestro trabajo de campo.

##### 5. *Discusión y conclusión*

Al contrastar el paisaje del Camino como visibilidad con las imágenes del Camino aportadas por los peregrinos, los aspectos comunes y los divergentes entre ambos se pueden sintetizar en los siguientes puntos.

En primer lugar, los peregrinos tienden a reconocer el paisaje como aparición encadenada de elementos determinados. Este tipo de imagen secuencial es precisamente un rasgo típico de «*walkscape*», una imagen alcanzable sólo a través de la experiencia de las personas que hacen el camino. Sin embargo, cuando los mismos elementos del paisaje se guardan en la memoria del peregrino, acaban difuminándose en una imagen continua, difícilmente localizable en un lugar específico. Un ejemplo ilustrativo son palabras como «verde» o «*green*». Representan un conjunto de lugares que en muchos casos carecen de una ubicación clara, cuando lo que vieron en realidad son usos tan distintos como plantaciones de eucalipto, bosques semi-naturales de roble o vastos campos de maíz. Todo ello parece indicar que los peregrinos crean en su alrededor un mundo imaginativo más o menos abstracto para situarse dentro de él, sin tener necesariamente puntos de nexo con la realidad socioeconómica del territorio que se materializa en determinadas pautas de explotación de recursos.

En segundo lugar, para la mayoría de los peregrinos, la presencia de compañeros de viaje, es decir, peregrinos como él/ella, ocupa un lugar destacado en la percepción del Camino. Ciertamente, el número ascendente de peregrinos justifica la predominancia de tal percepción. Tampoco debemos perder de vista la fuerza ejercida por el Camino como infraestructura que favorece el contacto entre los viajeros que buscan cobijo sentimental en compañeros de viaje. Así, apoyados por el marco físico y programático compartido, los peregrinos se conocen y se ponen a hablar con una naturalidad raramente alcanzada en la vida cotidiana. Fruto de tal proceso de alimentación mutua es un tipo de imágenes intersubjetivas, mucho más ricas que las adquiridas individualmente. Falta por ver si la fuerza del Camino como dispositivo enriquecedor de la experiencia humana media también entre los peregrinos y los habitantes del lugar que visitan. Un trabajo nuestro con entrevistas a vecinos y empresarios de la zona de Triacastela (Takenaka, 2017) apunta a una respuesta afirmativa, que en todo caso necesita afianzarse con estudios empíricos más extensos.

En tercer y último lugar, un componente importante que encontramos en la narración de los peregrinos es la referencia a su lugar de origen. Así, el paisaje «*green*» del Camino queda superpuesta sobre la imagen originaria de Irlanda, Suecia o los Estados

Unidos de América, para buscar puntos en común o bien para resaltar rasgos particulares del Camino. Interpretamos que este tipo de representación refleja un intento más o menos inconsciente del peregrino de medir su distancia emocional con el entorno natural y humano que atraviesa, cuando no se identifican directamente con él. Al hablar de la vida de la comunidad rural, su aspecto de sosiego o la unión con la naturaleza, lo que tratan de encontrar es la relación íntima entre personas y también entre esas personas y el lugar que habitan. Naturalmente, este tipo de relato tendrá poco que ver con la percepción de la población local. No obstante, queremos destacar la fuerza del Camino como infraestructura para favorecer la penetración de sujetos externos en el territorio, un acontecimiento encadenado y autorregulado por la expectativa de los peregrinos por encontrar una relación humana intensa.

En conclusión, el paisaje del Camino de Santiago como imaginario de los peregrinos no refleja de modo fiel los aspectos concretos del entorno natural, ni la vida y los medios de subsistencia de la población que lo habita. Tampoco es una simple imagen idealizada de la ruralidad, inventada por agentes urbanos. El paisaje del Camino es un imaginario alcanzado a través de la experiencia colectiva de los peregrinos que se ponen en contacto directo con el territorio. Constituye, por tanto, una visión con potencial de ser alternativa entre la percepción arraigada en la población local y la imagen idílica difundida por los sujetos ajenos. Es algo que se consigue cuando personas con diferentes trasfondos culturales comparten la memoria de un viaje largo, algo que puede superar la imagen condicionada por la relación dicotómica de lo urbano y lo rural.

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#### 40. En las antípodas del «idilio rural»: la visión del espacio rural de Ildefonso Cerdà

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##### *In the Antipodes of the “Rural Idyll”: Ildefonso Cerdà’s Vision of Rural Areas*

This study examines Cerdà’s theoretical perspective of rural areas within the concept of rural idyll. From of a synthetic-qualitative methodology, the main source of information is Cerdà’s own work. We also analyse interpretations of scholars and biographers. We present the general implications of his approach from a theoretical point of view. The conclusions suggest that Cerdà’s ideas cannot be described as idealistic, but rather as possibilist. The values of the countryside and the city must be able to coexist together, according to the necessarily complementary character of one concept and another.

##### *1. Introducción*

La publicación de la *Teoría General de la Urbanización* (de ahora en adelante, TGU), en 1867, representó uno de los mayores revulsivos científicos, académicos y teóricos a favor de una nueva propuesta de ordenación del espacio urbano y del territorio, de aplicación universal y de profunda ambición técnica (Soria, 1979). Este proyecto acabó consolidándose, en la práctica, en la ciudad de Barcelona, con la creación del Ensanche —una malla urbana que, de hecho, es reconocida como uno de los elementos clave del paisaje urbano de Barcelona—. El artífice del Ensanche y de la TGU es el urbanista e ingeniero Ildefonso Cerdà; una de las figuras clave en el contexto del urbanismo moderno y considerado, por un creciente número de autores, uno de sus fundadores (Serratos, 2006; Merlin y Choay, 2010; Neuman, 2011). Su extensa obra se sustenta en una concepción multiescalar y multidisciplinar del análisis territorial. En este sentido, uno de los expertos internacionales en la obra de Cerdà afirma lo siguiente:

[P]erhaps Cerdà’s most enduring legacy to the city planning profession is the multi-disciplinary approach, bringing together and synthesising moral philosophy, theory, architecture, civil engineering, transportation, social studies, statistics, hygiene, law, property, politics, economics, finance, geography and public administration. (Neuman, 2011: 138).

Nuestro principal objetivo, en el marco de este trabajo, es acercarnos a la visión del espacio rural por parte de Ildefonso Cerdà, refiriéndonos en particular a un aspecto esencial de su planteamiento intelectual: su concepción del mismo como complementario e indisoluble del espacio urbano, en el marco de una concepción integral y unitaria de la idea de territorio. Dicho en otras palabras: en el pensamiento holístico de Cerdà, campo y ciudad son dos categorías que deben ser examinadas de forma interrelacionada e interdependiente. Porque considerarlas de un modo separado, en un sentido estricto, representa

para este autor una limitación conceptual y una renuncia a la posibilidad de interpretar el territorio de una manera global. En este sentido, nos parece interesante, y hasta cierto punto provocativo, situar Cerdà en el marco del llamado «idilio rural», una noción relevante en el pensamiento territorial del siglo XIX y contra la que creemos que puede ser intelectualmente rentable contraponer nuestro autor.

## 2. El «idilio rural»

El «idilio rural» (en lengua inglesa, *rural idyll*) es un concepto clásico que tiene sus raíces en la cultura grecolatina, con un fuerte arraigo en los estudios rurales europeos y americanos, y que resulta básico para comprender la evolución histórica de la relación entre la sociedad y su entorno (Mingay, 1989; Short, 1991; Fairclough, 1999; Bunce, 2003). Tal y como exponen Chueh y Lu (2017), este término se sustenta, en la cultura occidental, en tres pilares fundamentales: la concepción del paisaje (*landscape*), del entorno social (*social environment*) y de las actividades rurales (*rural activities*). Unas concepciones que, traducidas en una imagen colectiva (Yarwood, 2005), han tenido una traslación particular según el contexto social e histórico imperante; pero, que en cualquier caso, convergen en la consideración de los valores del mundo rural como positivos y virtuosos en el marco de la aspiración colectiva a un nuevo estilo de vida. En otras palabras, el «idilio rural» se asemeja al concepto de «arcadia» en el mundo rural (Swaffield y Fairweather, 1998); un concepto que ha tenido una influencia importante en la literatura occidental, pues ha sido objeto de atención por parte de numerosos escritores (Little y Austin, 1996). Estos dos últimos autores, por otra parte, nos ofrecen una definición del concepto de *rural idyll* que consideramos clarividente:

Despite its wide use in the past, the *rural idyll* as a concept, or set of concepts, has never been adequately unpacked. The term has been used to describe the positive images surrounding many aspects of the rural lifestyle, community and landscape, reinforcing as its simplest, healthy, peaceful secure and prosperous representations of rurality. (Little y Austin, 1996: 101).

Paralelamente, autores como Burchardt (2002) y Short (2006) afirman que este concepto ha tenido un apogeo notable en el contexto de la industrialización moderna, porque el *modus vivendi* ha cambiado de forma radical. Las condiciones de vida de la clase obrera en la ciudad industrial, profundamente degradadas, encarnan unos valores negativos que no tienen nada que ver con las cualidades que se atribuyen, «idilio rural» mediante, a la vida campestre: aire libre, amplitud del espacio, etc. Las alternativas que ofrecen los socialistas utópicos a la ciudad industrial en la primera mitad del siglo XIX apuntan a unas nuevas formas urbanas. Unas formas que han de permitir satisfacer las necesidades de una clase obrera diezmada por las deficientes condiciones económicas, sociales e higiénicas en que ha de desenvolverse. La concepción de Icaria por parte del francés Étienne Cabet (1788-1856), el sistema cooperativista de colonias obreras de Robert Owen (1771-1858) o el falansterio de Charles Fourier (1772-1837) son algunos de los ejemplos connotados de nuevas comunidades de consumo, producción y residencia ideadas por el socialismo utópico y enmarcadas, por regla general, en un mundo rural idealizado.

En este contexto cabe situar la obra de urbanistas como Ebenezer Howard (1850-1928), que plantean soluciones como la ciudad-jardín —una ciudad basada en aunar lo

urbano y lo rural, capaz de reunir los valores positivos de ambos—. Esta idea la concreta en su famosa representación gráfica de los tres imanes (*The Three Magnets*) incorporada en su obra magna *Garden Cities of Tomorrow* (1902). En ella, tres imanes apodados como *town*, *country* y *town-country* luchan para atraer hacia sí la mayor parte posible de población. Mediante el análisis de esta imagen se intuye, de hecho, la concepción del «idilio rural» de Howard: el imán *country*, que sintetiza los valores del campo, concentra características referidas al mayor contacto físico con lo natural (*beauty of nature*), un ambiente menos contaminado (*fresh air*) o la abundancia de recursos como el agua (*abundance of water*).

No obstante, Howard también presenta las desventajas de vivir en el campo —entre ellas, el mayor porcentaje de paro (*hands out work, low rents*), la falta de actividades de ocio (*lack of amusement*) o la ausencia de espíritu público (*no public spirit*), entre muchas otras—. Así pues, el escenario ideal para llevar a cabo el inédito estilo de vida propuesto no es, en sí mismo, el campo o el mundo rural, sino un nuevo medio capaz de reunir y de atraer lo bueno del campo y lo bueno de la ciudad. Se trata de una desmitificación del «idilio rural» que, referida a un escenario actual, también identifica Bell (2006) en otros autores. Sea como fuere, cabe subrayar que la figura que estudiamos en este artículo, Ildefonso Cerdà, es varias décadas anterior a Howard.

### 3. Consideraciones metodológicas

Sobre las premisas expuestas, nuestro estudio toma como referencia y como fuente de información principal la propia obra de Cerdà; concretamente, las tres grandes obras que constituyen, desde la perspectiva actual, el cuerpo de su legado escrito: la TGU, considerada el «núcleo central» de toda su obra; la Teoría de la Construcción de las Ciudades (TCC), publicada en 1859, y la Teoría de la Vialidad Urbana (TVU), fechada en 1861. Complementariamente, nuestro trabajo se basa también en las aportaciones de una serie de autores, citados en el apartado bibliográfico, que pueden ser considerados como los protagonistas de la recuperación intelectual y científica de Ildefonso Cerdà que se lleva a cabo a partir de los años 1970 —entre ellos, cabe remarcar Arturo Soria Puig, Salvador Tarragó, Javier García-Bellido y Albert Serratos—.

### 4. Más allá del «idilio rural»: Cerdà y la construcción de una visión integrada del territorio

En este apartado nos proponemos referenciar todas aquellas menciones que, a través del estudio de la obra de Cerdà o de sus principales biógrafos, recogen su visión sobre el espacio rural y sus conceptos conexos (particularmente, el de *rur* y el de *rurización*), así como sobre su necesaria ordenación a escala global. A tal efecto, nos centramos, en un primer momento, en el contexto social e histórico que influye en el estudio de este espacio por parte de Cerdà. Y, en segundo lugar, hacemos una serie de menciones a aspectos que relacionamos con esta transformación, a través del análisis de textos a cargo de algunos de los expertos en su obra y su figura.

Los desarrollos conceptuales de Cerdà sobre el espacio rural en general no se pueden entender al margen de la TGU, dado el carácter referencial que tiene esta obra dentro del conjunto de su aportación. De hecho, Cerdà hubiera querido completar la TGU con una Teoría General de la Rurización (TGR), con la idea de que ambas constituyeran,



globalmente, una Teoría General de la Colonización del Territorio (Soria, 1979, 1989). Pero lo cierto es que la TGU vio la luz en lo que fue el último periodo de la vida de Cerdà y, a fin de cuentas, las complejas vicisitudes de su vida, junto con una cierta falta de sistematicidad en la concepción de su obra escrita (Soria, 1989), impidieron que la TGR, como estudio diferenciado, llegara a materializarse. En cualquier caso, Soria (1979, 1989) subraya que existen en el conjunto de la obra de Cerdà —y no solo en la TGU— múltiples referencias y elementos de juicio que nos permiten inferir y deducir en un sentido amplio cuáles eran sus ideas fundamentales acerca del espacio rural.

Con la TGR Cerdà no habría pretendido otra cosa que proyectar en clave rural la idea motriz de sus propuestas urbanizadoras, y que se resume en el lema estampado en las páginas iniciales de la TGU: «Rurizad lo urbano, urbanizad lo rural». Más que ofrecer una nueva teoría, lo que Cerdà pretende es complementar la primera «insértandola en el contexto más amplio de la ordenación del territorio» (Soria, 1979: 195). Conviene tener en cuenta, también, que en todo el trayecto vital y profesional de Cerdà están presentes, de un modo permanente, una vocación y un ostensible interés por lo rural (Tarragó, 2007). Vocación que, por un lado, conecta con la prolongada tradición agraria de sus raíces familiares (el Mas Cerdà, eje genealógico de su familia, se remonta al siglo XV); y, por otro, se concreta en diferentes intervenciones profesionales suyas de cariz específicamente rural y agrario, tanto en su etapa de ingeniero al servicio del Estado como en el período en que ejerció como profesional liberal. Cabe mencionar, entre estas intervenciones, las que tienen que ver con la extensión y el desarrollo de canales de riego y de navegación (Soria, 1979).

Señalamos, a continuación, algunos de los aspectos que Soria (1979: 195-202, 1999) y García-Bellido (1999) destacan a propósito de la dimensión rural de Cerdà, y que cabe pensar que habrían sido debidamente desarrollados en el marco de su nonata TGR:

- En un principio la rurización («abrir la tierra para cultivarla») y la urbanización («abrir la tierra para habitarla») eran inseparables, y Cerdà creía llegado el momento histórico en que, gracias a los nuevos medios de comunicación, se volverían a unir e interpenetrar invirtiendo la tendencia a la creciente concentración que hasta entonces había imperado.
- Las primeras alusiones a los trabajos de rurización de Cerdà datan de 1872; se trata de proyectos respecto a los cuales llama la atención: por una parte, la gran escala a que se plantean; y, por otra, que el objeto a que se dirigen sea la explotación y el aprovechamiento del suelo.
- ¿Cómo concebía Cerdà la rurización? Tomando aspectos diversos y dispersos de su obra, Soria (1979: 198) considera que los «estudios de rurización» se plantean de manera «completamente análoga» a los de urbanización; y especifica lo siguiente: «tanto la apertura de tierras para habitarlas, como la apertura de la tierra para cultivarla implicaba [...], primariamente, la apertura de vías y la consiguiente distribución o división del territorio en vías de uso público e intervías de uso público y particular»; y concluye que, «[d]esde el punto de vista formal, la urbanización y la rurización consistían en lo mismo». De hecho, la expresión que Cerdà utiliza para caracterizar genéricamente la intervención ordenadora en el territorio, «integración territorial», es elocuente al respecto.

- También por analogía, podemos deducir que el tratamiento integrado de urbanización y rurización le permite hablar indistintamente de «fundación», «ensanche» y «reforma» de los «recintos urbanos o de edificación» y de las «grandes comarcas rústicas». Para Cerdà, por ejemplo, reformar una «comarca rústica» consistía en convertir, mediante la irrigación, los labrantíos en regadíos. Va en esa dirección su trabajo titulado *Teoría de las irrigaciones o de las reformas rurales*, de 1874-75. Según Soria (1979), esta teoría es enunciada por Cerdà en unos apuntes personales, no publicados, que forman parte del legado del urbanista depositado en el Colegio de Ingenieros de Caminos, Canales y Puertos, fechados en 1874-75 y agrupados bajo el epígrafe de *Despojo. Reclamación contra el despojo que por la ley de ensanches no se ha hecho de mi plan económico (razones en que ha de fundarse)*.
- En el caso de la rurización, la palabra *vía* o *vías* usada por Cerdà designa tanto caminos como canales, tanto carreteras como vías férreas. Y, en el fondo de todo, como observa Soria (1979), subyace en su uso una clara voluntad política, de corte regeneracionista.
- Tanto en términos de urbanización como de rurización, la división del territorio en vías e intervías traía aparejada consigo la regularización y la compensación de terrenos; es decir: implicaba la reparcelación agraria y urbana (siempre presidida por el mismo criterio de equidad que había aplicado a los procesos de regularización y compensación de terrenos llevados a cabo en el Ensanche). A propósito de esta cuestión, cabe señalar también —como apunta Soria (1979: 200)— que un criterio de analogía le lleva a formular, en 1861, una Teoría de las regularizaciones y compensaciones, así para la reforma de las ciudades como para sus ensanches, tanto para la urbanización como para la rurización. Respecto a esta teoría, Soria (1979: 200) remite al folleto que en 1861 publica Cerdà bajo el título *Cuatro palabras sobre el ensanche, dirigidas al público de Barcelona, por don Ildefonso Cerdà*.
- En el borrador de la carta al Marqués de Corbera, Cerdà estructura la TGR del mismo modo que la TGU, es decir, mediante cuatro bases fundamentales: facultativa, jurídica, económica y administrativa.

## 5. Conclusiones

Cerdà es consciente de la dualidad entre campo y ciudad y, de entrada, atribuye a un concepto y otro «valores» diferentes. Hay que remarcar, en cualquier caso, que «lo natural» es, para Cerdà, algo vinculado íntimamente al rur (aunque no lleguen a ser lo mismo: en el rur hay «intervención humana», mientras que en la naturaleza no).

Cerdà reconoce que la administración se ha encargado, históricamente, de urbanizar el campo; correlativamente, en el momento actual, considera que debe encargarse de rurizar la ciudad. Por este motivo, Cerdà propone trascender la dualidad campo-ciudad para llegar a una concepción holística y unitaria del territorio. Superar esta dualidad implica, de acuerdo con el pensamiento de Cerdà, superar las visiones idealistas: el rur deja de ser una noción «lejana» y meramente «esencial» porque entra en combinación con lo urbano, y pasa a ser una categoría diferente. Así, pues, la visión de Cerdà sobre el territorio no va en la línea del «idilio rural», sino que más bien es posibilista: los valores del campo y de la

ciudad deben poder convivir conjuntamente, de acuerdo con el carácter necesariamente complementario de un concepto y otro.

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**V. BRIDGING GAPS WITH RURAL REMOTE,  
LOW-DENSITY AND MOUNTAIN AREAS**

**V. COMBLER LES ÉCARTS AVEC LES RÉGIONS RURALES  
ÉLOIGNÉES, À FAIBLE DENSITÉ ET MONTAGNEUSES**

**V. TENDER PUENTES CON LAS ÁREAS REMOTAS,  
DE BAJA DENSIDAD Y MONTAÑOSAS**

**V. COLMATAR LACUNAS COM AS ÁREAS REMOTAS,  
DE BAIXA DENSIDADE E MONTANHOSAS**

*Parc National de Talassemtane (Province de Chefchaouen, Morocco,  
Africa). Source: Picture by Valerià Paül (13/7/2007).*





V. *Bridging Gaps with Rural Remote, Low-Density and Mountain Areas*

The specificity of the geographical analysis of rural areas focusses on its spatial dimension. Rural geography has repeatedly shown the heterogeneity of rural systems across the space. It is common that researchers describe a distinction between, on the one hand, rural areas experiencing positive dynamics (i.e. in economic and population terms) and, on the other hand, rural areas subjected to persistent problems. In the latter, for instance, rural flight is still observable, following a pattern that has been occurring across the world since the industrial revolution. In general terms areas from which people leave have been described as being in trouble for decades. Service levels and infrastructure provision is regularly reported as significantly lower than that available in cities or in other rural areas, despite the development policies that have been applied. For this reason, this thematic session deals with the geography of those rural spaces lagging behind.

There are different ways to refer to these areas. For instance, in the European Union some of the geographical typologies developed by ESPON (2011) map precisely those regions considered remote, sparsely populated and mountainous. In bigger countries such as Australia or Canada there is a geographical concept, remoteness, which is generally correlated to low density, fragility, marginalisation and depopulation. In the case of France, Kayser (1990) compared the *campagne vivante* (“countryside alive”) to those areas being depopulated and marginalised; more recently, the latter have been labelled as “the more fragile countryside” (Jean and Périgord, 2009) and “weak density areas” (Barthe and Milan, 2011).

This thematic session welcomes contributions around these questions:

- How can we demarcate low-density areas, mountainous areas, remote areas and rural marginal areas? To what extent does the tyranny of distance still apply? How do they overlap? What types of features distinguish them?
- How do we bridge the gap between the rural areas lagging behind and other rural and urban areas?
- What are the possibilities of rural-urban partnerships and governance?
- What are the policies (especially rural development policies) applied in these remote, low-density and/or mountainous areas and why are they commonly perceived as failures?

V. *Combler les écarts avec les régions rurales éloignées, à faible densité et montagneuses*

La spécificité de l'analyse géographique des zones rurales se concentre sur sa dimension spatiale. La géographie rurale a montré à maintes reprises l'hétérogénéité des systèmes ruraux à travers l'espace. Il est courant que les chercheurs décrivent une distinction entre, d'une part, les espaces ruraux connaissant des dynamiques positives (c'est-à-dire sur le plan économique et démographique) et, d'autre part, les espaces ruraux sujets à des problèmes persistants. Dans ce dernier cas, par exemple, l'exode rural est encore observable, suivant un schéma qui se répète dans le monde entier depuis la révolution industrielle. En termes généraux, les espaces d'où partent les gens sont décrits comme étant en difficulté depuis des décennies. Les niveaux de service et les infrastructures existantes sont régulièrement signalés comme nettement inférieurs à ceux disponibles dans les villes ou dans d'autres espaces ruraux, et ce, malgré les politiques de développement qui ont été

appliquées. C'est pourquoi cette session thématique traite de la géographie des espaces ruraux considérés comme en retard.

Il existe différentes façons de désigner ces domaines. Par exemple, dans l'UE, certaines des typologies géographiques développées par ESPON (2011) cartographient précisément les régions considérées comme reculées, peu peuplées et montagneuses. Dans les grands pays comme l'Australie ou le Canada, il existe un concept géographique, l'éloignement, qui est généralement corrélé à la faible densité, la fragilité, la marginalisation et le dépeuplement. Dans le cas de la France, Kayser (1990) a comparé la *campagne vivante* aux espaces en voie de dépeuplement et de marginalisation; plus récemment, ces dernières ont été qualifiées de « campagnes plus fragiles » (Jean et Périgord, 2009) et de « zones à faible densité » (Barthe et Millan, 2011).

Cette session thématique est ouverte aux contributions portant sur ces questions suivantes :

- Comment peut-on délimiter les espaces de faible densité, les espaces montagneux, les espaces reculés et les espaces ruraux marginaux ? Dans quelle mesure la tyrannie de la distance s'applique-t-elle encore ? Comment se superposent-ils ? Quels types de caractéristiques les distinguent ?
- Comment combler le fossé entre les zones rurales en retard de développement et les autres espaces ruraux et urbains ?
- Quelles sont les possibilités de partenariats et de gouvernance entre zones rurales et urbaines ?
- Quelles sont les politiques (en particulier les politiques de développement rural) appliquées à ces espaces reculés, de faible densité et/ou montagneux et pourquoi sont-elles communément perçues comme des échecs ?

#### V. *Tender puentes con las áreas remotas, de baja densidad y montañosas*

La especificidad del análisis geográfico de los espacios rurales se centra en su dimensión espacial. Así, la geografía rural ha demostrado repetidamente la variación espacial de los sistemas rurales. Es común que los investigadores realicen una distinción entre, por un lado, los espacios rurales que experimentan dinámicas positivas (por ejemplo, en términos económicos y demográficos) y, por otro lado, los espacios rurales sometidos a problemas persistentes. En estos últimos, por ejemplo, el éxodo rural sigue produciéndose, de modo que se mantiene un patrón que ha venido ocurriendo alrededor del mundo desde la revolución industrial. En términos generales, las áreas que la gente abandona han sido catalogadas como problemáticas desde hace décadas. En ellas, los servicios que se prestan y las infraestructuras que se realizan son por lo general significativamente más bajos en relación con los disponibles en las ciudades o en otros espacios rurales, a pesar de las políticas de desarrollo que se han aplicado. Por esta razón, esta sesión temática se ocupa de la geografía de los espacios rurales que han quedado rezagados.

Hay diferentes maneras de referirse a los mismos. Por ejemplo, en la UE algunas de las tipologías geográficas desarrolladas por ESPON (2011) cartografían precisamente aquellas regiones consideradas remotas, escasamente pobladas y montañosas. En países grandes como Australia o Canadá existe un concepto geográfico, la lejanía, que generalmente se correlaciona con bajas densidades, fragilidad, marginación y despoblación.



En el caso de Francia, Kayser (1990) comparó la *campagne vivante* («campos vivos») con aquellos espacios en proceso de despoblación y marginalización; más recientemente, estos últimos han sido etiquetados como «el campo más frágil» (Jean y Périgord, 2009) y «zonas de densidades débiles» (Barthe y Millan, 2011).

Esta sesión temática acoge con especial interés contribuciones sobre las siguientes cuestiones:

- ¿Cómo podemos delimitar espacios de bajas densidades, montañosos, remotos y rurales marginales? ¿Hasta qué punto sigue existiendo la tiranía de la distancia? ¿Cómo se superponen? ¿Qué tipos de características las distinguen?
- ¿Cómo podemos tender puentes entre las áreas rurales rezagadas y otras áreas rurales y urbanas?
- ¿Cuáles son las posibilidades de alianzas y gobernanza campo-ciudad?
- ¿Cuáles son las políticas (especialmente las de desarrollo rural) aplicadas en estos espacios remotos, de baja densidad y/o montañosos y por qué son comúnmente percibidas como fracasos?

#### V. *Colmatar lacunas com as áreas remotas, de baixa densidade e montanhosas*

A especificidade da análise geográfica dos espaços rurais centra-se na sua dimensão espacial. Assim, a geografia rural demonstrou repetidamente a variação espacial dos sistemas rurais. É comum que os investigadores façam uma distinção entre, por um lado, os espaços rurais que vivem dinâmicas positivas (por exemplo, em termos económicos e demográficos) e, por outro lado, os espaços rurais submetidos a problemas persistentes. Nestes últimos casos, por exemplo, o êxodo rural continua a verificar-se, de forma que se mantém um padrão que tem vindo a ocorrer em todo o Mundo desde a revolução industrial. Em termos gerais, as áreas que as pessoas abandonam foram catalogadas há décadas como problemáticas. Nestas, os serviços que se prestam e as infraestruturas que se constroem são, regra geral, significativamente mais baixos em relação aos disponíveis nas cidades ou em outros espaços rurais, apesar das políticas de desenvolvimento que se aplicaram. Por esta razão, esta sessão temática dedica-se à geografia dos espaços rurais marginalizados.

Há diferentes maneiras de fazer referência a estes espaços. Por exemplo, na UE algumas das tipologias geográficas desenvolvidas por ESPON (2011) cartografam precisamente aquelas regiões consideradas remotas, escassamente povoadas e montanhosas. Em países grandes como a Austrália ou o Canadá existe um conceito geográfico, o afastamento, que está geralmente relacionado com as baixas densidades, fragilidade, marginalização e despovoamento. No caso de França, Kayser (1990) comparou a *champagne vivante* («campos vivos») com aqueles espaços em processo de despovoamento e marginalização; mais recentemente, estes últimos foram etiquetados como «o campo mais frágil» (Jean e Périgord, 2009) e «zonas de densidades débeis» (Barthe e Millan, 2011).

Esta sessão temática acolhe com especial interesse as contribuições sobre as seguintes questões:

- Como podemos delimitar espaços de baixas densidades, montanhosos, remotos e rurais marginais? Até que ponto continua a existir a tirania da distância? Como se sobrepõe? Que tipos de características é que as distinguem?

- Como podemos contribuir para colmatar lacunas entre as áreas rurais marginalizadas e outras áreas rurais e urbanas?
- Quais são as possibilidades de alianças e governança campo-cidade?
- Quais são as políticas (especialmente as de desenvolvimento rural) aplicadas nestes espaços remotos, de baixa densidade e/ou montanhosos e por que são comumente percebidos como fracassos?

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## 41. Territórios de baixa densidade: conceito e aplicação ao caso português

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### *Low Density Areas: Concept and Application to the Portuguese Case*

The notion of low density territories (LDT) refers to a mainly rural territory with low human occupation. There is considerable diversity of criteria used for its characterisation and classification. The concept implemented includes a set of variables and indicators using a multidimensional perspective. The objective of the study is to develop criteria and variables that allow LDT classification. As a methodology, the LDT delimitation criteria were applied under a multifunctional perception to develop several maps by topological profiles. The study concludes that it is possible to apply the concept of LDT including variables and indicators related to territory, demography, settlement, socioeconomic basis and geographical positioning.

### *1. Introdução*

O conceito de Território de Baixa Densidade (TBD) remete-se para um território rural com uma densidade populacional inferior a um limiar previamente fixado. Mas, na prática, a sua aplicação origina inúmeras interrogações e dificuldades. A determinação dos valores de referência que lhe servem de cálculo, suscita a crítica recorrente da falta de objetividade ou de fundamentação científica dos valores adotados, tantas e tão grandes são as variabilidades e especificidades que marcam o território.

Existe, no entanto, uma grande diversidade de critérios relativamente aos valores e limiares adotados, bem como de outros indicadores utilizados na caracterização e classificação destes territórios: isolamento e perifericidade geográfica; esvaziamento e envelhecimento populacional; dependência agrícola e declínio económico. O conceito tem sido definido e aplicado em diferentes contextos e sob diferentes perspetivas, originando uma grande diversidade e heterogeneidade de tipologias associadas aos espaços.

Como tal, o objetivo deste estudo é desenvolver critérios e variáveis que permitam classificar TBD sob uma perceptiva multifuncional.

## *2. Conceitos e tipologias: contexto internacional e nacional*

Em seguida organizaram-se em quatro grupos com base em estudos relevantes segundo os principais critérios de delimitação:

- O primeiro reúne estudos que se baseiam essencialmente em critérios associados às dinâmicas e densidades populacionais (OCDE, 1994; Baptista, 2003; Mipaaf, 2007; Martins, 2008; DATAR, 2011) assim como o grau de urbanização (INE e DGOTDU, 1998; Eurostat, 2005; MADRP, 2006; IGE, 2011).
- O segundo grupo inclui estudos em que a delimitação teve por base os níveis de desenvolvimento (Conselho da União Europeia, 1999; Conselho de Ministros, 2003; GPPAA, 2003; Nicot, 2005) e as dinâmicas socioeconómicas (DCLG, 2002; MAGRAMA, 2009).
- No terceiro grupo identificam-se tipologias elaboradas com base na análise das relações urbano-rurais (Weber, 2001; Bengs e Schmidt-Thomé, 2004) e nas acessibilidades (LUC, 2005; Dijkstra e Poelman, 2008).
- No último grupo as tipologias foram elaboradas segundo multicritérios de tipo socioeconómico (Copus, 2011; CGET, 2017) ou por características territoriais (Marques, 2004; Rubio Terrado, 2005; Ramos, Azevedo e Bento, 2008; Azevedo, 2013).

A maioria das tipologias apresentadas responde a fins específicos: caracterização e diagnóstico e delimitação de territórios mais ou menos homogéneos; diferenciação de territórios com problemáticas comuns e específicas; operacionalidade de intervenções e políticas sectoriais e ou territoriais. No atual contexto de concepção de políticas no quadro da União Europeia, e em particular nas políticas orientadas para os territórios rurais e TBD, a diferenciação dos espaços rurais e urbanas torna-se, em muitos casos, um requisito indispensável. A Comissão Europeia usa frequentemente uma tipologia desenvolvida pela OCDE (1994), a qual classifica uma região rural com base apenas na sua densidade populacional. Eis que se estabeleçam diferentes dimensões orientadoras:

- A dimensão territorial que faz referência à região/local e suas características geomorfológicas e ecológicas e/ou performances económicas, sociais e políticas.
- A dimensão temporal que se refere não apenas à periodicidade das dinâmicas mas também à historicidade da evolução das opções de natureza técnica, económica e/ou comportamental.
- A dimensão do desenvolvimento, nomeadamente o desenvolvimento rural, entendido como conceito multissetorial que engloba questões de natureza diversa e que estava subjacente às tipologias apresentadas.
- Finalmente, uma outra questão importante prende-se com o âmbito e aplicação, uma vez que implicam a consideração de múltiplos fatores, nomeadamente nos casos em que a sua elaboração visa a operacionalidade de políticas diferenciadoras.

Com base nesse conjunto de dimensões, a metodologia utilizada deverá ser orientada sobretudo para a diferenciação pelas funções e potencialidades e não com base física e geográfica.

## *3. Território de baixa densidade: um conceito multidimensional*

A noção de baixa densidade é conotada negativamente e abordada como um problema: é sinónimo do abandono agrícola e do despovoamento rural de dependência social e económica, de «declínio», do «vazio» e do «deserto» (Simard, 2005). Os TBD são

caracterizados por um conjunto de atributos negativos, classificados como tal sob normas urbanas: escassez/ausência de população, sobretudo jovem, de serviços e de atividades. Territórios em espaços residuais e excluídos de um processo de urbanização dominante, contínuo e irreversível e aos quais têm sido atribuídas várias designações: «rural profundo», «rural frágil», etc. (Azevedo, 2013). Na grande maioria dos estudos e investigações sobre a problemática dos TBD, as perspetivas adotadas privilegiam claramente os indicadores de povoamento que servem simultaneamente de critério de definição e de delimitação dos perímetros geográficos.

Neste contexto, a densidade a adotar deverá ser apreendida como uma ordem de grandeza e não um critério estrito devendo ser introduzidas outras dimensões e critérios que contribuem para a caracterização dos TBD, nomeadamente em termos do perfil territorial, do perfil demográfico, do perfil de povoamento, do perfil socioeconómico e do perfil de acessibilidade. Em termos conceptuais, estes foram os perfis selecionados como componentes essenciais para identificação dos TBD.

#### 4. Metodologia

##### 4.1. Identificação dos perfis e variáveis

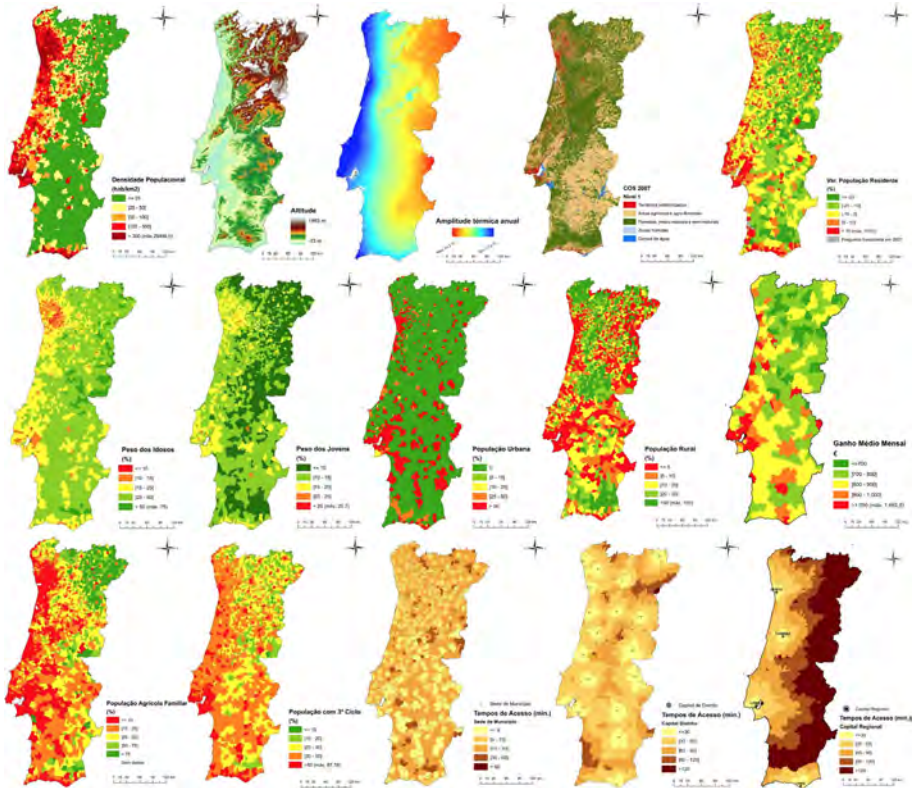
O algoritmo de tratamento dos dados até à obtenção da classificação final é constituído por um procedimento de normalização, um procedimento de agregação e um procedimento de apresentação. Para cada indicador procurou-se identificar, através de representação gráfica, a dinâmica temporal e territorial recorrendo aos dados disponíveis do INE dos Censos 1991, 2001 e 2011 (dados provisórios para 2011) e dos Recenseamentos Agrícolas de 1989, 1999 e 2009 (Tabela 1).

Tabela 1. Variáveis utilizadas em cada perfil.

Perfis	Variáveis	Fontes
Densidade	Densidade populacional por freguesia	Censos 1991, 2001 e 2011 (INE)
Perfil territorial	Hipsometria Amplitude Térmica Uso do Solo	ASTER GDEM 30m BIO7 – Global Climate Data COS2007 – IGP
Perfil demográfico	Variação da população residente Proporção da população residente com 65 ou mais anos Proporção da população residente com 14 ou menos anos	Censos 1991, 2001 e 2011 (INE)
Perfil de povoamento	Proporção da população residente em lugares com 2000 ou mais habitantes Proporção da população residente em lugares com 100 ou menos habitantes	Censos 1991, 2001 e 2011 (INE)
Perfil socioeconómico	Ganho Médio Mensal Importância da população agrícola familiar na população residente Proporção da população residente com pelo menos o 3º ciclo completo	MTSS- 2004 e 2009 (INE) Recenseamento agrícola 1989, 1999 e 2009 (INÉ) Censos 1991, 2001 e 2011 (INE)
Perfil de acessibilidade	Tempos de acesso das sedes de freguesia aos respetivos centros municipais, distritais e regionais	Elaboração com base nas funções de <i>routing</i> do Google Maps

Previamente, isto permite aferir a tendência global dos territórios nas várias dimensões, identificando aqueles cujas dinâmicas temporais são mais acentuadas e indiciadoras de configurarem territórios de no presente ou num futuro próximo, bem como identificar clusters territoriais que possam constituir áreas-problema. Em seguida apresentam-se os mapas das variáveis consideradas nos perfis definidos (Figura 1).

Figura 1. Mapas das variáveis consideradas nos perfis definidos. Fonte: elaborado pelos autores.



#### 4.2. Procedimento de normalização

Recorreu-se assim à estandardização estatística (*z-score*), expurgando as diferenças de valores entre indicadores das diferenças de unidades de medida e de escalas. Na segunda fase, procedeu-se ao reescalonamento pelo método *minmax* de modo a anular os inconvenientes analíticos resultantes dos desempenhos negativos inevitáveis no método *z-score* e garantir a incorporação da variabilidade entre valores extremos presente nos indicadores nos resultados obtidos. Assim, na aplicação do *minmax* como método de reescalonamento dos indicadores já estandardizados pelo procedimento *z-score*, tomam-se o máximo e o mínimo dos valores dos indicadores e subtrai-se o mínimo de referência ao valor observado dividindo-se essa diferença pela diferença entre o máximo de referência e o mínimo de referência.

#### 4.3. Agregação e classificação territorial

Os indicadores de base, após a aplicação do procedimento de normalização, foram agregados dando origem a índices parciais (perfis) que são, em termos metodológicos, um passo intermédio para a construção do índice global. Optou-se assim pelos seguintes procedimentos:

- O valor de cada índice parcial foi obtido por agregação, através de média dos respetivos indicadores com igual ponderação.
- O índice global resulta da média ponderada da densidade populacional (com um peso de 50%) e dos perfis (com ponderação igual a 10% cada, significando, por isso, que os resultados refletem uma visão onde se assume a mesma importância dos vários perfis para a identificação dos TBD).

#### 5. Resultados

Da aplicação de cada um dos índices parciais ao nível das freguesias que foi transformado por divisão com a respetiva média do continente, obtém-se os índices relativos referenciados ao valor do continente. Assim, a identificação dos TBD resulta da representação estatística da densidade populacional e dos perfis territorial, demográfico, de povoamento, socioeconómico e de acessibilidade assumindo estes últimos igual ponderação, na medida em que a seleção dos indicadores de base assume uma lógica onde todas estas componentes sustentam de igual modo os TBD. São classificados como TBD aquelas freguesias cujo valor do índice global seja inferior à mediana das freguesias com índice inferior ao valor de referência do continente (Figura 2).

Seguidamente apresentam-se três cenários alternativos de delimitação dos TBD para fins de políticas públicas (Figura 3). No primeiro, mantêm-se a freguesia como nível de desagregação territorial e transpõem-se os resultados diretos das metodologias utilizadas para os cálculos dos indicadores sintéticos ou agregados. No segundo, adota-se o município como nível territorial de base, utilizando as metodologias e os resultados obtidos ao nível das freguesias para fixar uma delimitação concelhia dos territórios classificados como de baixa densidade. Um município é classificado como elegível para a classificação final se pelo menos 50% da sua área esteja integrada em freguesias classificadas como de baixa densidade. No terceiro, adotam-se as nomenclaturas de unidades territoriais para fins estatísticos de nível 3 (NUTS III) como nível territorial de base, utilizando as metodologias e os resultados obtidos para estabelecer uma delimitação com base nas unidades estatística territoriais de nível 3 dos espaços classificados como de baixa densidade. Uma NUTS III é classificada como elegível para a classificação final se pelo menos 50% da sua área esteja integrada em freguesias classificadas como de baixa densidade.

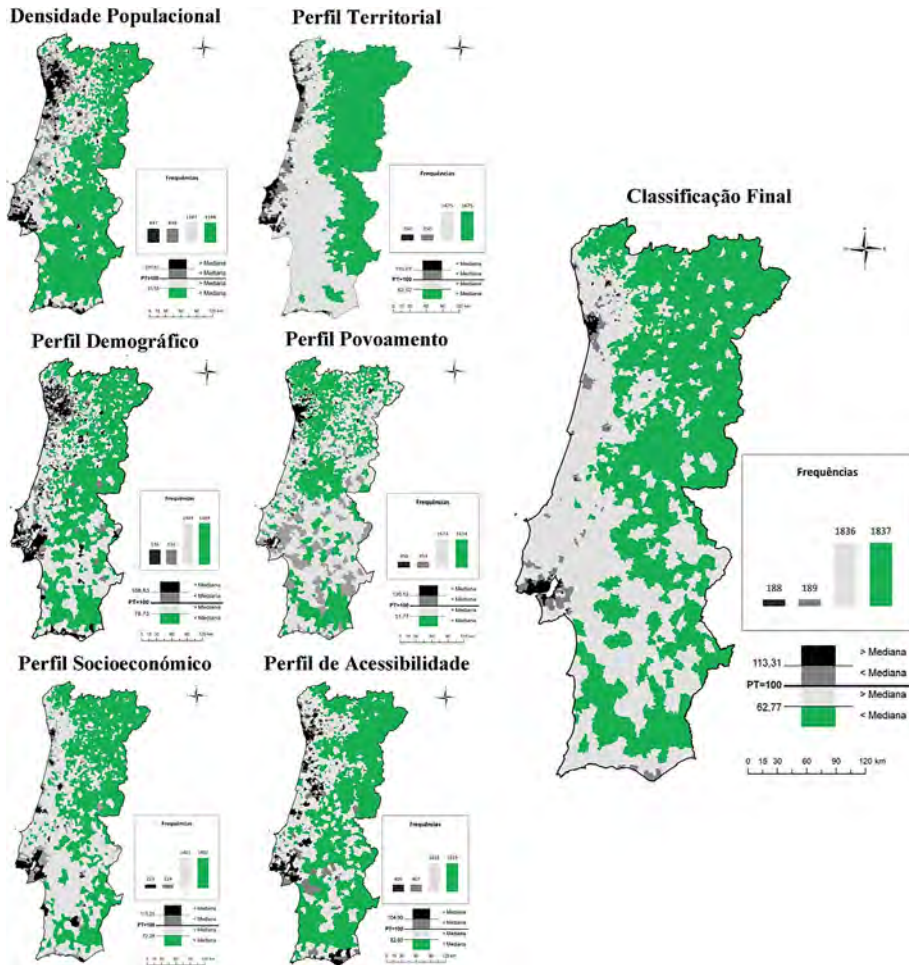
#### 5. Conclusões

A determinação do conceito de TBD e a sua aplicação constituem um exercício prévio à concepção e implementação de políticas públicas específicas de promoção do desenvolvimento e da coesão territorial para os espaços rurais mais periféricos e vulneráveis.

O conceito de TBD aqui adotado privilegia, assim, e no intuito de superar essas dificuldades, uma perspetiva multidimensional que contempla um conjunto de variáveis e

indicadores relacionados com o território, a demografia, o povoamento, a base socioeconómica e o posicionamento geográfico.

Figura 2. Classificação das freguesias em cada perfil e classificação global. Fonte: elaborado pelos autores.



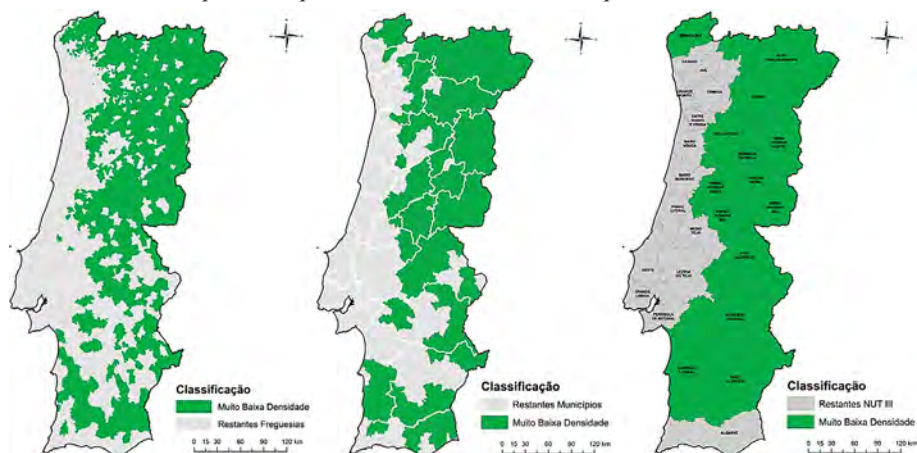
Da análise sobre estudos nacionais e europeus importa concluir, em primeiro lugar, que a generalidade das classificações e tipologias só deve ser utilizada como mera aproximação de realidades muito complexas e com contextos territoriais multifacetados. Em segundo lugar, a maioria das tipologias enunciadas responde a fins específicos: caracterização e diagnóstico e delimitação de territórios mais ou menos homogêneos; diferenciação de territórios com problemáticas comuns e singulares; operacionalidade de intervenções e políticas sectoriais e ou territoriais

Finalmente, e ainda que os indicadores utilizados tendem a variar consoante o âmbito territorial e a escalas de abordagem, é possível identificar alguns elementos comuns,



frequentes e regulares, relacionados, nomeadamente, com questões relativas ao território, à demografia, ao povoamento, à base produtiva e às acessibilidades.

Figura 3. Mapas finais dos territórios de baixa densidade por freguesia, por município e NUTS III. Fonte: elaborado pelos autores.



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## 42. Latex Production Reborn in the Amazon: Eco-economy and Sustainability?

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### 1. Introduction

Ever since the planned colonisation projects and massive road building programmes of the 1970s, deforestation in northern Brazil has been condemned because it causes loss of biodiversity, interferes with precipitation patterns and river discharge, releases carbon dioxide through forest burning and reduces the capacity for absorbing carbon (Davidson et al., 2012). Classic studies of this process also showed that colonisation had a high human cost in the form of poverty, violent land dispute and accentuated social inequality (Foweraker, 1981; Hecht and Cockburn, 1990; Schmink and Wood, 1992; Oliveira, 1996).

Since the 1990s as part of a national strategy to reduce deforestation and emissions, the Brazilian Ministry of the Environment adopted three strategies to reverse this trend:

- setting aside 25% of the region in different types of inhabited and uninhabited conservation units;
- aggressively combating illegal deforestation through a combination of remote sensing, on-the-ground inspection and confiscation of equipment and livestock; and
- readapting previous non-timber forestry activities of the past to meet new demand from the global eco-economy. Extracting latex is an important non-timber activity and is the focus of this study.

Today producing latex is seen to promote low-carbon growth, foster forest conservation and alleviate rural poverty, exactly the opposite of what it did in the past. Historically, rubber tapping was infamous for debt peonage, social polarisation and extreme poverty. So the question arises: will renewed latex production promote sustainability? Does it result in environmental conservation, raise incomes significantly, bring about social inclusion and sustain dignified livelihoods? Or is renewed latex production merely an adjustment of capitalist exploitation to a green demand? As latex is extracted from rubber trees without removing native forest or by planting trees in agro-forestry systems in deforested regions it is thought to contribute to promoting a green-economy.

However, promoting environmental preservation alone is not enough for attaining sustainability. There must be social responsibility, particularly in a poor region like the rural Amazon. How are producers and workers articulated to the rubber productive chain? In the primary phase of natural latex extraction do small producers in preserved parts of the Amazon have fair contracts and receive just prices? Is subordination to industry similar to debt peonage of the past or is upward social mobility achieved in the pursuit of dignified livelihoods?

## *2. Theoretical Perspectives and Methods*

Planting rubber trees for selling latex in the global eco-economy is now seen to be a green solution to environmental problems. The activity is billed as agro-forestry, in which a permanent tree crop protects the soil from erosion and insolation because falling leaves create a carpet of organic material. Trees are also said to act as carbon sinks and can be counted as part of the legal forest reserve required by Brazilian environmental legislation (Grupo Hevea Brasil Seringueira, 2017). All of the photographs on specialised web pages show neat rows of rubber trees planted as a monoculture. The term agro-forestry is thus abused by agribusiness interests when this is really only rubber tree silviculture without the biodiversity of true agro-forestry.

Small-scale production of latex undertaken by the traditional population in the Amazon is closer to agro-forestry because the trees are not planted in dense stands and instead are scattered among other tree fruits in village areas and in secondary growth in fallow fields. The WWF Brazil defends this kind of rubber production in the Amazon as an activity that protects forest biodiversity and has the potential to promote sustainable development in the region (WWF Brasil, 2016).

As the above shows, one must be careful with green-washing narratives of the eco-economy that can be contradictory when environmental preservation and economic growth take place at the cost of local social improvement in poor regions. Attaining the former is no guarantee of the latter. Indeed, green economics focus almost exclusively on financial variables and on valuing resources as natural capital in order to quantitatively measure the environment-economic nexus. This line of thinking in turn reduces the status of sustainable development to merely being the environmental-economic nexus and the UN now associates sustainable development with green economy (Lander, 2011; Faccar, Nahman and Audouin, 2014; Dale, 2017; Georgeson, Maslin and Poessinouw, 2017).

Equating the green economy or eco-economy with sustainable development repeats the same mistake of equating economic growth with social development that was common in the mid-20<sup>th</sup> century. Severe social problems from that time persist until today showing how the premise that economic growth leads to social justice was, and still is, a false assumption. Unfettered economic growth by itself has privileged the few, caused social polarisation, concentration of wealth, poverty and social injustice. In the 21<sup>st</sup> century, poverty is no longer just chronic in less developed countries but increasing in developed countries also. It is not clear how the green economy will promote environmental preservation, economic stability and social justice.

Economic determinism is once again cited as a way of solving any problem independent of its nature through adjustment to the global capitalist system. Environmental destruction is resolved by applying technology regardless of how people in different places and societies value, deal with and interact with their local environment. Social questions are reduced to economic growth and green jobs that reduce poverty. The commoditisation of nature takes place under the guise of protecting nature (Lander, 2011; GESNAT, 2012). In sum, ecological and social issues are separated and mediated by economic investment and technological solutions without regard to specific social-ecological relations and spatial differences in the world.

So eco-economy or green economy lines of thinking are at odds with the concept of sustainable development as, “initially conceived and supported by the Hammarskjold Foundation and the Brandt Commission that warned against the conflation of growth and development. [Sustainable development] connoted grassroots engagement, equality, social justice, local empowerment, and low-impact development” (Dale, 2017: 1).

Research methods consisted of consulting historical accounts, scientific works, secondary data as well as undertaking first-hand research in rural areas of the Amazon. Rubber factories were visited and information obtained concerning rubber production, commercial networks, supply chains and labour relations in order to evaluate whether they were merely articulated to the eco-economy or also promoted inclusive sustainable development.

### *3. Natural Rubber Production and the Amazon Today*

Since the 19<sup>th</sup> century natural rubber has always been associated with industrial applications, especially for the production of pneumatics/tyres. The elastic properties of natural rubber make it an essential component in tyre production, even when mixed with synthetic rubber. Tyres used in heavy transport such as lorries and buses, on race cars and on airplanes are made exclusively from natural rubber so that 60% of world natural rubber production is consumed in pneumatic manufacturing (Caetano, 2014). The exponential increase in the number of vehicles and airplanes in the world has induced the expansion of tyre production and therefore the supply of natural rubber needed. Over time industrial applications of natural rubber have diversified from tyres to medical, chemical, hygienic and other products that require elastic properties. A number of products cannot be made from synthetic rubber, such as rubber gloves in general, surgical gloves, surgical medical components, condoms, shoe soles, hoses and impact-absorbing components.

Consequently, natural rubber still is very important despite the introduction of synthetic rubber after 1950 and it makes up about a third of global production of rubber in general. Until the early 20<sup>th</sup> century natural rubber collected in the Brazilian Amazon supplied global demand but South-east Asian plantations came to dominate markets and today are responsible for about 90% of all natural rubber produced (Dean, 1987; FAO, 2011). According data from the International Rubber Study Group after 1950 the market for natural rubber increased by a million tonnes per decade. After 1990 this pace tripled to about three million tonnes per decade. In 2011 world natural rubber consumption reached 10,920,000 tonnes while synthetic rubber was 14,930,000 tonnes (Caetano, 2014).

As Brazil industrialised after World War II a growing deficit between domestic demand and supply for rubber led Brazil to import and then to start to produce synthetic rubber on a large scale. Brazil ceased exporting rubber in 1947, started to import natural rubber in 1951 and synthetic rubber in 1955, to produce synthetic rubber in 1962 and to export synthetic rubber the next year. By 1985 49,371 tonnes of natural rubber was produced in the country versus 60,224 imported and 265,940 tonnes of synthetic rubber was produced of which 41,656 was exported (Dias and Guerra, 1959; Dean, 1987). Within this context Amazonian natural rubber became insignificant.

Today Brazil is still dependent on importing natural rubber from South-east Asia, which represents 64% of the 300,000 thousand tonnes consumed annually. Nearly 80% of natural rubber consumed is for pneumatic production. There are twenty national and multinational pneumatic industries which produce for the domestic market as well as export to South American countries and the United States. These industries are located in the South-east and South regions of the country and induced the rise of rubber plantations there (BRADESCO, 2017).

Contemporary latex production in the Amazon is usually associated with the rubber tappers of Acre state, which was where latex production always was more productive. The rubber tappers formed a famous social movement in the late 1980s to resist ranchers who violently removed them from their free holdings and cut down all trees in order to plant pasture. Their struggle became an international cause for saving the Amazon rainforest. The Chico Mendes Forest Reserve was founded and the rubber tappers formed partnerships with Brazilian and international governmental and non-governmental organisations to explore ways of developing crafts in order to aggregate value to latex and later industrial applications. A condom factory was set up in Xapuri near the reserve and a tyre and inner tube factory for bicycles and motorcycles in Manaus, so contributing to work and income in both rural and urban areas (Figure 1). These are essential products for low-income people of the Amazon who constitute the vast majority of inhabitants of the region.

Figure 1. Natural rubber factories in the Brazilian Amazon. Source: Ministry of Transport.



Since the 1970s Neotec Industries has produced tyres and inner tubes for bicycles and motorcycles manufactured in Manaus. Demand increased rapidly for latex after 2005

when production of inner tubes began. Manaus has become an important centre for two-wheeled vehicle production in Brazil. Well known national and multinational firms, such as Agrale, Caloi, Kawasaki, Suzuki, Honda and Harley Davidson, have set up factories there. The first factories produced for the regional and national market but after 2010 started exporting vehicles. These industries need the equivalent of about 14,000 tonnes of latex but only 2,000 tonnes is produced regionally, so the EMBRAPA research wing of the Ministry of Agriculture and the Amazonas State Rural Development Secretariate have researched new ways to expand the area of planted rubber trees, to improve extraction methods and to increase work productivity of traditional rubber tappers (Painel Florestal, 2014).

The new demand induced a change in the chain of production with the establishment of two factories for processing latex into dark granulated rubber ready for the tyre factory, one in the historic latex producing area of Manicoré along the Madeira River and another on the Amazon River near Manaus. The rubber tapers are organised in cooperatives and sell to the processing factories. This is a considerable change from peonage of the past and even today for many rural products of the Amazon which pass through numerous middlemen.

Today more than 2,000 families throughout the state of Amazonas supply the factories with latex. Most are former rubber tappers located in the historic rubber producing valleys of the Juruá, Purus, Madeira and Tapajós Rivers where they are again working their rubber trees (Santos, 2011). In field research undertaken along the Madeira River in 2002 and 2005 just before latex production became important in the Amazon again, tappers stated that they did not cut down their trees during the long period of reduced production because they thought that one day latex would make a comeback. Prices are favourable again, new forms of production have made work less onerous and payment is upon delivery and not delayed as can occur with other farm products. However, taping rubber is just one of a number of rural activities undertaken by farmers who are not specialised and earn small amounts of income from each activity. Interviewed farmers of the lower Tapajós River earned on average US\$473 which represented about 10% of their annual income in 2013.

The whole production chain receives subsidies from different levels of government with the aim of promoting sustainable green activities. The factories received financing for installation and enjoy continued tax relief. The federal government guarantees a minimum price of US\$2.24 per kilo of latex for tappers. The state of Amazonas pays another US\$0.64 and some municipalities also pay incentives so that payment can reach US\$3.21. The payment made by the state of Amazonas is part of a larger programme of sustainable development for poor areas of the state. The programme includes environmental protection, provides technical assistance, promotes cooperative marketing (Santos, 2011; Jornal do Commercio, 2014) and is a rare case of integrated rural and industrial policy in the Amazon, where manufacturing usually only benefits large cities.

The Natex condom factory was located near the Chico Mendes Forest Reserve in 2008 with objectives of improving latex production among poor families of the Reserve and of promoting forest conservation through the use of non-timber activities. The production of rubber tappers was mobilised by the factory to meet demand from the Brazilian

National Health System for condoms which are distributed throughout Brazil with the objective of preventing the transmission of sexual diseases. The factory was located there and not elsewhere in Brazil due to the pressure of the rubber tapper movement. The factory was built with federal and state funds with the aim of associating conservation and social inclusion of rubber tappers living in the Forest Reserve.

Natex has the capacity to produce about 100 million condoms per year, once employed 150 workers in the factory. Approximately 700 tapper families in a total of 2,500 families of the Reserve supplied the factory with about 500,000 litres of natural latex per year. With demand from the new factory a number of families resumed taping after a period not extracting rubber. The price paid for latex increased from US\$2.49 in 2007 to US\$3.50 in 2013 which is well above the market price of about US\$1.35. The factory price takes payment for environmental services into account and tappers are organised in associations and cooperatives which help them receive better prices through selling directly the factory without going through middlemen or a primary processing stage. Tappers earned on average US\$2,839 a year in 2013 (Palermo, 2008; Natex, 2014; Redação Exame Abril, 2014; Governo do Estado do Acre, 2018).

Since inception the factory has been operated by the state government but faced by financial difficulties it has been trying to make a concession of the factory to the private sector. However, original objectives have been compromised. By 2015 the factory had stopped buying from the tappers of the Reserve and started buying from farmers with planted rubber trees, production fell to 70% of the previous level and the factory work force was halved (Lima, 2016; Neto, 2016).

#### *4. Conclusion*

Latex production of the past was completely unsustainable on nearly all counts. It could provoke deforestation when undertaken on plantation scale and was characterised by economic exploitation and poverty. Latex production in the Amazon today succeeds in uniting a green activity with sustainability by contributing both to rural and urban income through the production of basic consumer items for low-income people of the region. Former rubber tapping areas once again came into production so diversifying and modestly increasing family income. Regional markets and more direct commercial networks gave rise to better prices for tappers and the expansion of industries related to natural rubber raise expectations for the future.

Government policy for further research concerning new planting systems and economic support for smallholders and social programs is indispensable for the sustainability of the renewed natural rubber production in the Amazon. Environmental benefits are seen in the maintenance of forest and biodiversity because latex production is based on collecting in the forest and in old fallows or on planting trees in small agro-forestry plots surrounded by native forest. However, if left only to the private sector, environmental and social objectives will be lost and only production and economic concerns will prevail. In a remote region like the Amazon, with dispersed low-density settlement and deficient transport systems, government partnership is crucial for constructing truly sustainable livelihoods.



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### 43. Jóvenes y medio rural: ¿un binomio hacia la exclusión?

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#### *Youth and Rural Areas: A Binomial towards Exclusion?*

Youth in rural areas have always suffered from vulnerability. Based on the experiences and opinions of young people, we intend to determine where vulnerability and social exclusion come from. The study case of OMEZYMA Local Action Group (Teruel) suggests that, in spite of traditional and geographical factors (such as mobility and accessibility), political wills and decisions are those that hinder these collectives, irrespective of the economic situation. Crisis serves more to transfer responsibilities to the key stakeholders and actors of rural sustainability: young people.

#### *1. Planteamiento y objetivo*

La crisis de 2008 y sus diferentes impactos socioeconómicos incrementaron las situaciones de pobreza y exclusión social tanto en áreas urbanas como rurales. Pero los motivos por los que la población rural puede quedar excluida en estos últimos no se vinculan solo con las transformaciones acaecidas desde entonces. El medio rural presenta unas características propias que hacen de él un espacio en el que las posibilidades de quedar excluido son mayores que en ámbitos urbanos, con o sin crisis económica.

Existen numerosos trabajos internacionales que abordan el análisis de la exclusión social y/o económica en medio rural (Milbourne, 2010; Hochedez y Mialocq, 2015; Osti y Bock, 2016). Pero esta línea de investigación presenta todavía margen de crecimiento y concreción en la agenda geográfica española (Romero, 2013). De hecho, son numerosos los ejemplos que al abordar el estudio del espacio rural insisten en idealizar la vida rural y centrarse más en las posibilidades de desarrollo (vía multifuncionalidad, por ejemplo) que en confrontar los problemas estructurales que hacen del espacio rural un territorio de «fácil» exclusión, o incluso, un territorio excluido.

Es lógico pensar, pues, que toda la población que vive en estos espacios se encuentra afectada de una forma u otra y en mayor o menor intensidad, por diversos tipos de vulnerabilidad. Sin embargo, cualquier estudio sobre las dinámicas socioeconómicas recientes del espacio rural debe prestar especial atención a aquellos habitantes con un papel destacado en su sostenibilidad sociodemográfica y, al mismo tiempo, más drásticamente afectados por la crisis de 2008: los y las jóvenes (Camarero et al., 2009; Alcañiz y Querol, 2015). Es decir, un colectivo clave no solo por su papel como generación soporte en tanto en cuanto difícilmente se puede conseguir la estabilidad demográfica del medio rural si en él no se conforman nuevos hogares, o nadie toma el relevo en los ya existentes. Pero también por su evidente capacidad para transformar los territorios en los que habitan, al presentarse como actores sociales y culturales activos por derecho propio (Lafond y

Mathieu, 2003; Gil, 2006). Aparte de constituir, en general, uno de los perfiles de población más vulnerables debido a los cambios y experiencias que habitualmente ocurren en la transición de la infancia a la vida adulta, es decir, la finalización (o salida) del sistema educativo, la entrada en el mercado laboral por primera vez, y el abandono del hogar familiar (de su control y protección) hacia una vida más o menos independiente y autonomía (González, Gómez y García, 2002). De este modo, el presente trabajo se centra en ellos, los y las jóvenes, en establecer cómo la ruralidad puede hacer que se conviertan en excluidos. Al menos, tal y como ellos lo perciben.

## *2. Marco teórico-conceptual y metodológico*

La delimitación de la edad que caracteriza a los jóvenes es compleja. Diversas investigaciones la sitúan entre los 16 y 29 años (McGrath, 2001; González et al., 2014). No obstante, son cada vez más las que prolongan este umbral hasta los 34 años de edad, e incluso 39, debido a las recientes dificultades que esta población tiene para estabilizarse en el mercado laboral y lograr, así, una emancipación que le permita constituir un hogar independiente (Martín, 2005; McKee, Hoolachan y Moore, 2017; Morales, 2017). Este es uno de los aspectos básicos por los que los jóvenes tienen un especial interés para los espacios rurales. Para su delimitación emplearemos aquí la clasificación procedente de los Programas de Desarrollo Rural, marco normativo europeo con clara incidencia en las tareas de intervención y gestión administrativa de los espacios rurales regionales, que no hace más que apoyarse en criterios relativamente objetivos de corte socioeconómico, histórico, cultural, lingüístico, e incluso político (Esparcia, 2012). Todos estos criterios incluyen entre sus contenidos aspectos básicos para el bienestar y el crecimiento personal, es decir, para la inclusión social. Su fallo o ausencia (la exclusión social) supone «una acumulación de procesos confluyentes con rupturas sucesivas que, arrancando del corazón de la economía, la política y la sociedad, van alejando e “inferiorizando” a personas, grupos y territorios de los centros de poder, los recursos y los valores dominantes» (Estivill, 2003: 19-20). La multidimensionalidad de esta definición ofrece un buen respaldo teórico sobre la pluralidad de las problemáticas que pueden afectar actualmente a los jóvenes.

Nuestra investigación toma como caso de estudio el Grupo de Acción Local (GAL) de OMEZYMA (Teruel). Por un lado, estamos ante una de las regiones españolas con más población envejecida, escasa y dispersa; es decir, un espacio rural con independencia del criterio de delimitación elegido en donde los jóvenes son, sin duda por su escasez, el recurso más preciado (Del Romero y Valera, 2015). Y, por otro lado, el GAL de OMEZYMA destaca por integrar fácilmente diversas tipologías de ruralidad: agrocidades (Alcañiz); municipios que se identifican con áreas rurales desfavorecidas, en los que predominan los procesos de desarticulación socioeconómica y declive demográfico (La Ginebrosa, Ráfales, etc.); municipios «de servicios», en los que dichos procesos se han ralentizado, detenido, o incluso invertido al concentrar parte de las actividades del área y atraer así población comarcal (Alcorisa, Calanda y Valderrobres); y municipios que por su proximidad a un centro urbano, experimentan procesos de relocalización de actividades y, en algunos casos, revitalización económica y/o demográfica (Castelseras) (Figura 1).

La información primaria manejada deriva de un total de 55 entrevistas personales semiestructuradas realizadas de octubre a diciembre de 2017. Todas ellas con una duración

media de entre 40 y 60 minutos, y la mayoría registradas en audio (de no grabarse, estas se sintetizaban a mano). La selección de los entrevistados siguió dos cauces: en primer lugar, se entrevistó a los profesionales de la zona de estudio que atienden a las necesidades y demandas del colectivo juvenil (se trabajó así con una muestra estratégica positiva). De este modo, se entrevistó a 18 técnicos (locales o comarcales, vinculados con las administraciones públicas o el tercer sector) relacionados con la cultura y la juventud, con el empleo y la formación, y con la atención social. A partir de aquí se obtuvo, por un lado, un diagnóstico previo sobre la evolución reciente (no más de 10 años atrás) y situación actual de los jóvenes en el área de estudio; y, por otro lado, el contacto con una muestra no probabilística de jóvenes rurales seleccionados por la conveniencia de ajustarse a los perfiles demandados (individuos entre 16 y 39 años, con o sin empleo, y residentes habitualmente en el área de estudio seleccionada).

Como resultado, en segundo lugar, la selección de los entrevistados se completó con 37 jóvenes. Este número finalmente quedó establecido por la «saturación de la información». Las entrevistas de esta segunda fase mantuvieron el mismo guion que el empleado con los actores clave, resultado de la revisión bibliográfica precedente al trabajo de campo, y centrada en cuestiones laborales, de vivienda, formación, ocio, movilidad, redes personales, etc. Todas ellas fueron examinadas siguiendo el análisis de contenidos.

Figura 1. Localización del área de estudio: GAL OMEZYMA (Teruel). Fuente: elaboración propia.



### 3. Resultados preliminares

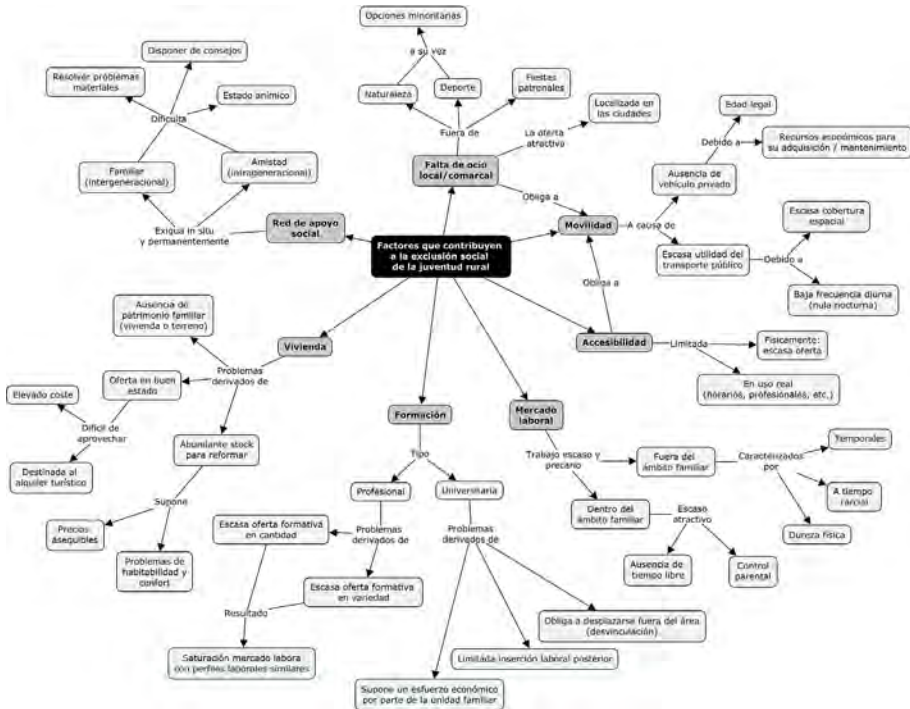
De las entrevistas realizadas podemos extraer, en principio, siete vulnerabilidades de tipo estructural que contribuyen, de forma aislada o combinada, a la aparición de procesos y/o situaciones caracterizadas por suponer la exclusión social de sus protagonistas, en este caso, los jóvenes rurales (Figura 2).

La falta de ocio fuera de las posibilidades que ofrece la práctica deportiva, la naturaleza (opción que no es del agrado de todos/as) y de las fiestas patronales, es uno de los problemas más mencionados. Cualquier tipo de espectáculo o actividad artística capaz de

despertar el interés de la mayoría de los jóvenes, queda relegada a las ciudades. Tan solo discotecas y «pubs» encuentran cierta facilidad para rentabilizar su presencia en el medio rural. Luego, las relativamente escasas posibilidades de ocio no vinculadas a la naturaleza, pasan frecuentemente por el desplazamiento obligado entre municipios.

La movilidad aparece así, como un condicionante (y nuevo inconveniente) que disminuye todavía más el acceso y disfrute del ocio. Dos son los motivos para ello: por un lado, porque muchos jóvenes carecen de vehículo privado debido a que no tienen la edad legal o, aun teniéndola, no disponen de los recursos necesarios para su uso (carnet de conducir), adquisición y/o mantenimiento. Y, por otro lado, porque la alternativa que supone el transporte público resulta poco o nada efectiva (tanto para el acceso al ocio como para el disfrute de otros bienes y/o servicios). No es ya que la oferta de líneas sea reducida y, por tanto, la cobertura espacial sea relativamente débil (de manera que haya poblaciones desatendidas permanentemente). El principal problema que evidencia la movilidad pública es su baja frecuencia, normalmente con una única opción diurna de salida y regreso al municipio, y nula durante la noche. Luego, como manifiestan diversos entrevistados, de poco sirve disponer de oferta de ocio en proximidad si sus horarios son incompatibles con los de los autocares.

Figura 2. Factores que contribuyen a la exclusión social de la juventud rural. Fuente: elaboración propia.



Además de los problemas de movilidad espacial, se hace evidente otro inconveniente que contribuye a la exclusión social en medio rural, la deficiente o nula accesibilidad. Si hubiera una oferta de ocio más numerosa y dispersa en el espacio, las dificultades que atañen a la movilidad de los jóvenes rurales se verían atenuadas, pues de este modo se podría superar con facilidad la distancia que les separa de aquello que quieren consumir (por ejemplo, a pie). Pero en la accesibilidad cuenta igualmente el poder hacerse uso real del bien y/o servicios deseado, de forma que este se considere apropiado (es decir, el horario de la oferta habilite su disfrute, cuente con los profesionales que favorezcan su utilización y/o consumo, etc.). Y como nos trasladan los jóvenes entrevistados, este segundo tipo de accesibilidad difícilmente puede resolverse atendiendo solo a parámetros económicos.

Estos problemas de movilidad y accesibilidad afectan también al uso de cualquier servicio básico (sanidad, servicios sociales, etc.) y, lógicamente, al ámbito laboral. Sin embargo, puesto que parte de la oferta de atención básica es itinerante y alcanza así (con mayor o menor dificultad) a los usuarios finales gracias al desplazamiento de los profesionales encargados de su prestación, las cuestiones vinculadas al mercado de trabajo son las que adquieren mayor interés para los jóvenes rurales. Sin apenas posibilidades de desplazamiento autónomo (ni eficaz) a municipios urbanos con una oferta laboral relativamente más amplia y/o diversificada, muchos y muchas jóvenes ven limitadas sus opciones a los mercados locales de empleo. Esta es una realidad poco o nada atractiva en tanto en cuanto los trabajos más habituales son de carácter parcial, temporal y con una evidente componente física (tanto para ellos como para ellas), aparte de vincularse normalmente a la economía sumergida. Un panorama que se vuelve aún menos seductor para aquellos cuyo empleo se enmarca dentro de la economía familiar, bien por la ampliación del control parental a otras esferas del ámbito doméstico hasta entonces ajenas al mismo, bien por la animadversión hacia una labor (frecuentemente agropecuaria) que se experimenta, a través de las vivencias de los progenitores, como opresora de la libertad personal y familiar.

La formación constituye otro ámbito problemático, en particular la de carácter superior. Primero, porque su obtención directa resulta casi imposible en el medio rural (pese a existir ciertas opciones a distancia, si bien esta no es una alternativa contemplada por nuestros entrevistados); un hecho que obligatoriamente supone la salida de estos espacios, con los procesos de desarraigo que conlleva. Segundo, porque de lograrse esta, su desarrollo posterior es muy complicado debido al tipo de trabajo disponible en los mercados locales de empleo, poco o nada cualificados y en los que, como muchos jóvenes e informantes clave señalan, cuenta más a quién se conoce que la titulación disponible o lo que se sabe hacer. Y, tercero, porque su realización implica un esfuerzo económico cada vez mayor para los jóvenes que se plantean esta vía, no tanto por los costes estrictos del sistema educativo (más o menos becados), sino por los asociados a la vida fuera del domicilio familiar y la duplicación que esto supone.

Como resultado, no todos los jóvenes pueden realizar estudios superiores, en particular si adolecen de cierta dependencia personal y/o los recursos familiares son limitados. En estos casos, como en aquellos en los que ni tan siquiera se contempla su realización, los entrevistados critican la exigua formación post-obligatoria que ofrece el sistema educativo existente en el medio rural. Para ellos, dos motivos son los que limitan ésta a unos pocos ciclos formativos de similares características: i) las escasas opciones de especialización

(apenas hay oferta de grados superiores ni on-line ni físicamente), y ii) la relativamente reducida diversidad de itinerarios disponibles en el espacio (la oferta del área de estudio no se diferencia de la existente en otras áreas) y en el tiempo (sin opción alguna de cambio estructural pese a que las demandas laborales sí que evolucionen). No es de extrañar así que, tras unos años de funcionamiento de los ciclos diseñados, los mercados locales de empleo terminen por saturarse de demandantes con un perfil formativo similar.

De este modo, la existencia de una relativa abundante demanda laboral con un perfil apenas diferenciado contribuye también a mantener la precariedad del trabajo existente, ante la necesidad que muchos jóvenes rurales experimentan de lograr ingresos, y aceptar así cualquier tipo de empleo. En contrapartida, la emancipación y constitución de un hogar independiente se prolonga en el tiempo. En particular, si no se dispone de patrimonio familiar alguno con el que optar a una vivienda, otro de los problemas que algunos jóvenes nos señalan. Sobre todo, acceder a una en buenas condiciones de habitabilidad, ya que oferta suele haber, especialmente en alquiler, pero los precios pueden ser relativamente elevados. El motivo radica en la creciente demanda urbana que existe por los alojamientos de tipo rural, principalmente si el municipio o área tiene un marcado carácter turístico. Fuera de estas opciones, oferta sigue existiendo, aunque esta va empeorando sus características a la vez que, igualmente, desciende su coste. Como resultado, las viviendas disponibles más asequibles adolecen de problemas más o menos graves de salubridad y confort (humedades, escasa iluminación natural, reducido tamaño, deficiente aislamiento térmico, etc.).

El último de los problemas identificado por los jóvenes rurales entrevistados es la ausencia de redes personales de apoyo social, particularmente amigos y, en menor medida, familiares, debido a los procesos de emigración que continúa experimentando el medio rural. La ausencia de un contacto presencial y regular, especialmente intrageneracional, con el que resolver un problema material, atender un estado anímico, o recibir un consejo u opinión, por mucho que las NTIC permitan mayores y múltiples formas de comunicación en tiempo real, es vivida de forma particularmente negativa. Y no solo de forma directa, en primera persona, sino también indirectamente a través de, por ejemplo, los hijos (sobre todo si estos tampoco tienen con quién relacionarse). Así vista, la soledad es una situación transversal a todos los habitantes rurales, que genera un fuerte sentimiento de exclusión social y relacional. Muchos jóvenes regresarán a sus pueblos durante momentos puntuales de su vida, justo cuando sus amistades estén como ellos, temporalmente en ese espacio, o lo requiera alguna circunstancia familiar excepcional. Pero esta vinculación espaciotemporal es sentida como insuficiente para mantener un medio rural vivo.

#### *4. Discusión y conclusión*

Tras la enumeración y análisis de las distintas vulnerabilidades detectadas por los entrevistados capaces de contribuir a la exclusión social de los jóvenes rurales, observamos que en principio no todas son exclusivas del medio rural; problemas de tipo laboral y residencial son también una realidad urbana (Alcañiz y Querol, 2015). Sin embargo, el motivo que subyace a estos inconvenientes, como a otros más específicos de entornos con población escasa y dispersa (exigua oferta de ocio y de formación, y soledad física y relacional) (McGrath, 2001), tienen una componente claramente geográfica y exclusiva



del mundo rural: la reducida movilidad (pública) y la limitada accesibilidad a bienes y servicios de todo tipo (Camarero et al., 2009). Aunque realmente, el carácter desfavorable de ambas variables en los espacios rurales tiene su origen en un elemento nada geográfico, a saber, el marco político e institucional supralocal encargado del diseño (y financiación) de las políticas públicas que afectan a estos espacios (Osti y Bock, 2016). Unas políticas cada vez más caracterizadas por una orientación neoliberal que trasladan toda responsabilidad de funcionamiento territorial al mercado (si este rentabiliza su actividad) y/o a la sociedad (bien de forma directa, bien a través del Tercer Sector), y que se han servido de un contexto económico-financiero regresivo para objetivizar un motivo aparentemente externo a ellas, «la crisis» (Romero, 2013). Esta (crisis) en realidad no ha generado ella sola el aumento de la exclusión social de la población que vive en los espacios rurales. Al contrario, ha puesto en evidencia la debilidad de un sistema territorial abandonado de acciones territoriales por parte de las administraciones públicas más próximas al mismo y con capacidad para actuar sobre él. Porque pese a la supuesta recuperación económica que se estaría experimentando en la actualidad, los problemas derivados de la ausencia de una política pública específica para el medio rural siguen existiendo. Por desgracia, estas mismas políticas (y sus responsables) han conseguido desviar el foco de atención y lograr, así, desaparecer del discurso juvenil sobre la vulnerabilidad de vivir en el medio rural.

#### *Agradecimientos*

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## 44. Portugal 2080: A Desert in Europe?

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### 1. Introduction

Our Planet is experiencing the occurrence of some very striking natural disasters, namely “climate-, weather- and water related hazards, such as floods and droughts” that have been increasing, as identified by Baas (2015). According to UNISDR (2013) the economic losses accounted for about 1.7 trillion US dollars between 2002 and 2013. Moreover, a recent study informs that:

[C]limate change projections suggest substantial warming and increases in the number of droughts, heat waves and dry spells across most of the Mediterranean area and more generally in southern Europe. These projected changes would increase the length and severity of the fire season, the area at risk and the probability of large fires, possibly enhancing desertification. (EEA, 2017).

Portugal is no exception in this panorama. Provisions for climate change in the country for 2080 are already being felt today. Thus the wild fires that blazed in June and October 2017, in particular in the Northern part, are tangible evidence of the tragedy, foreseen by Santos (2002), Kovats et al. (2014) and EEA (2017). But neither the locals, some of them too old to care about their properties or mostly absent, nor the municipalities, that should have been more rigorous in applying the prevention measures and adopt Municipal Plans to Protect Forest against Fire, nor the Government, that proved to be unable to guarantee the security of its citizens, have avoided it.

In our memory 2017 will remain as a tragic year for Portugal, since 115 people died and more than 320 were injured in the wild fires that also caused severe damage to houses, infra-structures and economic activity, namely agriculture, apiculture, hunting, forestry and tourism. All together 440,000 ha in 30 municipalities were affected by the fires, four times more than the average of the last 10 years.

This article aims at understanding why year after year fires destroy the Portuguese forest and threat human lives and what must change to cope with the big challenge that in the future drought and higher temperatures, combined with less humidity and strong winds represent. Pampilhosa da Serra, the most affected municipality in Central Portugal in 2017, since 80% of its forest was burnt, is presented as a case study.

### 2. Theoretical Insights

The fragility of the socio-economic and political situation in so many rural and mountain areas in Europe is generally acknowledged, as Paül (2013) plenty exemplifies. Historically these low density areas, also designated as “remote or deep rural” (Figueiredo, 2007) are dependent on traditional and self-sufficient agriculture, practiced by an ageing population, although in more recent decades, Leader has highlighted some local products

and activities such as rural tourism. Migration has depopulated these areas from their most productive residents, who look for jobs in the cities. The closure of schools, health centres, post-offices and bank agencies aggravate the situation, and offer fewer prospects for those young couples with children who, according to Perrier-Cornet (2002: 260) wish to move into a small village in the near future. Nevertheless, in the last 20 years several authors have identified the emergence of rural change (Hoggart et al., 1995; Ilbery, 1998), others present the practices and processes that underpin it (Woods, 2005) or defy us with new visions of the countryside (Cloke, 2003). But many areas still remain marginal due to ecological factors, demographic and social constraints, or even historic or juridical norms specific to each society, as Molinero (1990) explains.

We are confronted with a reality that results from decades and decades of abandonment, during which investments were mainly focussed in the growth poles, created in order to enhance dynamics aiming at developing the territory, but which were not always successful. Under normal conditions the growth pole model, as defined by François Perroux in the 1960s, would induce a spreading effect and new poles would bring development to distant areas creating a network (Boudeville, 1968). However, it could also happen that a back wash effect would be responsible for the depopulation and decay of the surrounding areas in line with Cumulative Causation Theory (Myrdal, 1957).

In Portugal the massive investment in productive infrastructures along the coastline attracted population from the so-called “interior” (inland areas), unable to find jobs in their own region. This happened in the Sines pole (located South of Lisbon), framed in the petro-chemical industry, which however was not accompanied by the spread effect, due to changes in the political-economic frame in the 1970s and lack of people and investment. Marquis de Pombal, in the 18<sup>th</sup> century, had launched different poles of activity in the far distant inland areas of Portugal, such as the silk industry in Bragança or the wool industry in Covilhã, to quote only two of the most prominent. The current development of the less dynamic areas needs a policy of regional investment comparable to that undertaken by Marquis de Pombal, which allowed the creation of jobs and wealth in regions which today fight against depopulation. These interventions were successful because the Portuguese Government did not only mention abstract objectives. They established defined goals and created the conditions, so that these could be achieved, motivating the stakeholders with the abolishment of taxes, free distribution of mulberry trees, to support the silk industry with food for the silkworms, and inviting foreign specialists in this art to teach the local population, as explained by Sousa (2006).

Climate change is an additional and more recent threat, particularly in Southern Europe, “as multiple sectors will be adversely affected (tourism, agriculture, forestry, infrastructure, energy, population health)”, and “plant species and some economic sectors are most vulnerable in high mountain areas due to lack of adaptation options” Kovats et al. (2014: 1270). This loss of biodiversity should be halted, as Barrow (2003: 220) recommends, since it contributes to aggravate the situation. However, under the climate projection of scenario A2, the reduction in the spatial distribution of several species in the Iberian Peninsula, namely *Quercus suber* (cork oak), is foreseen in 2020 and will be much worse in 2080 (Benito Garzón, Sánchez de Dios and Sainz Ollero, 2008).

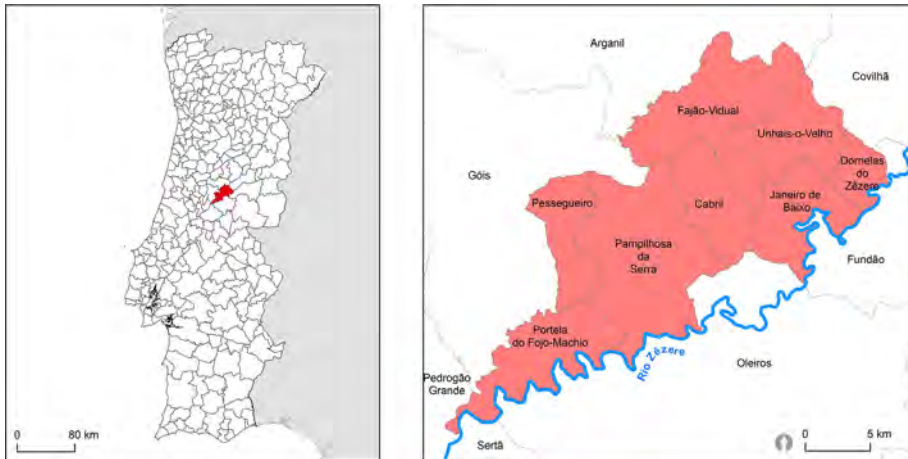
Santos (2017), current President of CNADS (National Council for Environment and Sustainable Development) has recently highlighted the changes that have occurred in the rainfall since 1960, which accounts for a decrease of 40 mm per decade in Southern Portugal. This means more than 200 mm less rainfall since then, which is very significant and is aggravated by higher temperatures, less humidity and strong winds, all of them contributing to an increased risk of forest fire. According to this specialist Portugal is the only country in Southern Europe where the afforested area is decreasing due to the fires.

In the framework of SIAM, a project that simulated climate change under different scenarios for the period between 2080-2100, it is foreseen that temperatures will significantly rise in a situation of increased CO<sub>2</sub> (Santos, 2002: 6). In fact Portugal is already experiencing large periods of drought and high temperatures, which in some places in the South have reached the values presented for 2080. A more recent study comes to the conclusion that, if temperatures increase by 2 °C during the 21<sup>st</sup> century, the areas affected by fire in South Europa will more than double (EEA, 2017). This is particularly preoccupying to a country so dependent on tourism, which will be affected by climate change as Moreno (2010) states.

### 3. Pampilhosa da Serra Case-Study Area

Pampilhosa da Serra is a municipality about 230 km Northeast of Lisbon. It is a mountain area in Central Portugal (Figure 1). Their motto is “Pampilhosa da Serra: inspire Nature”, appealing to the scenic beauty of their territory.

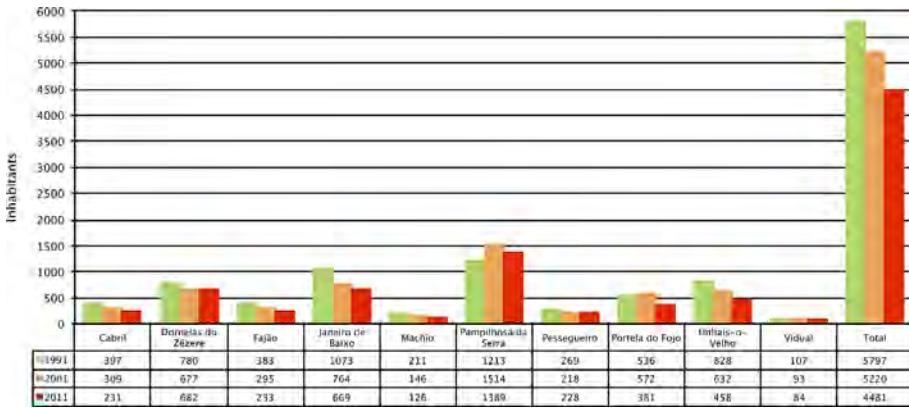
Figure 1. Location of the Municipality of Pampilhosa da Serra and its parishes. Source: Maps by Gonçalo Antunes for the author.



The decline in the resident population in Pampilhosa da Serra started in the 1950s, a depopulation trend since 1884, only interrupted in 1930. In 2011 the municipality had 4,481 inhabitants. (Figure 2), less than half of the population registered in 1864 (9,359 inh.). Today, due to job scarcity, about 30,000 people who were born here work outside the area, many in Lisbon. The 30% who migrated abroad do not come so often; but the

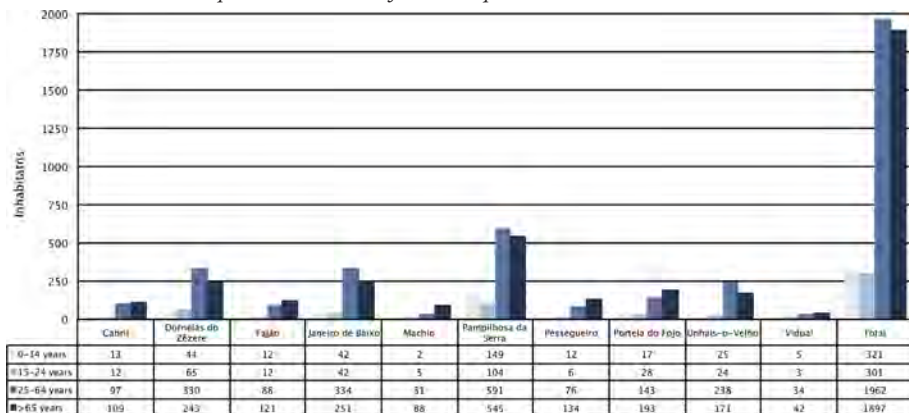
remaining 70% visit regularly the municipality. Since this is an idyllic municipality, in summer, Easter, Christmas and New Year, the population may increase sixfold due to visits and tourists, according with the information facilitated by the local government in 2017 (unpublished).

Figure 2. Resident population in the Municipality of Pampilhosa da Serra, per parishes and in total, 1991-2011. Source: Município de Pampilhosa da Serra, information provided to the author in 2017.



The ageing rate shows the true reality (Figure 3). This justifies the option for afforesting the land and the lack of management that exists. Most of the owners do not even know the borders of their properties, which causes a tremendous problem to the authorities. Indeed, cadastre only covers the half of the municipality.

Figure 3. Resident population according to the age of the Municipality of Pampilhosa da Serra, per parishes and in total, 2011. Source: Município de Pampilhosa da Serra, information provided to the author in 2017.



As a consequence, those who remain, mainly retired and elderly people, are mostly dedicated to agricultural activities, reduce their activity and concentrate it in the vicinity

of the villages. Areas formerly used to produce food are covered by bushes or are afforested. Some of the mixed forests, where species such as pine trees, oak trees and chestnut trees prevailed, are becoming plantations. Concomitantly sheep and goat herds almost disappeared, and thus the traditional preparation of stables for the cattle, baking bread or grilling chestnuts with bushes were abandoned; people also no longer need wood for cooking or heating. An accumulation of flammable material is evident in the forests, since the owners do not manage them and the villages become dangerously surrounded by eucalyptus and pine tree plantations, imprisoning all those who live there. The paper pulp industry needs raw material and they offer a regular income to those who plant eucalyptus or rent their land to produce this specie, which was introduced in Portugal at the end of the 19<sup>th</sup> century in order to dry up the swamps, and proved to grow very quickly under the Portuguese physical conditions. In only 10 years they now need to be harvested and with two additional harvests in the subsequent 20 years without needing to be replanted.

According to the information obtained from the local government in 2017, Pampilhosa da Serra is classified as a “critical nucleus” with a high probability of fires according to the zoning of fire risk. 53.49% of the municipal land area is covered by plantations and 39,59% left natural. According to the local government, in seven years, areas where new plantations of eucalyptus are introduced will be with the threat of fires due to the projections associated with this specie. However, some days after the big fire which occurred last year, some owners insisted on re-planting eucalyptus. The Municipality cannot forbid it, since permission is issued by the Portuguese government agency so-called Institute of Nature and Forest Conservation (*Instituto da Conservação da Natureza e das Florestas*, ICNF).

#### 4. Methodological Considerations

Twenty interviews were carried out on the 4<sup>th</sup> and 5<sup>th</sup> January 2018, in three small villages of Pampilhosa da Serra municipality (Aldeia Cimeira, Aldeia do Meio and Aldeia Fundeira), each a couple of kilometres from the main village, and two interviews outside. In addition, an interview with the vice-mayor and with two municipal forest technicians (GTF-Technical Forest Office) supplied the insights and data necessary to complete the information.

The attendance of several colloquia, tackling the problem of fires, and the consultation of literature were also important. The organisation of a campaign at University Nova de Lisboa, Faculty of Social Sciences and Humanities, in October 2017, in the framework of a research-action, aimed at getting funds to help the people of this study area, culminated with the distribution of fruit trees to the population of the aforementioned villages on the 3<sup>rd</sup> and 4<sup>th</sup> of November 2017, and allowed a clearer understanding of the situation and a close interaction with the people most affected by the fires.

#### 5. Results

The three villages that were studied (Aldeia Cimeira, Aldeia do Meio and Aldeia Fundeira) have about 60 permanent residents, mostly between 70 and 80 years old, and only merely half still work the land. The following analysis is based on the interviews that were carried out.

During the large fires of June and October 2017 they felt they were left alone (in October there were only 45 firemen, 6 fight cars and two command cars). The most capable villagers kept the outer walls of their houses wet to avoid fires starting. In total only about 10 houses burnt, mostly old uninhabited houses, but 500 were affected by the fire in the whole council. According to the vice-mayor 32,000 ha of forest were destroyed, equivalent to 80% of the total, a severe loss to a local economy heavily dependent on forestry.

Fires have always happened. However, as the elderly people in the villages explains, in the past it was easier to fight them, because, among other reasons: they were not so wild, there were many chestnuts trees and strawberry trees (*Arbutus unedo*) and almost no eucalyptus, there was more agriculture, the physical conditions were not so extreme, and there was more population and younger to control it.

According to the interviewees, several factors have contributed to these problems, such as inadequate policies over the centuries. There is a common perception that these areas have not been privileged with investments that would have created jobs. This has contributed to the decrease of the attractiveness of these remote inland areas, that do not offer the wages compatible with those available in the cities. Accordingly, migration to coastal areas, or abroad, has emptied these rural areas of people who used to function as forest watchers.

After the fire, the general feeling was to reduce the existing economic activities, and concentrate on the products that are valued by their families, such as olives, for producing olive oil. Some wish to plant strawberry trees (*Arbutus unedo*) since, besides its commercial value to produce spirits, the species offers some resistance to fire, slowing down its progression and regenerating easily. The interviewees witness that the compensation that they will get for the damages from the Government is very small.

There is a generalised complaint against those who do not clean the bush in their properties and endanger the neighbours. There are some farms, with very good soil, which could be used for agriculture, but people are afraid to rent the land and then lose the rights to them.

Since January 2017 a British couple has been living in the area. They cannot come back to Britain given that they sold out all their properties there. Because of the fires, they have lost everything in the one hectare they owned in Portugal, but the neighbours saved their house. They are well known and wish to stay, since they appreciate the wilderness and the close contact to Nature. Even after the fire there is some sinister beauty in the landscape (Figure 4).

The villagers appreciated the action that was organised through the University to supply them with fruit-trees. It is symbolic, but it cheers them up and encourages them to keep those landscapes alive (Figure 4).

## 6. Discussion and Conclusion

The example of Pampilhosa da Serra illustrates a problem common to most of the interior municipalities, which has to be solved. The recent fires were a tragedy but they can also be an opportunity to make people aware of the individual responsibility that each one of us has towards these parts of the Portuguese territory. It is here that we have important resources such as forests, which can enhance carbon storage and sequestration and



promote air pollution removal, and thus avoid increases in temperature. The combustible materials in the forests, if well managed through biomass centrals, can be an additional income and contribute to a sustainable energy transition model, as defended by Poggi, Firmino and Amado (2015).

*Figure 4. Burnt area view and distribution of fruit-trees in Aldeia Cimeira.  
Source: Pictures by the author (4/1/2018 and 3/11/2017).*



In spite of the new vision intended to value the potential for development found in the “interior”, which embeds the UMVI (Unity of Mission to Value the Interior) launched two years ago by the Government (Ministers Council Resolution n. 3/2016) nothing seems to have changed. It is not enough to recognise the mistake, which was to have despised these areas, it is essential to do as Marquis de Pombal did and take specific actions.

According to ICNF (2016: 6), diversification of forest should rely on autochthonous species, since these reinforce its resistance and global resilience in a context of droughts, fires, pests and diseases, and to match the future evolution of society and markets. The municipalities will have an important role to play in competing with the pulp industry and offering autochthonous species and assistance to the owners of the land. It is also necessary to complete the cadastre, a somehow impossible mission!

The interest of the young in these areas can make a difference — a task that should start at school. In 2007 the municipality launched an initiative called “the forest of my grandson” in the framework of Agenda 21 (Município de Pampilhosa da Serra, 2010: 18). Unfortunately, they got no submissions but the present situation may offer a new opportunity. Thus the most important requirement now is to involve all the stakeholders and take action, planning the rebirth from the ashes, planting autochthonous species and creating jobs (in tourism, nature conservation, quality products, etc.) which may lead these areas to the dynamics they already experienced in the past, since it is here where the protection starts, so that Portugal will not be a desert in 2080.

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## **45. Royalties for Regions in Western Australia: Pork Barrelling or Inspired Regional Development Policy**

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### *1. Introduction and Background*

Since the late 1980s, Australia, like other developed economies, has adopted neoliberal policy principles and more recently, the ‘new’ paradigm, a place-based planning approach to regional development which promotes neoliberal principles. Neo-liberalism, in the regional development context, implies limiting government intervention while promoting free market trade for economic welfare. Since the Global Financial Crisis (GFC) of 2007-08, the OECD has strongly advocated a place-based approach, emphasising local leadership and regional competitiveness (OECD, 2009). Nationally, Australian regional policy is characterised by “modest government investment and locally provided inducements” (Beer, 2015: 22) with weakly developed regional programs and services. Regional development is largely driven by the State and Territory governments, although funding and policy arrangements are highly changeable.

Western Australia is the largest state, by area (as shown in Figure 1), in the Federation. Its economy is largely driven by the agricultural and mining industries, and since 2008, regional development policy has reverted to strong government intervention through major capital investment in infrastructure and services, uncharacteristic of the preceding neo-liberal approach, the national approach and the ‘new’ paradigm. This about-turn occurred due to a hung parliament in 2008; government was eventually formed based on support from the regionally-centred National Party whose pivotal electoral commitment was a Royalties for Regions (RfR) policy. This policy was eventually legislated, quarantining 25 per cent of the State’s mining and onshore petroleum royalties (approximately AU\$1/US\$0.785 billion per year) for additional investments in projects, infrastructure and community services in rural, regional and remote communities — over and above the State government service obligations, “putting money back into regional communities” (Department of Regional Development and Lands, 2011: 9). The regional problem, according to the RfR, is the decline in rural populations at the expense of growth in major centres like the capital city, Perth, which have a broader service offering and higher amenity. RfR was an “explicit attempt to address the perceived disparities between the metropolitan ‘core’ and the regional ‘periphery’” (Ellem and Tonts, 2017: 9), investing more than \$6.9 billion (Au) into a range of economic, social and environmental projects across the state between 2008 and 2017 (Productivity Commission, 2017).

From 2001, Western Australia experienced a mining boom which lasted more than a decade, principally based on iron-ore, fuelled by the rapid industrialisation of China. The level of economic activity this boom generated was unprecedented, both in the level of resource investment as a share of Gross Domestic Product (GDP) and the terms of trade. In addition, the second major export industry, the agricultural sector, has performed

strongly, increasing its contribution to the Western Australian economy by more than \$3 bill (Au) or 8% in four years (Department of Jobs Tourism Science and Innovation, 2017). Despite the strength and the importance of the staples industries, 82% of the state's population of 2.58 million people live in the capital city of Perth. Like many other places in the world, in response to neo-liberal policies, industries have invested in technology and production innovations for more than 40 years so that in many instances, improvements in productivity have not translated to more jobs, but rather, jobless growth. As a consequence, rural communities in Western Australia have experienced a decline in population, in favour of metropolitan centres with more services, employment opportunities and infrastructure. Only ten towns throughout regional Western Australia have populations of more than 20,000 people.

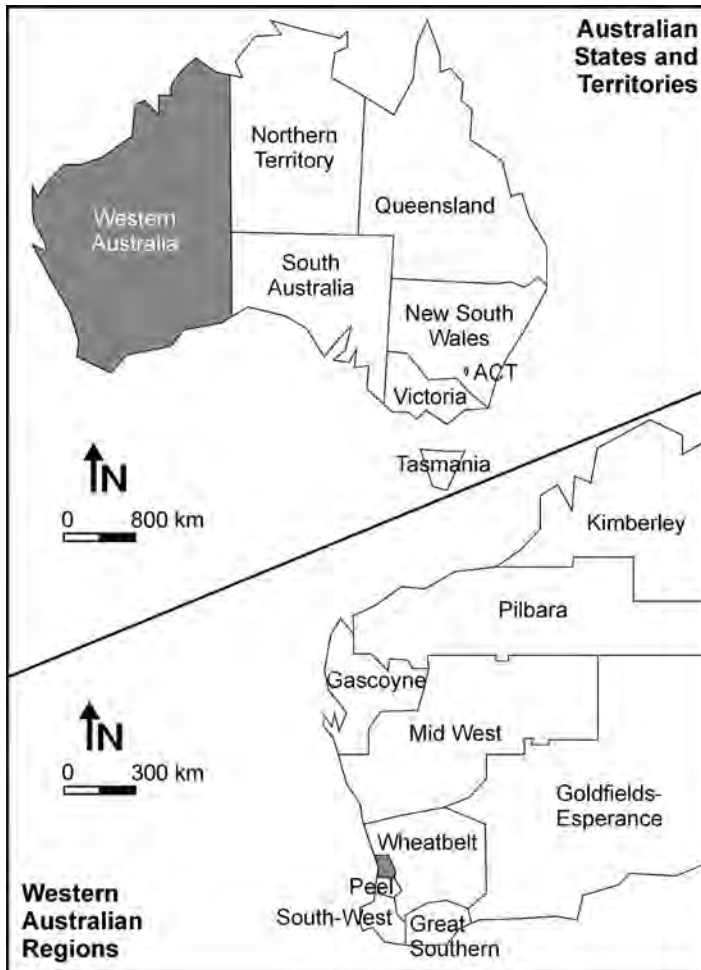
Since the RfR initiative has been both a pivotal electoral policy and a key State budget item, this paper reports on preliminary research to understand the efficacy of the policy and programs in light of the broadly implemented 'new' paradigm development tools.

## *2. Theoretical Insights*

Since 2000, the OECD has promoted regional development in member nations based on a place-based approach which prioritises functional economic areas and conform "strongly to the principles of neo-liberalism" (Tonts and Haslam McKenzie, 2005: 197). According to Pugalys and Gray (2016: 186), the "overarching objective of a place-based approach is to reduce persistent inefficiency and inequality in specific places". It focusses on mobilising underutilised regional potential (regional competitiveness), rather than compensating for the "locational disadvantages of lagging regions" (OECD, 2009: 7). The OECD advocates establishment of organisations which promote collaboration and local planning in line with the "broader neoliberal shift in public policy toward market oriented strategies and tools" (McDonald, 2014: 2). The place-based approach emphasises endogenous asset development, rather than dependence on exogenous investment and transfers (i.e. public funding) and "there is a preference for identifying and exploiting opportunities for growth, rather than ameliorating the consequences of decline" (Tomaney, 2010: 14). To enhance the capabilities and competitiveness of regional communities, cross-jurisdictional planning and regional interdependency are championed through governance processes and integration of land-use policies, infrastructure, business support and public sector organisations to achieve the endogenous potential of regions.

Western Australian policy makers have engaged with the 'new' paradigm for more than two decades, "focusing on identifying the endogenous capacities and assets of regions for future growth" (Dufty-Jones and Wray, 2013: 112) and unlocking regional economic opportunity. At the same time however, as identified by Argent (2013) and Ellem and Tonts (2017), Western Australian regional development policy more recently shows many characteristics of Innis' (1933) Staples Theory with heavy dependence on the export of natural resources and the foreign market income, at the expense of other industry sectors. This is certainly the case for the RfR policy and programs; it is entirely funded by mining and onshore gas royalties, and hence reinforces the dependence on an important staples industry (Ellem and Tonts, 2017).

Figure 1. Location map and Regional Development Commissions set in 1993. Source: Paül (2006: 187).



### 3. Methodological Considerations

Using publicly available reporting documents from census data (Australian Bureau of Statistics, 2017), the Western Australian Auditor General and Western Australian Regional Development Commissions (Paül and Haslam McKenzie, 2015; Figure 1), this paper assesses the efficacy of the RfR to create employment in regional communities in Western Australia and attract population growth, the principle objectives of the policy since its inception in 2008.

### 4. Results

If the success of the RfR programs and policy is to be measured by retention and growth of non-metropolitan populations since 2008, then the results are disappointing

for much of regional Western Australia with the exception of the regions where mining has boomed. However, even in those locations, population growth has been relatively modest, with most of the new workforce long distance commuting from Perth and living in Transit Worker Accommodation for condensed work rosters before commuting home again and recommencing the work cycle after furlough (Haslam McKenzie, 2016). The decline in population growth in country regions, relative to growth of the State as a whole, has continued (Australian Bureau of Statistics, 2017). The only rural areas with significant growth are those bordering the metropolitan area. Excluding these areas, the non-metropolitan population declined by 2.12% from 2006 to 2016, and this was after five consecutive census periods which reported cumulative decline in non-metropolitan populations beyond peri-urban areas (Australian Bureau of Statistics, 2016). In addition, the median income in non-metropolitan areas is consistently lower than in metropolitan areas, and grew at lower rates than those in metropolitan areas, from 2006 to 2011 (Department of Infrastructure and Regional Development, 2016).

Measuring job creation and employment over the period is relatively straightforward, but separating the impact of the RfR program from that of an extremely buoyant economic period in Western Australia's economic history due to the mining boom is more problematic. During the construction phase of the mining boom, the mining and construction industry sectors boomed but this activity tailed off in the 2016 census, as mining projects moved to more steady-state operational phase with considerably less employment. Anecdotally, jobs were created throughout regional Western Australia, mostly through local government although many of these were associated with construction of new infrastructure associated with RfR investments rather than long term job creation (URS, 2014). An audit of the RfR funding programs by the Western Australian Auditor General (2014) was critical of the implementation of projects, citing poor project selection, monitoring, benchmarking and evaluation. Projects were regularly submitted for Cabinet approval and subsequently funded that did not indicate outcomes to be delivered, or demonstrate long-term sustainability (Productivity Commission, 2017). Furthermore, not all RfR's projects were clearly aligned with one or more of the program's objectives and only half complied with the requirement for specific and measurable outcomes.

The state government department responsible for the delivery of RfR programs commissioned an independent survey of RfR funding recipients in 2014 (URS, 2014). Feedback was very positive regarding the collaborative decision making process for projects and their delivery, but respondents' focus, overwhelmingly, was on perceived improved liveability and community vitality through upgraded housing, leisure facilities and community infrastructure, although there were no quantitative instruments to measure those improvements. In terms of employment and job creation, less than half of respondents considered that the RfR program had maximised job creation, and just over half considered the economic base of regional Western Australia had been enhanced. Few respondents were able to report that their community had increased its net population since the introduction of RfR funding.

At government and policy levels there is growing doubt about the ability of the program to meet its objectives. With a new State Labor Government, elected in March 2017, it appears that the RfR program is under increasing scrutiny, given evidence of its failure

to achieve its population growth objectives in particular. Simultaneously, State finances are under pressures as the mining boom transitions from an intensive construction and investment phase to less intense operational production. Electorally, the Labor government is considerably less committed to the non-metropolitan areas, with more elected members from the city than from regional electorates (Davies and Tonts, 2007) although, of the non-metropolitan electorates, eight of the 13 seats were secured by the Labor government.

### *5. Discussion and Conclusion*

Conceptually, Western Australia planning and regional development agencies largely reflect place-based planning approaches, being generally long term orientated, multi-sectoral and informed by endogenous knowledge, consistent with the 'new' paradigm. However, when considering the RfR-program as a high-level investment regional development strategy, it is interventionist and a reversion to the 'old' paradigm.

The RfR programs invested in infrastructure, facilities and even services which had previously been withdrawn or centralised in line with neoliberal principles. These investments somewhat ameliorated the discontent expressed by non-metropolitan community leaders and residents who argued the state's and even the nation's wealth was generated in their locales but they received few, if any benefits (Haslam McKenzie, 2013). The RfR program funded projects that enhanced amenity, liveability and in some cases, augmented essential government functions in communities which for decades had been overlooked due to their decline in competitive and comparative advantage (O'Connor and Tomlin, 2017; Päül and Haslam McKenzie, 2015). Decisions regarding which projects were funded did not adhere to the usual neoliberal principles (Western Australian Auditor General, 2014). It has also been suggested that funding decisions in these non-metropolitan locales were instrumental in securing government (O'Connor and Tomlin, 2017) for the more conservative Liberal National Parties especially after legislation was passed in 2005 which reformed the electoral system in Western Australia, removing the electoral advantages previously afforded non-metropolitan electorates (Davies and Tonts, 2007; Phillips, 2009). In the 2008 election, the National Party won only four seats with 4.84% of the vote concentrated in the non-metropolitan areas, whereas in the 2013 election, the National Party won seven seats and more than doubled the vote in the non-metropolitan area (Parliament of Western Australia, 2013). In the run-up to the 2017 state election, the Labor Party made thinly veiled accusations of pork barrelling and promised to 'even out' RfR funding allocation away from the mining and agricultural areas, dominated by Nationals Party voters, to south west communities which were subsequently won by the Labor Party (O'Connor and Tomlin, 2017).

Since the Labor Party won government in 2017, RfR funding has been curtailed throughout Western Australia in response to straitened budgetary conditions. Despite non-metropolitan dissatisfaction with the Labor Party decisions to re-assess RfR funding allocations and accusations that Labor Party electorates are predominantly metropolitan and must raid RfR funds to deliver election promises, there is little empirical evidence to show that the RfR projects funded from 2008-2017 made a tangible difference to



increasing both population and employment opportunities in non-metropolitan Western Australia.

As time goes on, the program is attracting criticism for effectively subsidising small local government-based projects, many of which underwrote unaffordable infrastructure, testament of the 'old' paradigm. Various media reports (Borrello, 2017; O'Connor and Tomlin, 2017; Weber, 2017) have highlighted the perceived perverse outcomes of the program, particularly the construction of large infrastructure projects such as swimming pools, leisure and sport facilities and community housing, which are now the responsibility of small local government authorities with limited earning capacity to maintain these large and expensive assets.

In excess of Au\$1bill was spent in the 2008-2017 timeframe on the Pilbara region, the epicentre of the most productive and profitable iron-ore mining operations, to provide housing and key infrastructure such as hospitals and leisure facilities, upgrade existing infrastructure and services which during the boom period struggled to cope. Now, as the construction boom has shifted to the operational phase and international markets have tempered, so too has demand in the Pilbara with many miners preferring to persist with long distance commuting from Perth and other regional centres rather than permanently relocating with their families to remote communities in the Pilbara. As a consequence, new housing lies vacant, a refurbished swimming pool in Port Hedland remains closed and some education assets are under-utilised.

Elsewhere in regional Western Australia, the amenity has improved in many localities where numerous town beautification projects have transformed tired assets and made them more welcoming places, but without new employment prospects, RfR projects have not achieved their goals of creating job opportunities and attracting people out of the capital city and revitalising these places with a population boost. As a regional development strategy, it is difficult to argue RfR as a success. It appears that government intervention has not interrupted the pervasive influence of free market conditions or the declining population in regional areas while the Perth population continues to escalate. Furthermore, the median age of non-metropolitan communities has increased, with younger people moving to the city for work and greater lifestyles choices. It would appear, despite its best efforts, the efficacy of the 'old' paradigm has been usurped by the 'new'.

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## **46. Redes sociales y desarrollo local en áreas rurales: un análisis comparativo (Serranía de Cuenca y nordeste de Castellón, España)**

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*Social Networks and Local Development in Rural Areas: A Comparative Analysis (Serranía de Cuenca and north-east of Castellón, Spain)*

The aim of this study is to analyse the social networks in the context of the implementation of LEADER programme. The study focusses on Relational Social Capital through Social Network Analysis, using measurements for capital assessment. The comparative analysis which has been carried out in two areas (Serranía de Cuenca and north-east of Castellón, Spain) has allowed us to demonstrate how administrative changes affect the management of the local action group and the pre-existent social network.

### *1. Introducción*

A pesar de que el programa LEADER ha generado impactos positivos mejorando la calidad de vida rural, ha sido utilizado en algunas ocasiones como instrumento de poder por parte de ciertos sectores sociales, tanto locales como externos al territorio (Esparcia, Escribano y Serrano, 2016a). Este hecho se va a ver reflejado en cómo esos sectores sociales se relacionan con el resto, por lo que esta investigación se centrará en el estudio de las relaciones sociales presentes en territorios LEADER. Para ello, sometemos a contraste las siguientes hipótesis: 1) el mantenimiento del capital social está condicionado parcialmente al contexto institucional y político y 2) el programa LEADER ha contribuido a un capital social relacional significativo.

### *2. Consideraciones teóricas*

La dimensión social en los proceso de desarrollo territorial es muy importante (Woolcock, 1998; Shucksmith, 2000; Moyano, 2001; Cheshire, Esparcia y Shucksmith, 2015; Esparcia, Escribano y Serrano, 2016a) ya que un alto grado de confianza entre individuos, reduce los costos de transacciones y facilita el flujo de información, al mismo tiempo que la cooperación ejerce de ventaja esencial para el desarrollo territorial. LEADER otorga cierta importancia a este enfoque mediante su metodología y, por lo tanto, puede modificar este sistema de vínculos sociales, pero ¿cómo podemos medir o caracterizar la transformación de las relaciones sociales?

El concepto de relaciones sociales puede integrarse dentro de la definición de capital social que, a diferencia de otros capitales, es algo intrínseco al territorio. Dentro de esta teoría existen diferentes perspectivas, pero desde nuestro punto de vista, para abordar el análisis de las dinámicas rurales es útil la concepción de Bourdieu (1986), uno de los principales autores en este campo, que nos señala que el capital social son recursos —actuales o potenciales— inherentes a la red de relaciones. Este autor considera dichos recursos

como fuente de poder, prestigio, todo ello como parte de sistemas sociales dinámicos a través de los vínculos entre el capital social con el capital económico y cultural.

### 3. *Consideraciones metodológicas*

Las relaciones sociales son las que constituyen la principal fuente de capital social (Marquardt, Möllers y Buchenrieder, 2012), por ello y para poder resolver las hipótesis planteadas, utilizaremos el Análisis de Redes Sociales (ARS), un enfoque cuantitativo por medio del cual se obtiene la estructura social (Molina, 2001).

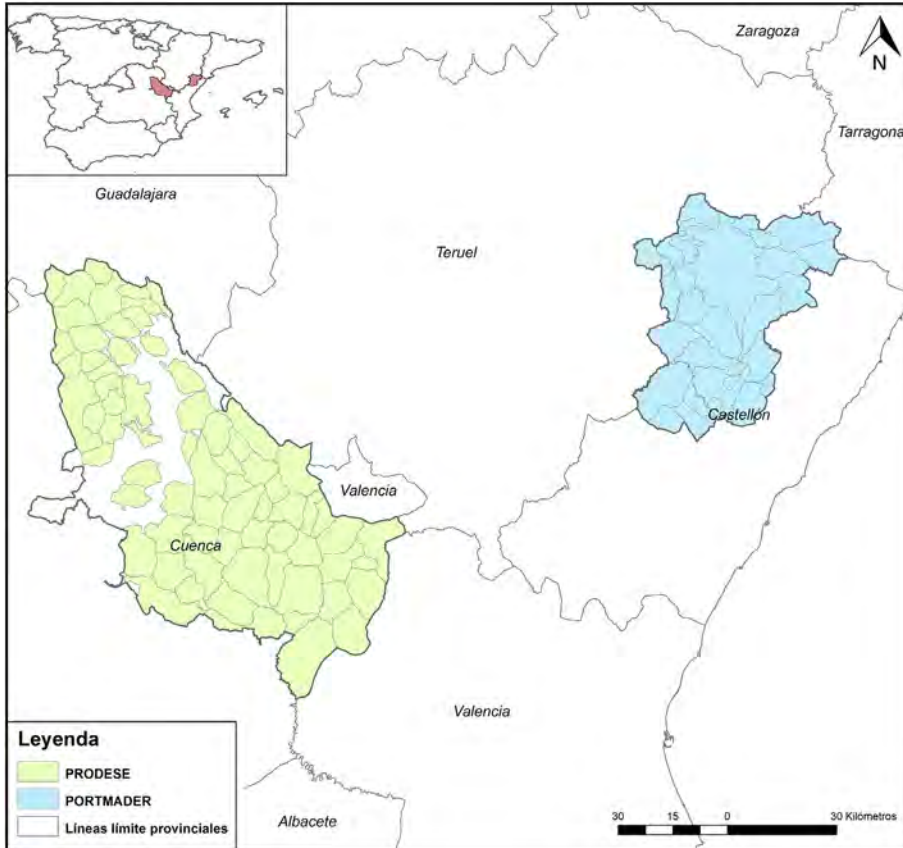
A partir del trabajo de Borgatti, Jones y Everett (1998), entre otros, sobre los indicadores del ARS y el capital social, junto con el software UCINET (Borgatti, Everett y Freeman, 2002), se trabajará la información extraída mediante enfoque sociocéntrico sobre datos relacionales dirigidos con matrices no simétricas. Las últimas investigaciones publicadas con similar metodología serán nuestro punto de referencia a la hora de analizar los resultados (Esparcia, Escribano y Rubio, 2013; Esparcia y Serrano, 2016; Esparcia, Escribano y Serrano, 2016b).

Se seleccionó un listado de actores considerados relevantes desde el punto de vista de los procesos de desarrollo local a escala supramunicipal en cualquier sector (económico, social, técnico o institucional). Un método fiable para esta selección es la realización de entrevistas en profundidad con los gerentes de los Grupos de Acción Local (GAL), que por su trayectoria podían permitirnos una aproximación a tales actores. Sin embargo, desde el equipo de gerencia del GAL PORTMADER no lo facilitaron, con lo que fue necesario realizar un método alternativo: a partir del listado de miembros de la Asamblea General construimos otro listado, complementándolo con potenciales actores relevantes en función de los diferentes perfiles a los que suelen responder (miembros del GAL, responsables de organizaciones sociales y económicas, políticos con cargos en LEADER, etc.). En ambos territorios, introdujimos actores en el listado cuando habían sido citados por tres o más actores durante las entrevistas, con el fin de integrar todos los posibles actores relevantes. Estos son clasificados según el perfil socioprofesional: técnicos (agentes de desarrollo, socioculturales o de igualdad), públicos (representantes políticos), económicos (empresarios) y sociales (involucrados en movimientos sociales o entidades).

Se realizaron entrevistas semiestructuradas cara a cara (octubre 2013-febrero 2014), adaptándose un cuestionario base testado previamente (Esparcia, Escribano y Rubio, 2013). La estructura del cuestionario es la siguiente: a) discurso sobre el estado del territorio; b) generador de nombres (relación de personas con aportación destacada al desarrollo del territorio) y evaluación de las relaciones; c) confianza y apoyo; d) evaluación del listado inicial; e) generador de posiciones. Los indicadores aquí presentados se realizaron con el generador de nombres, complementando con información de otros apartados. Se realizaron 28 entrevistas en el GAL PRODESE y 58 en el GAL PORTMADER.

Para seleccionar los territorios de estudio (Figura 1), se contó con dos zonas similares en ciertas condiciones geográficas y sociodemográficas, marcadas por dinámicas representativas del medio rural español (pérdida de población, envejecimiento, baja densidad de habitantes, etc.) y comenzando ambos en LEADER I. Sin embargo, están enclavadas en diferentes entornos institucionales, con el fin de contrastar los resultados obtenidos y dotar a la investigación de un valor añadido.

Figura 1. Mapa de localización. Fuente: base cartográfica del Instituto Geográfico Nacional.



El GAL PRODESE (zona 1), ubicado en la Serranía de Cuenca, posee una densidad de población de 3,5 hab./km<sup>2</sup> —de las más bajas de España—, fruto del éxodo rural sufrido y del tamaño de su superficie. Su economía, basada tradicionalmente en el sector primario e industrial, se centra ahora en el sector servicios. Lo mismo ocurre en el GAL PORTMADER (zona 2), situado en el nordeste de la provincia de Castellón, aunque este territorio se ha caracterizado por una industria manufacturera que, hoy en día, junto con el aumento del turismo en la zona, otorga un mejor panorama socioeconómico que el existente en la zona 1.

#### 4. Resultados

A partir de los indicadores seleccionados, reflejados desde dos escalas —grupale e individual— podemos caracterizar el estado del capital social relacional. Observando la Tabla 1 —nivel grupal—, se aprecia que la zona 2 se encuentra con la mayor parte de indicadores en niveles bajos.

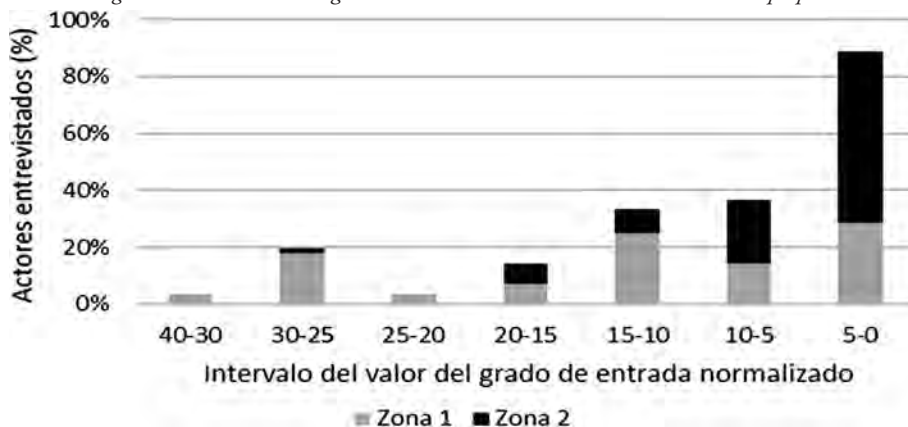
Tabla 1. Principales indicadores con resultados normalizados. Fuente: elaboración propia.

Indicadores	Interpretación del indicador	Zona 1	Zona 2
Densidad	Proporción del número de personas que están conectadas dentro de la red respecto al total de relaciones posibles. A mayor densidad, más posibilidad de contacto entre actores.	13,50%	5,00%
Distancia	Promedio de las conexiones a través del camino más corto. Cuánta mayor sea la distancia, más costosa será la conexión entre actores.	2,72	3,38
Grado ( <i>out</i> )	Capacidad de los actores de acceder a recursos. Cuantas más relaciones tenga un actor, más posibilidades de acceder a recursos.	28,26%	12,65%
Grado ( <i>in</i> )	Mide la valoración y el conocimiento —la popularidad— que tiene el resto de actores hacia cada actor.	24,42%	23,36%
Cercanía ( <i>out</i> )	Identifica el conocimiento y acceso que los demás tienen de cada actor	22,30	3,64
Cercanía ( <i>in</i> )	Refleja la proximidad de los actores al centro de la red. A niveles más altos, mayor cercanía al centro de la red.	26,90	5,38
Intermediación	Cantidad de veces que ego aparece a lo largo del camino más corto entre dos actores. Muestra el control potencial del flujo de la red.	20,87%	14,32%

La densidad de la red y la distancia nos revelan valores negativos para el capital social, ya que los actores de esta zona 2 deben realizar un mayor esfuerzo para ponerse en contacto con otros actores, cuando para la zona 1 es menor.

Si observamos el grado de entrada, apenas existen diferencias entre territorios —ambos en niveles medio-bajos—, pero al realizar un análisis individual se obtiene lo siguiente (Figura 2): dentro del intervalo de 20-40, en la zona 1 se incluye el 25% de los actores —económicos, técnicos y públicos, en ese orden—, mientras que en la zona 2 es de un 1,72%, que equivale al presidente del GAL.

Figura 2. Distribución del grado de entrada individual. Fuente: elaboración propia.



El grado de salida se corresponde a un 30% en la zona 1, donde destaca la figura de la gerencia del GAL con un índice muy alto del 70,74%. Mientras que para la zona 2 corresponde a un 12,6%, donde son los agentes técnicos los actores con mayor índice y apenas llegan al 18% cada uno. Aquí el presidente del GAL es uno de los actores con el grado de salida más bajo de la red: cabe señalar que nos encontramos ante un problema de confianza por parte del entrevistado a la hora de realizar la entrevista, ya que dada su trayectoria en LEADER debería aparecer con un alto grado de salida.

La cercanía de entrada es baja para la zona 2, oscilando alrededor del 5% donde los actores con mayor índice son de carácter público —el más alto es P30 junto con otros miembros del GAL— y técnicos locales. Mientras, para la zona 1 el grado de entrada es de 26,9%, la mayoría son de perfil económico —muchos miembros del GAL— y técnico —gerente GAL y ADL—. En niveles de cercanía muy baja, sólo se encuentran un 7% de actores en la zona 1 mientras que para la zona 2, casi el 40% de los actores tienen niveles muy bajos. La cercanía de salida sigue la misma tendencia grupal, pero a nivel individual en la zona 1 hay una representación de todos los perfiles en los valores más altos mientras que en la zona 2 son mayoritariamente técnicos y públicos.

En el caso de la intermediación, las dos áreas se encuentran en niveles similares: 14% para la zona 2 y 20% para la zona 1, con actores técnicos como individuos con mayor grado. En la zona 1 también destacan otros miembros del GAL —económicos— y el gerente y en la zona 2 algunos vocales del GAL —políticos—. Para todos los indicadores en ambos territorios, los resultados sobre actores sociales son siempre bajos, a pesar de su presencia en las asambleas generales (30% de los miembros en cada GAL).

##### *5. Discusión y conclusión*

Rescapitulando, tras el análisis socioeconómico, a pesar de ciertas similitudes entre territorios hemos detectado que la zona 1 se encuentra en unas condiciones menos propicias para el mantenimiento del capital social, mientras que en la zona 2 mejoran levemente. Por otro lado, podemos establecer que dentro de estos territorios el stock de capital relacional es significativamente diferente ya que, a pesar de que la zona 1 tiene un escenario menos favorable, se encuentra en un término medio-bajo en cuanto al stock del capital social, mientras que la zona 2 —con una leve ventaja en ciertas cuestiones— ronda valores más bajos en la mayor parte de indicadores. La explicación de esta incongruencia la encontramos en el modelo de gestión de las políticas de desarrollo, lo que ha hecho que:

- Con niveles de accesibilidad y dispersión geográfica más bajos en la zona 1, ésta posee niveles superiores respecto al capital social en cuanto a la densidad y distancia, fruto de una mayor cohesión de la red —tal y como se refleja en el resto de indicadores—. La zona 2 se encuentra en los niveles más bajos de densidad y mayor distancia si lo comparamos con otras zonas analizadas, a pesar de tener una densidad de habitantes más alta, menor extensión y poseer una estructura urbana con más núcleos intermedios, que ejercen de conexión entre las diferentes comarcas.
- En la zona 2 existen altas concentraciones de grado de entrada en pocos actores, lo cual podría reflejar cierto liderazgo pero se transforma en poder ya que un sólo actor es el que ejerce control en la red social. Estos resultados concuerdan con el mayor número de proyectos financiados de carácter público (68% para el periodo



2007-2013 y 25% para LEADER+) y la predominancia de agentes políticos en los órganos de decisiones del GAL en la zona 2 (53% en zona 1 y 30% en zona 2), lo que merma completamente las iniciativas privadas locales. Cuando se les pregunta por la persona con la que contactarían para la mejora de su pueblo, en la zona 1 el gerente aglutina las respuestas, junto con el presidente de diputación. Mientras, en la zona 2 sólo destacan al presidente de la diputación.

- En la zona 1 existen pocos actores con índices bajos de cercanía lo que refleja proximidad entre todos los actores y menor dependencia hacia los más centrales. En cambio, para la zona 2 la red pierde poder de decisión y colaboración, ya que más de un 40% de actores posee valores muy bajos, es decir, se sitúan en la periferia y, por tanto, el acceso a los actores más centrales es costoso y la información llega alterada.
- Los actores con un alto grado de intermediación están en posición de filtrar y distorsionar la información. Aquí son actores técnicos en gran medida, pero con diferencias: en la zona 1 es la gerencia del GAL y otros miembros de la junta directiva los de mayor intermediación, mientras que en la zona 2 son técnicos a escala local. Esto evidencia falta de estructura técnica, de decisión y de difusión en el GAL PORTMADER.

Hanneman y Riddle (2005) sintetizan ciertas medidas de centralidad deduciendo el poder desde las posiciones ventajosas correspondidas con los actores con altos niveles de grado, cercanía e intermediación. En la zona 1 las obtienen 4 miembros del GAL (3 de la junta más el gerente) y un actor social; mientras, en la zona 2 son dos actores con perfil profesional técnico, dos públicos y un económico. Uno de los dos actores públicos —político, presidente del GAL— vinculado a LEADER, lo interpretamos con una posición de poder y prestigio que se deriva de la combinación de su papel en la red, el comparativamente elevado valor para el grado de entrada, cercanía e intermediación y por la diferencia en los indicadores individuales con el resto de actores. Además, en la zona 2 la figura de la gerencia no tiene presencia —no ha sido nombrada agente clave por ningún actor— por lo que éste adquiere aún más poder.

Esta red poco articulada se debe a que en la Comunidad Valenciana, desde el periodo LEADER 2007-2013, la Generalitat respecto a la gestión del programa ha actuado en contra de la filosofía LEADER (Buciega y Esparcia, 2013): el poder de decisión emana del gobierno autonómico y no de la población local, confiriendo al poder público la administración de dichos fondos. Esto es contradictorio ya que LEADER se basa en la metodología *bottom-up*, una estructura de cooperación y de articulación desde los actores.

Tal y como hemos visto reflejado aquí, la mayor desestructuración social en la zona 2 ha provocado la concentración del prestigio en pocos actores, quedando el resto de actores relevantes en posiciones marginales. Tras estas reflexiones, podemos afirmar que las hipótesis planteadas acerca de la creación de capital social a partir del programa LEADER y el condicionamiento de su mantenimiento por el contexto institucional y político se consideran verdaderas.

En este contexto, será más difícil que las estrategias de desarrollo futuras salgan adelante ya que tras el desmantelamiento del sistema de gestión del GAL durante 2007-2013

en la Comunidad Valenciana, las relaciones sociales que existían se han deteriorado, igual que la confianza entre actores y en el propio sistema.

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## 47. Sustainable Mining in Western Australia: Oxymoron or Paradox?

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### 1. Introduction

The parameters selected for our consideration of mining and sustainability are deliberately large, namely the 2.5 million square kilometres of Western Australia, and the period from that state's gold rush, which commenced in the late nineteenth century, to the present day. One reason for the selection of these broad parameters is to emphasise the importance of both temporal and spatial scales in any assessment of the apparently oxymoronic and/or paradoxical nature of the term "sustainable mining".

In physical terms, mineral deposits are finite and therefore their extraction can be construed as unsustainable. Nevertheless, and perhaps paradoxically, the demand for, and therefore the prices of, various minerals and the technologies of mineral extraction and use, are human phenomena that are in constant states of flux and they therefore generate ongoing and sometimes sudden changes in the levels and locations of mineral exploration and thereby the economic sustainability of individual mines, quarries and wells. In this abstract, we therefore consider in what terms and at what scales sustainable mining in Western Australia can be considered to be an oxymoron and/or a paradox. In so doing, we also use this example of an exceptionally volatile human activity to raise the broader question of whether, in the context of exceptionally remote and sparsely populated areas,

sustainability is best viewed as the maintenance of stasis or as planned and, ideally, constant and successful adaptation to change.

## *2. Theoretical Insights*

In viewing mining through the lens of sustainability theory, we inevitably relate the Western Australian experience in this regard to the concepts of the triple, or even quadruple, bottom line and of intergenerational equity (World Commission on Environment and Development, 1987). However, we note that assessments of the sustainability of mining in Australia diverge widely depending on the relative weightings allocated to sustainability's three components, as evidenced by the contrasting titles of major works on this topic by two doyens of Australian history, "The Rush that Never Ended" (Blainey, 2003) and "Spoils and Spoilers" (Bolton, 1992), volumes that, respectively, privilege the economic and the environmental aspects of sustainability.

More specifically in this paper, we seek to relate our evaluation of the sustainability (or otherwise) of mining in Western Australia at various times and in various locations to the concept of scale (Leitner and Miller, 2007; Neumann, 2009). In doing so, we seek to avoid what Collinge (1999) terms "scalar fixes", or the privileging of activities at one scale over those at others. We see the differing mining activities that have taken place in Western Australia as having impacts of relevance to sustainability over multiple spatial and varying temporal scales. Therefore, our intention is rather to identify, over various time periods and spatial scales, how mining activity in Western Australia can be construed as more or less sustainable.

## *3. Methodological Considerations*

This extended abstract is a review/overview. As such, it incorporates material obtained from a variety of sources using a variety of methods. These include newspaper and other archives (Latchford, 2017), personal recollection and reflection (Lee, 2017), official documents and statistics (Tonts, Martinus and Plummer, 2013), company records (Bertola, 2003) and interviews (Haslam McKenzie and Hoath, 2017) as well as desktop research, all of which have been subjected to analyses using a range of quantitative and qualitative techniques.

## *4. Results*

Mining activity in Western Australia has, to date, occurred in three distinct periods and forms and may be currently transitioning to a fourth. Firstly, in the late nineteenth century, a number of gold discoveries were made, culminating in large finds at Coolgardie (1892) and Kalgoorlie (1893) in an arid environment approximately 600 kilometres inland from Perth, the colonial capital. These finds precipitated a gold rush by prospectors, which led to the establishment of numerous, though frequently ephemeral, mining settlements. The largest, Kalgoorlie, grew to almost 7,000 inhabitants within a decade of the first gold discovery there. While most of these settlements boomed and bust as the gold was worked out locally, where larger deposits were located local and, eventually, international mining companies moved in. The 'golden mile' deposits near Kalgoorlie proved

to be the most extensive and the town has grown into a regional centre with a current population of approximately 30,000.

Secondly, extensive iron ore deposits were discovered in the remote Pilbara area of the North West in the mid twentieth century. Following the lifting of national government restrictions on the export of iron ore in 1960, major international mining companies moved in developing not only large scale mines but also railway networks and port facilities and the towns that serviced them.

Thirdly, and from the 1970s onwards, oil and gas discoveries were made on the continental shelf offshore from the Pilbara. International corporations began to develop these resources from the 1980s using fly in fly out (FIFO) methods to place the labour force on the rigs. From this time on, terrestrial mining companies also began to use FIFO techniques as a means of staffing their mining operations in remote areas of the state.

Finally, in the twenty first century, several major corporations have been developing robotic mining techniques. Rio Tinto now uses a control centre near Perth Airport to oversee driverless trains, trucks and drills in use at their newer Pilbara mine sites over a thousand kilometres away and, in 2017, the company commenced the retrofitting of trucks at their older mines from driver to driverless operation. The following subsections provide summaries and comparisons of the various sustainability impacts experienced across these four time periods.

#### 4.1. Environmental

The first goldmining operations were small scale, prospector-based initiatives and their direct environmental impact was highly localised and relatively insignificant. However, the most successful mining centres experienced considerable population growth and merited the construction of major industrial and public buildings and infrastructure, most notably the 600-kilometre-long railway from Perth to Kalgoorlie and the water pipeline serving the town.

Nevertheless, these structures were of limited extent in comparison to the size of the state and it was the indirect consequences of mining that had the most extensive areal impacts. By the early twentieth century, a network of timber railways extended tens, if not hundreds, of kilometres from Kalgoorlie supplying the town with pit props, fuel for gold ore processing and domestic firewood (Bianchi, Bridge and Tovey, 2008). Camels, used for transport until the railway was constructed, were released into the bush on its completion, where they thrived and multiplied and have provided widespread and ongoing disruption to the regional ecological system.

Over the last century, mining activity has massively increased in scale and diversity but, in a largely arid state with limited fluvial dissemination of mine spoil, its environmental impact still remains relatively localised, certainly in comparison to that of agriculture. Nevertheless, environmental concerns remain over threats to locally significant landscapes, and ecosystems ranging from temperate forests to coral reefs.

#### 4.2. Economic

Extraction from individual mineral deposits is inherently unsustainable in economic terms and the state's numerous abandoned mine sites and ghost towns provide clear evidence of this. Nevertheless, Western Australia contains numerous mineral rich regions

and mining can be sustained at a regional scale for considerable periods. After more than a century, gold is still being profitably mined in Kalgoorlie where former spoil heaps have been worked over using new gold extraction technologies and a 'super pit' is now being mined at a scale and at depths undreamed of by the first prospectors. Six decades on from the first iron ore mining operations in the Pilbara, companies have abandoned entire mine sites and, in some cases, even towns, but are still using rail and port networks initially developed to support mines tens, if not hundreds, of kilometres from the sites of their first operations.

Over time, and at the larger spatial scale of the state, the economic sustainability of mining operates in a variety of ways. The state possesses an exceptionally wide range of economically important minerals. Declines in the value of one may be compensated for by increase in the value of another. The value of gold, for example, is counter cyclical and the industry prospered in the depressions of the 1890s and 1930s. Prospectively, Western Australia has major reserves of lithium, a mineral that is in increasing demand due to recent advances in battery technology and the global transition to renewable energy sources.

What this positive economic picture at the state scale obscures are the consequences of the violent changes in local fortunes as mines and their associated settlements boom and bust (Tonts, Martinus and Plummer, 2013). Indeed, a settlement hierarchy has long existed through which wealth flows outward from the mine sites to the world. The, usually small, mining towns experience the most serious economic and demographic vicissitudes, often going from boom to obliteration in a matter of decades or even years. The larger regional service and transshipment centres, such as Kalgoorlie in the Eastern Goldfields or Port Hedland in the Pilbara may experience major shifts in property values and business profitability as mining operations in their regions wax and wane but their more diversified service economies have enabled them to remain sustainable throughout. Perth, as the state capital, by far the largest city and the major gateway between Western Australia and the wider world, does experience some degree of mining industry induced boom and bust but it has nevertheless grown from a population of ca. 50,000 at the beginning of the gold rush in 1890 to ca. 2 million today.

#### 4.3. Social

Over our study period, mining has become progressively more capital and less labour intensive. Even though the state's mineral output has grown immensely in volume, value and diversity, the relative decline in the demand for labour at mining locations has had a significant impact on the social sustainability of these settlements. The first gold towns had a predominantly male and youthful population. While this led to the rapid development of pubs, breweries and brothels in these settlements, the spirit of the age was also conducive to the establishment of mechanics institutes, places of worship and sporting facilities as at least some of the towns became more established. The ethnic diversity of the first settlers, including Chinese, and 'Afghan' cameleers from South Asia as well as British and a variety of continental Europeans presented some problems (Pascoc and Bertola, 1985), as did the presence of all these settlers to the Indigenous population. In contrast to this, Latchford (2017) describes the interest shown by the various cultural groups in

each other's musical, dance and dramatic customs. The communities of the state's older mining towns remain both vibrant and turbulent to this day.

The more long-lived gold mining towns eventually acquired schools, hospitals, shops and more demographically balanced populations in terms of age and sex, and thereby a sense of permanence. By contrast, the 'company towns' set up in the Pilbara from the 1960s were, from the start, intended to be family friendly and to provide an approximation of the services available in an Australian capital city suburb. Lee (2017) describes the strong community spirit and the wide range of services provided at Goldsworthy, the first of these towns, for a mere 700 residents. These company towns offered a sense, and even a reality, of social sustainability to their inhabitants. But Goldsworthy only existed from 1965 to 1992, a not atypical lifespan for towns of this type. As old mine sites were worked out and new ones developed, the mining companies became less inclined to incur the considerable expense of accommodating and providing a range of services for the families of their workforce in a harsh and remote environment. The FIFO system, with temporary accommodation and equally basic local services provided close to the mine sites for employees only, was not only cheaper, it was more in line with other social and political changes taking place in the late twentieth century, including declines in the proportion of single income families and in trade union power and influence. Couples were unlikely to both find work in the same small mining community and workers became less able to negotiate for better working conditions or work-life balance.

Debate continues as to whether a FIFO lifestyle is socially sustainable (Haslam McKenzie, 2016) since the disruptions and stresses that it imposes on family and community living patterns can be weighed against the higher incomes that have, to some extent, the potential to compensate for these stresses. What is clear, however, is that FIFO produces widespread spatial impacts. Most FIFO workers in Western Australia live in or close to Perth, though some commute from regional centres elsewhere in the state, from interstate and even internationally. As with the outflow of product and profits from the mining areas to larger and more distant centres, so both the wages and the personal problems of the FIFO labour force return with them and impact upon their various host communities.

The shift to robotisation is too recent for many conclusions to be drawn as to its sustainability implications. However, it is clear that, while its major impact will be to reduce the demand for onsite labour during the production phase of mining operations, it will produce much less change in personnel requirements during the construction phase. Robotisation may therefore lessen the magnitude of the spatial impact of mining on the state by decreasing the overall number of FIFO workers, but it might also increase the boom and bust temporal effects of mining because of the increased differential between the labour demands of the (relatively short) construction and (characteristically longer) operation phases of each mining project.

Throughout this period, mining has contributed to the dispossession, social disruption, impoverisation and the destruction of and limitation of access to culturally significant sites of many of the Indigenous inhabitants of the affected areas. This remains a serious, complex and ongoing social and cultural issue, the ramifications of which, as a result of the increasing — and, in many early cases, enforced — mobility of the Indigenous

population, now likewise extend far beyond the localities directly impacted by mining operations (Dockery, 2014; Haslam McKenzie and Hoath, 2017).

### 5. Discussion and Conclusion

We therefore argue that the concept of sustainable mining is widely seen as oxymoronic and/or paradoxical because its sustainability is inherently scalar. At the local scale, mining is generally disruptive, destructive and ephemeral and therefore can hardly be termed sustainable. At the regional scale, it is still subject to booms and busts, but its environmental impacts are less significant overall and its socioeconomic effects are often smoothed by the movement of labour and production from one site of mining operations to another.

While the state likewise experiences (and is currently experiencing) mining booms and busts which impact on the entire population and while mining, as a source of direct employment, is declining in importance, it has been central to the state's economic and demographic development for well over a century. Western Australia has experienced and is experiencing numerous environmental, economic and social problems as a result of the inherent volatility of mining related development but, at the state scale, it is possible, albeit paradoxically, to regard mining as being relatively sustainable. At the state (Jones, 2001) and even at the regional (Paül and Haslam McKenzie, 2015) level, it is therefore susceptible to planning initiatives which seek to enhance this sustainability.

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## 48. Transnational Migration and Rural Transition along China's Borderland

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### *1. Introduction and Methodological Considerations*

Severe rural depopulation has occurred along China's borderland with North Korea, in an area where Korean Chinese (one of China's 55 ethnic minorities) are the majority population. The main reason has been transnational labour migration to South Korea and nearby countries such as Japan since the 1990s. This trend increased after 2000 when the South Korean government enacted a law to open its domestic labour market to foreign ethnic Koreans (Choi and Kim, 2016). As a result, rural areas in north-eastern China, such as Jilin, Liaoning, Heilongjiang, and Inner Mongolia Provinces, where Korean Chinese have been present for centuries, have experienced severe social transitions.

Some researchers have studied the migrations of Korean Chinese from the viewpoint of:

- transnational labour migration of Korean Chinese (Choi and Kim, 2016);
- adaptation and/or segregation of Korean Chinese in destinations such as South Korea (Kim, 2009; Park and Lee, 2010; Bhang and Kim, 2012; Suh, 2012);
- impacts on their identities and family relations (Yoo, 2002; Park, 2015); and
- transformation of their ethnicity and de-territorialisation (Yoon, 2008; Kang, 2012).

Rural transitions caused by transnational labour migration of Korean Chinese, however, have not been reported yet.

This study treats rural transitions along China's borderland from the viewpoint of land ownership, ethnic composition and land-use. Renhua Village was selected for in-depth study. It is located about 20 km from the border with North Korea in Longjing City, Yanbian Korean Autonomous Prefecture, Jilin Province. Fieldwork was conducted in August 2013 and 2014 focussing on how transnational labour out-migration of Korean Chinese impacted land-use. Data was collected from interviews with 35 farmers including the village leaders. Official data from the local government was not available due to the national security issues in a borderland. All the explanation presented below, if not specifically noted, is based on the interviews with the farmers in Renhua Village.

### *2. Theoretical Insights*

While the increase in cross-border transactions and of "capabilities for enormous geographical dispersal and mobility" go hand in hand with "pronounced territorial concentrations of resources (Sheller and Urry, 2006: 210), they deterritorialise migrants from their destinations and reorganise relations between who stays behind and their use of resources. This is the case for transnational out-migration from north-eastern China. While the regional impacts of Korean Chinese transnational migration can (or should) be discussed within a global context, this phenomenon can be clearly understood in the

specific context of East Asia. Compared to rural transitions provoked by severe out-migration in South Korea and Japan, which have similar agricultural practices and cultural backgrounds, the experience of north-eastern China is unique. With regard to the regional impacts of rapid rural-urban migration on the rural areas of South Korea during the 1970s to 1990s, Kim (1995) has pointed four major characteristics. First, an elderly and female agricultural labour force has replaced the young male workers due to their emigration. Second, rural-urban migration in South Korea did not lead to an increase in the size of land owned. Instead land owned by the migrants was leased to the remaining farmers. At the same time, a great increase in landownership by urban residents was witnessed. Third, labour scarcity in rural areas led to extensive but also partially intensive land use. While the farmers changed over less labour-intensive farming, they adopted market-oriented and labour/capital-intensive farming methods in order to meet the increasing need for operating capital. Fourth, in contrast with Japan, the increase in land leasing brought about the standardisation of farm size with an increase in cultivated land by the remaining farmers.

With the rural transitions present in South Korea and Japan in mind, this case study in the north-eastern China can contribute to generalise about rural transitions in East Asia. In particular, it provides insights concerning rural transitions in contemporary socialist countries.

### 3. *The Case Study*

Renhua Village is located in a suburb of Yanji City, the capital of Yanbian Korean Autonomous Prefecture. It had 434 households and a population of 1,779 in 2014. About 80% of its population is Korean Chinese. However, these official figures do not reflect reality. The actual population of the village was only about 600 because most of the other residents left for South Korea. In a counter trend the village population increased by about 70 to 80 Han Chinese (the ethnic majority in China), who rent arable land from Korean Chinese. They are called “Heihukou”, which literally means “black resident registration”, a temporary resident who does not have a permanent resident registration card. Renhua Village has seen the out-migration of two-thirds of its population since 1985, when it had 430 households and 1,916 residents (among them 1,463 Korean Chinese). This represents rapid rural depopulation and was much higher than that of other East Asian countries like Japan and South Korea.

Renhua Village has an area of 3,369 hectares, of which 68% is forest (2,288 ha), and 26% is arable land (870 ha). Paddy fields occupy only 24% (204 ha) of the arable land while rain-fed agriculture is undertaken in the rest. In 1985, 837 ha was in arable land, with 478 ha in paddy fields. This means the acreage of paddy fields in Renhua Village has decreased almost by half over the last thirty years, while total arable land hardly changed. Historically, Han Chinese and/or Manchurian Chinese explained the predominance of rain-fed agriculture in north-eastern China in terms of water scarcity and cold climatic conditions. This changed from the late 19<sup>th</sup> century onward when Koreans who had lived near the border immigrated to north-eastern China, followed by the Japanese during the pre-war period of the Japanese Manchurian puppet state, and introduced paddy field cultivation. As a result, the villages of north-eastern China where Korean Chinese became

the majority have paddy fields. Renhua Village was not exceptional. More than half of its arable land was in paddy fields until the late 1990s when trans-national out-migration started.

#### 4. *Influx of Han Chinese and Land Use Change*

Though the majority population in Renhua Village has traditionally been Korean Chinese, about 20% are local Han Chinese. In addition to these local Han Chinese, more Han Chinese have recently migrated from nearby provinces in order to seek low-rent arable land increased after the vacuum left Korean Chinese out-migration. Despite being called “Heihukou” temporary residents, they are the ones who in fact cultivate arable land in Renhua Village. These Han Chinese have been moving to Renhua Village since 2000 and mainly come from rural areas of north-eastern China. In Jilin and Heilongjiang Provinces land rents are more than double those of Yanbian Korean Autonomous Prefecture. Local land was readily available for rent from the families of Korean Chinese who no longer had labour due to trans-national labour migration to South Korea. The “Heihukou” Han Chinese, in general, only have experience in dry-field agriculture and not in paddy field cultivation. Controlling water flow is very important for paddy cultivation, which is not easy for Han Chinese who never used irrigation before. However, with the development of new agricultural methods and machinery, “Heihukou” have been able master paddy field cultivation since the 2000s.

In 2013 and 2014 the average rent for a paddy field in Renhua Village was 400–500 Yuan (USD 62-78) per 1 *Mu* (=0.1 ha), whereas that of a dry field was 300-400 Yuan (USD 47-62) per 1 *Mu*. The rent in Renhua Village was still lower than the average rent in the other rural areas in Jilin Province. The contracts for renting arable land between “Heihukou” and Korean Chinese in the village are mostly verbal and consequently can be cancelled at any time. As a result, only a few “Heihukou” have a long-term rental contracts which secure their rights. With regard to their housing, most of them purchased houses from Korean Chinese who had left for South Korea while others rented houses from Korean Chinese. According to the Chinese Land Law, as they do not have resident certificates to live in Renhua Village they cannot purchase land. The only way to have access to arable land is by renting land from local Korean Chinese.

Unlike local Korean Chinese, “Heihukou” undertake large-scale farming. They rent and consolidate land. The size of their operations is usually between ten and thirty hectares, which is much larger than Korean Chinese properties. They also have large agricultural machinery in order to take advantage of economies of scale. It is noteworthy that most of them purchased the machinery in the name of a local Korean Chinese because without a resident’s certificate they cannot borrow money from a bank. On the basis of conciliating mutual interests, “Heihukou” have replaced the absent Korean Chinese in Renhua Village.

In China, a newcomer to a village is required to get permission from a production team. These teams have their origin in the “*Renmin Gongshe*”, the basic group of Chinese people’s agricultural communes. “Heihukou” in Renhua Village also need the same permission, however, the method for obtaining permission in Renhua Village is different from that of production teams elsewhere in China. For example, some local production

units do not allow “*Heihukou*” to live in their hamlet while others welcome “*Heihukou*” as members of their production team. Some production teams also require “*Heihukou*” to contribute funds to the production team. However, “*Heihukou*” are not allowed to vote in village affairs. They are *de facto* farmers in Renhua Village but are treated as guest workers. In fact, fewer than twenty Korean Chinese in Renhua Village today are engaged in agricultural activities and as a result most arable land is cultivated by “*Heihukou*”.

Regarding land-use by “*Heihukou*”, they prefer to cultivate dry fields rather than paddy fields. “*Heihukou*” have had trouble with land owners because they have converted paddy fields with unfavourable irrigation conditions into dry fields. Compared with rice, commercial crops such as ground cherries which “*Heihukou*” in Renhua Village prefer to cultivate yield three times the net profit (Table 1 and Figures 1 and 2). As a result, conversion of land to dry fields by “*Heihukou*” is common and results in drastic local land-use changes.

Table 1. Comparison of profitability among commercial crops and rice. Source: Field survey in August 2014.

Crop	Farm-gate Price	Yield	Gross Profits
Rice	3 Yuan/kg	7,500 kg/ha	22,500 Yuan/ha
Ground cherry	10 Yuan/kg	3,500 kg/ha	70,000 Yuan/ha

Figure 1. Ground cherry cropping undertaken by “*Heihukou*”. Source: Picture by the author (13/8/2014).



*Figure 2. Ground cherry seeds. Source: Picture by the author (13/8/2014).*



### *5. Discussion and Conclusion*

This paper illustrated recent rural transitions along China's borderland after large-scale out-migration depopulation, change of ethnic composition and land use in the in-depth study of farming in Renhua Village. While severe depopulation has continued for twenty years, typical trends in similar East Asian setting, such as farm land abandonment and less intensive land-use (cf. Kim, 1995), were not observed in Renhua Village. It should be pointed out that these local responses to similar problems were different from other East Asian countries because of the legacy of socialistic land ownership in China. However, unexpectedly large-scale farming accompanied the influx of Han Chinese from nearby rural areas. Along with the main agricultural labour force changing from Korean Chinese to Han Chinese, dominant land-use patterns also shifted from paddy fields to dry fields. The results of this case study therefore contribute to generalising about the impacts of out-migration on rural transitions in East Asia, while contrasting the characteristics of rural land use as well as land ownership with those present in capitalist countries.

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## **49. Las actuaciones en desarrollo rural con enfoque LEADER aplicadas en el rural profundo de Andalucía. ¿Éxito o fracaso?**

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*The Initiatives of Rural Development Supported by the LEADER Approach in the Andalusian “Deep Rural” Areas. Success or Failure?*

Initiatives in the field of rural development is of vital importance for “deep rural” areas. It is necessary to analyse these actions as applied to remote spaces, to estimate if they are adequate, if they can be the “seed” for the progress of these places where they are implemented, or if they are only isolated initiatives without generating positive impacts in local economies. This paper aims to analyse the projects carried out by the LEADER approach of the European Union, in the municipalities of the “deep rural” areas in the period 2007-2013. Is the investment relevant? What activities have been supported? Who have been the promoters? What specific initiatives have been implemented?

### *1. Introducción*

El papel de las actuaciones en materia de desarrollo rural es de vital importancia para los espacios rurales que se han quedado rezagados, para aquellas áreas del rural profundo, zonas de montaña escasamente pobladas, donde el éxodo rural continúa. Se hace necesario un análisis de este tipo de actuaciones aplicadas a estos espacios remotos, para estimar si son adecuadas, si pueden ser la «semilla» para el progreso de los lugares donde se implantan, o si son únicamente iniciativas aisladas sin apenas generación de efectos positivos en las economías locales. Es por ello que en este trabajo se persigue como objetivo analizar los proyectos llevados a cabo por parte del enfoque LEADER de la Unión Europea, desde la práctica del desarrollo rural neoendógeno, en los municipios del rural profundo y por parte de los Grupos de Acción Local (GAL) de Andalucía en el periodo 2007-2013. ¿Es relevante la inversión realizada?, ¿hacia qué actividades se han dirigido?, ¿quiénes han sido los promotores?, ¿qué iniciativas en concreto se han puesto en marcha?

### *2. Breve estado de la cuestión*

El enfoque de desarrollo rural europeo, denominado LEADER, ha aportado significativos cambios en los territorios donde se ha implementado. Su origen está en la Reforma de los Fondos Estructurales de finales de la década de los 1980 del siglo XX. Esta Reforma coincide en el tiempo con la aparición del documento El futuro del mundo rural, de 1988 (European Commission, 1988). LEADER se ha ido aplicando a lo largo de 25 años. En esta investigación nos centraremos en el periodo 2007-2013, donde se implementó a través de los Programas de Desarrollo Rural regionales apoyados con el Fondo Europeo Agrícola y de Desarrollo Rural (FEADER).



El enfoque LEADER es probablemente uno de los más emblemáticos e identificables ejemplos del actual paradigma del desarrollo rural. Desde sus comienzos ha sobresalido como una herramienta ejemplarizante en la práctica del desarrollo local participativo y endógeno (Woods, 2011). Otros logros han sido el fomento de la descentralización en la toma de decisiones, el empoderamiento de las comunidades y la renovación del capital social en las áreas rurales (Farrell y Thirion, 2005).

Pero hay que tener presente también una serie de efectos perniciosos derivados de su aplicación. De entrada, una participación más formal que real, con un elevado control descendente —en gran parte, de la administración regional—, lo que reduce en gran medida la toma de decisiones local, de modo que el control de su aplicación recae en las élites y *lobbies* políticos y económicos locales (Esparcia, Noguera y Pitarch, 2000: 96). Se genera, por tanto, una «*project class*» (Dargan y Shucksmith, 2008). Así, quedan al margen los colectivos desfavorecidos (Gardner, 2011).

Por otro lado, los constreñimientos financieros y burocráticos también han limitado la capacidad del enfoque para realizar cambios significativos, por lo que puede ser calificado como un «programa sin dinero» (Ray, 2000: 164) —algo así como «tratar de afrontar la curación de un cáncer con una simple aspirina»—. En efecto, para Nieto y Cárdenas (2015: 158), en el caso de Extremadura, «la consecución de los objetivos planteados no ha tenido los resultados esperados debido, sobre todo, a la escasez de recursos económicos».

Por último, las inversiones han contribuido también al desarrollo desigual. La influencia de la ideología neoliberal en el diseño de políticas y programas rurales y regionales ha favorecido la generación de «espacios con proyectos» y «espacios vacíos de proyectos», ya que la capacidad de inversión y la presencia de emprendedores no es similar en todos los espacios rurales (Cuadrado, 2012). Así, el *rural profundo* ha quedado al margen en gran medida de estas iniciativas de desarrollo local (Cañete, Navarro y Cejudo, 2018; Nieto y Cárdenas, 2018; Leco, Pérez Díaz y Mateos, 2017). En la práctica, el desarrollo rural neoendógeno puede favorecer la exclusión territorial más que corregirla. La apenas consideración en las instituciones comunitarias de las distintas problemáticas poblacionales y socioeconómicas entre unos espacios rurales y otros, se denota ya en el propio lenguaje utilizado, al mencionarlas como «áreas escasamente pobladas», sin aplicar distintas políticas de desarrollo rural e intensidades en éstas, dentro de la Unión Europea, lo que ha contribuido también a estas desatenciones territoriales.

### 3. Metodología y área de estudio

La fuente principal de estudio ha sido el listado de proyectos aprobados con la ayuda del enfoque LEADER en los GAL de Andalucía en el periodo 2007-2013. Esta información ha sido suministrada por el gobierno regional, la Junta de Andalucía. La base de datos posee una serie de campos que han sido trabajados: inversión, subvención, puestos de trabajo, tipo de emprendedor, acción y grupo de intervención donde se inserta. Por otra parte, también se ha consultado la estadística oficial (Instituto de Estadística y Cartografía de Andalucía) para delimitar el ámbito de estudio. Se ha trabajado a una escala municipal, para esclarecer y poder analizar a mayor nivel de detalle la temática en cuestión. Así, con los 110 expedientes consultados para el área de estudio, se ha dado respuesta a las

siguientes cuestiones: ¿en qué se invierte?, ¿cuánto?, ¿dónde?, y ¿quiénes?; estos son los aspectos abordados en el trabajo.

Por otra parte, para enmarcar la zona de estudio, se ha consultado, en primer lugar, las delimitaciones usadas por las instituciones europeas que hablan de «*áreas escasamente pobladas en Europa*», y no de *rural profundo*. Si acaso, se habla en estas instituciones de áreas periféricas, pero no de marginalidad social y económica. La primera, desarrollada por la Comisión Europea, está basada en un umbral de 12,5 hab./km<sup>2</sup> al nivel de NUTS III (en el caso español, las provincias), con el objetivo de suministrar un listado a los responsables políticos europeos para ayudarlos a asignar los fondos de ayuda disponibles, y que trata de suministrar una lista para asistirlos mediante fondos. Y la segunda, desarrollada por EUROSTAT, que considera como «*áreas reducidamente pobladas*» las «sobrantes» de las áreas más «densamente pobladas» (NORDREGIO, 2012).

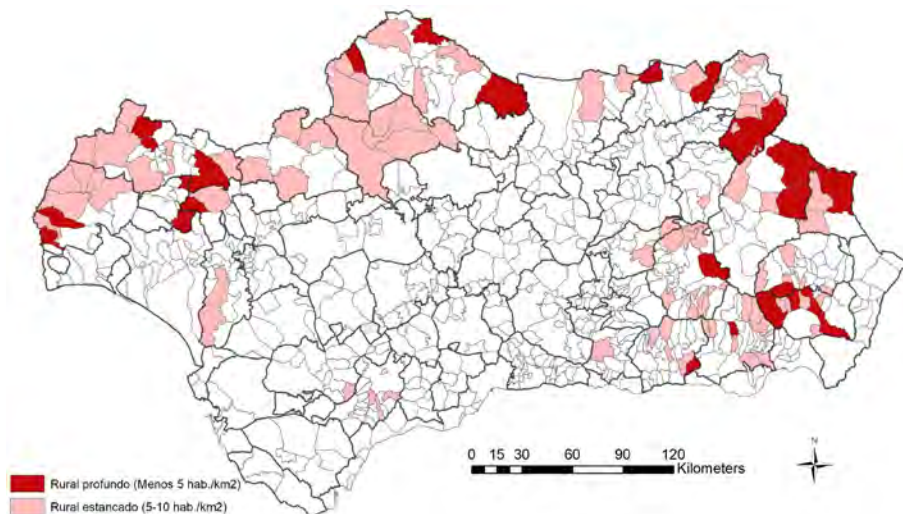
No obstante, se ha preferido considerar y seguir el trabajo de Molinero (2017), donde se establece como *rural profundo* a los municipios con una densidad de población inferior a 5 hab./km<sup>2</sup>, y al *rural estancado*, a los comprendidos entre 5-10 hab./km<sup>2</sup>. Para este autor, se considera como *rural profundo* el «espacio rural marginal, poco accesible, escasamente poblado, envejecido, regresivo, netamente dominado por la actividad agraria y en el que no solo no se gana población, sino que se pierde» (Molinero, 2017: 34). El ámbito se ha restringido a los comprendidos entre 5-10 hab./km<sup>2</sup>, y aunque muy probablemente en el ámbito andaluz esta delimitación queda muy restringida, porque en este caso, el ámbito rural no presenta, en líneas generales, los problemas de despoblamiento de otros ámbitos del interior peninsular español, nos sirve de muestra de estudio para apreciar qué se está haciendo en materia de desarrollo local en estos ámbitos remotos. Por otra parte, se ha considerado también el saldo poblacional en el periodo, entre 2007 y 2015, aunque salvo en el caso de dos municipios, que tienen un saldo ligeramente positivo, el resto (24), presentan decrecimientos poblacionales significativos. El año elegido para el cálculo de la densidad poblacional ha sido 2015, año en que se cerraron gran parte de los contratos de ayudas a proyectos LEADER para el periodo 2007-2013 en los GAL andaluces.

Como se puede apreciar en la Figura 1, estos municipios del *rural profundo* se encuentran en las zonas periféricas y montañosas de Sierra Morena y Sistemas Béticos, en las provincias de Almería (7), Huelva (7), Granada (4), Jaén (3), Córdoba (3) y Sevilla (1). Así los municipios serían en total 26.

#### 4. Resultados

Si se observa, en primer lugar, las inversiones realizadas mediante proyectos de desarrollo rural neendógeno, se aprecia que para el total de 26 municipios han sido de casi 10 millones de euros, para un total para todos los GAL andaluces de 562 millones de euros (Tabla 1), apenas un 1,8% del total. Se puede afirmar que las inversiones han sido mayores en estos ámbitos más deprimidos, si se considera la inversión por habitante. Ahora bien, hay que tener en cuenta, al menos, tres premisas generales. En primer lugar, la escasez de dinero invertido, anteriormente también relativizado con el montante total, y que si se pondera por el número de habitantes, 472 euros, no alcanzaría ni a los 68 euros por habitante y año en el periodo estudiado. Por otra parte, que en 4 municipios la

Figura 1. Delimitación del área de estudio: el rural profundo de Andalucía (2015). Fuente: Instituto de Estadística y Cartografía de Andalucía.



inversión haya sido nula, además de que en otros 12 la inversión haya sido muy reducida (por debajo de los 300.000 €), mientras que en tres de ellos haya superado el millón de euros, implica un reparto muy desigual de las inversiones. Y, por último, algunos de estos proyectos han sido desarrollados por autónomos y empresas privadas, por lo que las inversiones y beneficios de éstas han revertido en un escaso número de personas.

Tabla 1. Datos de inversión en el rural profundo y en los GAL andaluces dentro del enfoque LEADER en el periodo 2007-2013. Fuente: Junta de Andalucía.

	Inversión (€)	Subven-ción (€)	% Sub-ven-ción	Habitantes (2015)	Inv. (€)/ hab.	Subv. (€)/ hab.
<i>Rural profundo</i>	9.863.027	5.312.861	53,9	20.900	472	254
Total GAL	561.513.658	229.275.253	40,8	4.424.620	127	52

En lo que respecta a la pregunta de dónde se ha invertido, las temáticas preferentes atendiendo a las acciones (Tabla 2), han sido las relacionadas con la mejora de la calidad de vida (1/3 parte del total de inversiones), en la mejora del sector agrario y agroindustrial (27%), y en menor medida, en turismo (15,3%), y en la recuperación del patrimonio natural y cultural (14,7%). Cabe mencionar la escasa atención en estos municipios hacia actuaciones dirigidas a la diversificación de la economía (9,9%) o a la mencionada anteriormente de turismo. De hecho, en el reparto municipal predominan en mayor medida los municipios que han invertido en mayor cuantía en mejora de la calidad de vida (10 de 26).

*Tabla 2. Datos de inversión en el rural profundo y en los GAL andaluces dentro del enfoque LEADER por áreas de actividad en el periodo 2007-2013. Fuente: Junta de Andalucía.*

	Sector agrario y agroindustrial	Restaurar el patrimonio natural y cultural	Diversificar la economía rural	Turismo	Mejorar la calidad de vida	Total inversión
<i>Rural profundo</i> (€)	2.660.248	1.451.924	974.356	1.511.099	3.259.556	110
Total GAL (€)	179.853.460	25.725.609	61.004.564	90.221.555	193.671.352	550.476.540
<i>Rural profundo</i> (%)	27,0	14,7	9,9	15,3	33,0	100,0
Total GAL (%)	32,7	4,7	11,1	16,4	35,2	100,0

Pero, ¿qué actuaciones se han llevado a cabo? De los 110 proyectos ejecutados, las actuaciones más cuantiosas han sido: una en el área de mejora del sector agrario y agroindustrial, con la adquisición de maquinaria para una nueva línea de limpieza de almendras (1.267.000 €), realizada por una cooperativa, la restauración arquitectónica de una ermita, realizada por un ayuntamiento (540.000 €), en materia de la recuperación del patrimonio natural y cultural, o la construcción de un alojamiento rural en turismo desarrollada por una mujer emprendedora.

En lo que respecta a quiénes son los emprendedores (Tabla 3), la tipología de promotor más común, la predominante, es la propia administración local (sobre todo ayuntamientos, los 22 que han realizado inversiones, con un total de 68 proyectos —4.096.686 €, 41,5% del total de la inversión—). Estas corporaciones locales invierten especialmente en patrimonio rural, servicios básicos y renovación de espacios públicos de estas poblaciones. La ausencia de iniciativa privada tiene que ser suplantada por la iniciativa pública. El apoyo mediante subvención es muy alto en sus inversiones, de una media del 75%. En el caso opuesto, hay que resaltar también el escaso número de mujeres autónomas emprendedoras, solo siete en total, y que invierten únicamente el 0,9% de la inversión total en estos municipios, aunque sus inversiones y subvenciones, por regla general, son de mayor cuantía que las protagonizadas por hombres. Ellas invierten especialmente en turismo y en microempresas. Y también es de resaltar la casi nula presencia de jóvenes autónomos, tan solo cuatro (tres hombres y una mujer), cuyas subvenciones son menores, relativamente hablando, que las de sus homónimos adultos.

Y, por último, en cuanto al empleo generado, ha sido muy reducido su número. La administración local, a causa de la naturaleza de sus proyectos, no ha generado nuevo empleo, por lo que la mayor parte de las actuaciones en estos municipios ha tenido una implicación laboral muy reducida. Cabe destacar que la iniciativa privada ha sido la que ha generado estos pocos empleos, resaltando una SL y una autónoma joven, con la creación de cuatro puestos de trabajo en ambos casos. De esta forma, en total, de los 33 empleos nuevos creados, en 11 municipios no se ha generado ninguno, que se suman a los cuatro de ellos que no tuvieron ningún tipo de inversión, y en cinco solo se generó un empleo. De nuevo un reparto muy desigual en la creación de empleo.

Tabla 3. Datos de inversión por tipologías de promotor predominante en los municipios del rural profundo dentro del enfoque LEADER en el periodo 2007-2013. Fuente: Junta de Andalucía.

	Corporaciones locales	Cooperativas	SL	Autónomos hombres	Autónomos hombres jóvenes	Autónomas mujeres	Autónomas mujeres jóvenes
Inversión media	60.245	447.719	147.909	75.108	52.612	108.279	88.463
Inversión total (€)	4.096.686	1.343.158	1.479.087	901.294	157.837	649.673	88.463
Inversión total (%)	41,5	13,6	15,0	9,1	1,6	6,6	0,9
Subvención media	44.994	157.406	49.506	25.980	17.118	42.505	22.585
Subvención total (€)	3.059.626	472.219	495.055	311.763	51.355	255.029	22.585
Subven.media (%)	74,7	35,2	33,5	34,6	32,5	39,3	25,5
Proyectos	68	3	10	12	3	6	1
Total promotores	23	2	8	12	3	6	1

### 5. Discusión y conclusión

Con un 1,8% de la inversión del enfoque LEADER en estos espacios, apenas 67 euros por habitante al año, es innegable que no se puede contribuir a reequilibrar y a recuperar estos municipios del rural profundo. Además, el reparto de las inversiones dentro de ellos ha sido muy desigual, al igual que la creación de empleo, que ha sido ínfima, solo 33 puestos de trabajo creados. Por otra parte, el predominio de las inversiones de las corporaciones locales ligadas a la mejora de la calidad de vida, el patrimonio, los servicios básicos y la renovación de espacios públicos ha evidenciado la inexistencia de iniciativa privada. De hecho, la presencia de mujeres y de jóvenes autónomos emprendedores brilla por su ausencia, solo 10 sobre 110 proyectos. Además, los alicientes mediante subvenciones primadas a los jóvenes emprendedores han sido inexistentes.

En definitiva, estas actuaciones —la mayor parte de las veces, aisladas e inconexas— han carecido de una planificación anterior. De este modo, no se han afrontado de forma directa y decidida los problemas de despoblamiento y éxodo rural de estos municipios. Se muestra que el *rural profundo* andaluz queda al margen, aunque de forma implícita, y no explícita, de una auténtica práctica del desarrollo rural neoendógeno. De nuevo encontramos espacios vacíos de verdaderos proyectos en desarrollo rural, que generen efecto demostrativo e innovador. La especial atención al rural profundo, afrontando sus problemas y particularidades, es necesaria desde la propia Unión Europea. Unas medidas y actuaciones distintas, y de mayor intensidad, resultan necesarias para estas áreas. El enfoque LEADER puede ayudar sobremanera en esa complicada tarea.

### Agradecimientos

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## 50. The Inception of the Rural Development Paradigm in Galicia? The *Comarcas* Implemented in the 1990s under Scrutiny

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### 1. Introduction

In Galicia, there has been an awareness of rural problems since at least the 18<sup>th</sup> century. However, the assumption that rural Galicia is backward is a recent notion, emerging when cities boomed in the 1960s and Galicia was coined as “dual”, consisting of a urban, industrial and advanced economy, on the one hand, and a pre-capitalist and traditional countryside “in decay”, on the other (Beiras, 1972: 41-44). This dualistic interpretation is considered over-simplistic by Fernández-Prieto (2016) claiming that farmers and primary industries have innovated, adapting to market forces throughout the 20<sup>th</sup> century, and by Lois (2004), who argued that Galician urban and rural areas cannot be depicted as parallel realities. In any case, Beiras’ (1972) essay arguing that rural Galicia experiences a longstanding crisis has attracted considerable attention.

Galicia was devolved in the early 1980s as an autonomous national entity. Unsurprisingly, during the first legislative period of the Parliament, an Act (11/1983) on “intensive actions in rural parishes” was passed, for paving roads, implementing sewage systems, helping farmers to process their raw products into artisanal food, and other similar reforms. However, a comprehensive rural development policy was absent until the 1990s. After the Iberian countries joined the European Communities (later, European Union, EU) in 1986, the policies, funding frameworks and governance requirements from Brussels overwhelmed Galicia’s policy-making. Arguably, the first initiative to apply a rural development agenda emerged in 1991, when the Department of the Galician President created an agency for developing the *comarcas*.

A complete analysis of what *comarca* means is beyond the scope of this paper. In English, *comarca* could be roughly translated as *county* — indeed there is a *comarca* so-called O Condado (literally, “The County”). In Galicia it describes a region consisting of several local government areas, with fuzzy borders; since the 19<sup>th</sup> century, several authors have proposed between 20 and 70 of them. Importantly, *comarcas* are politically controversial because they are mainly supported by Galician nationalists — who defend the right of Galicia to create its own institutions, including its internal levels of government —, while the Spanish State since the early 19<sup>th</sup> century, together with the Spanish parties in office in Madrid (and in Galicia) since the 1978 Constitution, are *pro-statu quo*, i.e. they argue that *comarcas* should not be statutory supra-local councils because with the

existing municipalities (currently, 313) and provincial councils (n=4) an additional layer of government is unnecessary (Lois, 2004; Vila-Vázquez et al., 2015).

The aim of this paper is to discuss this initiative in relation to theorisation on rural development. Ironically, the *comarcas* were implemented by a political party (the *Partido Popular*) ideologically against them, for the purposes of development in those areas of Galicia perceived as being backward. The first ones were set up in 1994 and all were dismantled after 2008 (Act 12/2008). In practical terms, their roles dissipated with the Act 5/2000 which created an Agency of Rural Development for all Galicia (Agader). This paper analyses the interviews carried out with ex-managers of various *comarcas* in order to understand their experience while they were in office. This will assist in understanding the failures of this experience and highlight the key issues when rural development arrived as a political paradigm in Galicia.

## 2. Theoretical Insights

Despite being often used as synonyms, development and growth are not interchangeable (Beiras, 1972; Precedo, 1994; Ojeda, 2003): *growth* is an increase in physical quantities (e.g. GDP growth), while *development* is the progress in skills, qualities or potentials, a multidimensional concept that is not only quantitative but also qualitative. A case in point is the endogenous development concept, based on harnessing local resources through bottom-up procedures originated from local communities (Vázquez-Barquero, 2006). Endogeneity implies that civil society and local stakeholders have a key role in activating development. Since the 1970s, several non-coincident endogenous approaches have emerged (Ray, 2000; Vázquez-Barquero, 2006; Galdeano-Gómez et al., 2011).

### 2.1. Rural Development in the EU

From the seminal paper *The Future of Rural Society* (European Commission, 1988), the application of the notion of development to EU rural areas is based on promoting economic diversification, with tourism as the pivotal solution (Ray, 2000; van der Ploeg et al., 2000; Galdeano-Gómez et al., 2011; Paül, 2013). Thus, the key guideline for EU rural areas is to transition from agriculture into pluriactivity — sometimes referred to, problematically, as multifunctionality. In the EU, rural development debates are focussed on the investments by national (and sub- and supra- national) governments, becoming a widespread political discourse (Ray, 2000; van der Ploeg et al., 2000; Dax et al., 2016). However, there is a contradiction between this view and the notion of development (Paül, 2013): if maximising local potential is central, why focus on the public investments made through funds channelled from outside local communities?

Rural development in the EU has been fuelled through the LEADER initiative since 1991. Initially (LEADER I, 1991-94; LEADER II, 1994-99; LEADER+, 2000-6), some rural regions were selected and funded to encourage development projects. In 2007-13 and 2014-20, LEADER has been integrated into the official rural development programmes for all EU regions — i.e. the so-called “LEADER mainstreaming” (Dax et al., 2016). Purportedly, LEADER is framed on the endogenous model. However, EU funds are extra-local. Hence, the endogenous approach has been adapted by Ray (2000: 4), resulting in the neo-endogenous notion “in which extra-local factors are recognised and regarded as essential but which retains a belief in the potential of local areas to shape their



future”. This notion has been debated by Furmankiewicz (2011), Galdeano-Gómez et al. (2011), Paül (2013) and Dax et al. (2016), among others.

LEADER’s philosophy of rural development has been implemented through alleged participative partnerships in specific rural areas, consisting of businesses, civil society and/or the public sector. This has impelled the assumption that rural development has to be participative and in cooperation between stakeholders (Ray, 2000; Furmankiewicz, 2011; Paül, 2013; Dax et al., 2016).

## 2.2. The Rationale for the *Comarcas* in Galicia in the 1990s

The *comarcas* in the 1990s were rooted in their historical sense, but with a different meaning given by the mastermind of their implementation, Andrés Precedo, who had several responsibilities in the Galician Government during the 1990s — ruled by the *Partido Popular*. Departing from stating that *comarcas* were not planned to become new statutory supra-municipal councils but basically public foundations led by a manager, Precedo (1993, 1994, 2004) designed a theoretical model that was supposedly implemented. According to him, *comarcas* should work to:

- coordinate different governmental levels in each particular region: the Galician Government — with its various departments —, the involved provincial council and the different local governments included within;
- develop spatial planning at the supra-municipal scale; and
- implement local development participative strategies based on the endogenous capacities present in the *comarca*.

The latter function is the most topical; outlining, among other goals:

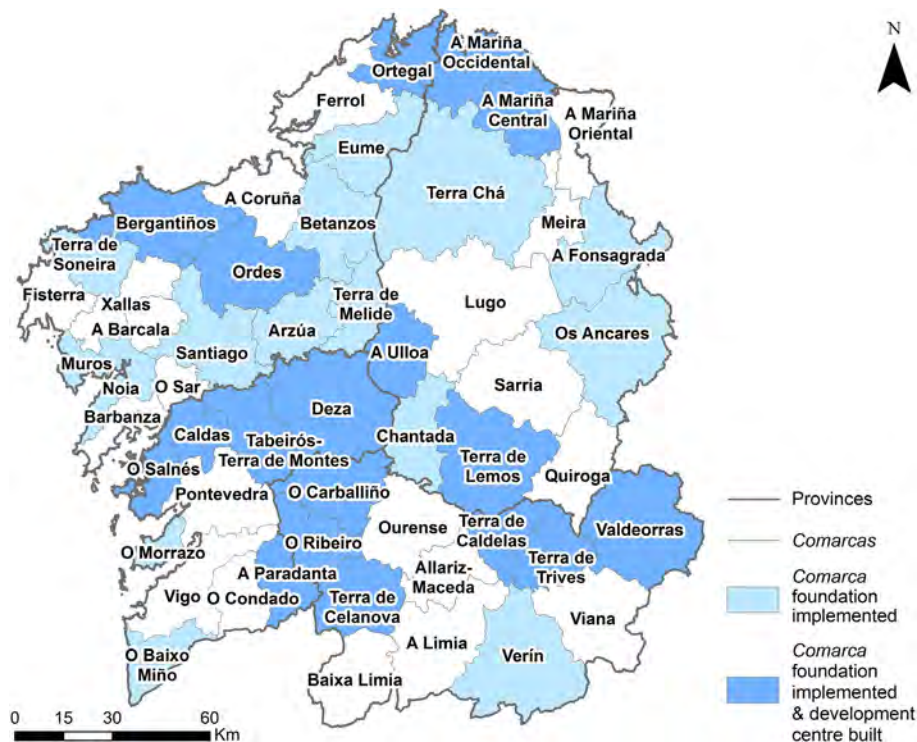
- economic development strategies;
- prioritising favoured economic activities, assuming that the primary sector had to be exceeded by rural tourism, manufacturing, nature conservation, leisure provision and other rural services;
- marketing and promoting the area and its local products; and
- social development, including education, social services and culture.

In each *comarca* a foundation was designed to encourage actions (Figure 1). The place to do so was the *comarca* development centre, planned for exhibiting local products and providing information (Figures 1 and 2). As a whole, *comarcas* should assist to balance Galicia, reducing internal spatial disparities (Precedo, 1993, 1994, 2004).

## 3. *Methodological Considerations*

In 1997, the official boundaries of 53 *comarcas* were passed, but only 33 attained a foundation (18, a development centre; Figures 1 and 2). A list of 31 sacked managers was published in the Galician Gazette in 30/10/2015. It was extremely difficult to contact them and some refused to participate in the research. Eventually, 13 interviews were conducted with *comarcas’* ex-managers, between April and June 2017, lasting from half an hour to one hour. Interviews covered several issues, related to their managerial role; using when possible the phrase, “Tell me about...” (Valentine, 2005). The goal was not to obtain “answers that were objectively true, but rather subjectively sincere” (Ruiz-Olabuénaga, 1999: 170), seeking “to understand how individual people experience and make sense of their own lives” (Valentine, 2005: 111).

Figure 1. The comarcas map. Source: Decree 65/1997 and Doval (2009).



The interviews were recorded and later transcribed. This material was processed using open coding, enabling the analysis, reduction and abstraction of the data (Cope, 2010). These codes make up an interpretation based on key themes emerging from the data and are both *emic* and *etic* (Cope, 2010). The results section of this paper presents the findings of some codes relevant to rural development elicited from interviewees. Their names shown in direct quotes have been changed to ensure confidentiality.

#### 4. Results

The interviewees reported that they began their work without having a clear idea of development. Indeed, they praised themselves as the first ones in this domain in Galicia.

We pioneered the topic of development [...]. It was a novelty. [I2]

The beginning was very, very tough, as [...] I commenced without understanding how to begin. [I6]

We were the “drummers” [...] because we were banging the drum everywhere. [I9]

Frequently, they explained that the available resources for carrying out their work were scant:

The foundation was born and died in the red. [...] The foundation was skint. [I1]

The Galician Government funded us with an annual grant that covered [...] our expenses [...] being pressed for cash. [...] We had to crunch the numbers. [I2]

Foundations [...] were only funding our salaries. [...] There were never resources for implementing a project. [I5]

Accordingly, they were forced to apply for EU funds — namely through LEADER — as a way to increase their budget.

I began to work [with EU funds] noticing that the funds coming from the Galician Government [were scant]. [...] The local person who was coming to my office didn't care from where I obtained the money, that person needed me to fund his/her initiative. [E11]

However, Agader was created in 2000 to manage the EU funds from Santiago (the capital city of Galicia) and that led not only to a sense of unnecessary duplication but also to a frustration as the access to EU funds became harder. Sometimes, cooperation occurred with the LEADER groups.

[People] used to think we were [...] going to provide them with grants and this was never the case. People sometimes used to think we were managing [EU] programmes [...]. [But] I could never work in that domain. [I3]

When Agader was created [...], instead of working together, we competed. [...] There was rivalry. [E4]

I never managed any [EU fund] but I collaborated 100% with the LEADER group working in the same area. [I9]

An investment commonly mentioned and criticised were the *comarca* development centres (Figure 2).

They were a total waste of money. If they had invested that money in developing projects in each *comarca*, everything would have been very different. [I5]

[Nowadays] the *comarca* centres [...] are still closed [...] and they are abandoned buildings. [The] investments [...] are embarrassing in the sense that the buildings are still useless. [I9]

With regard to the cooperation between different governmental levels expected to happen in each *comarca*, ex-managers identified several problems. Firstly, between the departments and agencies (including Agader) of the Galician Government:

Each department [of the Government] has its own project, its own budget, it has to “sell” its achievements, so it was very complex to coordinate projects of different departments in one particular *comarca*. [...] Instead of coordinating amongst us [...], each one was working on its own. [I9]

Secondly, an ambiguous relationship was reported with local governments. Some interviewees declared it was good, others admitted there were difficulties.

With the mayors I always had a very good relationship. [...] I was always responsive to their demands. [...] It was a way to justify my work. [I3]

With the local governments [the relationship] was good. When I arrived, it was not great, but it improved by achieving results. [I4]

The local governments [...] did not participate intensively. [I8]

Figure 2. Six abandoned comarca development centres. Source: Pictures by the authors (2017).



There were lots of problems with the local governments. This country has a lot of parochialism and localism. [...] Mayors were not happy to develop things in common. They were reluctant to accept our work. [I9]

Thirdly, the least enthusiastic for the *comarcas* were at the provincial level:

The provincial councils hated us. [...] [The provincial officers] thought that [...] [the *comarcas*] were removing [...] their powers. [I1]

The provincial councils were not interested in the *comarcas* being strong because then they were going to be redundant. [I3]

It becomes obvious that political controversy was constant while the foundations were in place.

They were condemned to disappear since the very beginning. [...] Some politicians created them, some politicians destroyed them. [I1]

In this sense some interviewees suggested that the decision-making with regard to *comarcas* was made in Santiago and that condemned their survival in the mid-term.

The aims they [from Santiago] set were ambitious and measureless. [...] By setting unattainable aims, it was going to be a failure. [I4]

Really the project [...] had [...] a vision from the bottom to the top, but I guess [Precedo] was very autocratic, implying that everything was from the top to the bottom. [I10]

### 5. *Discussion and Conclusion*

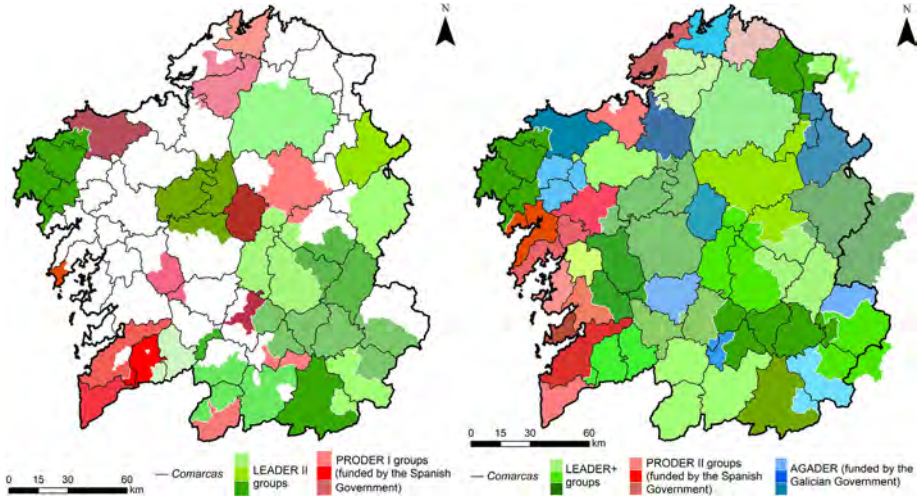
Although the ex-managers vindicate themselves as “pioneers” of rural development in Galicia, they recognised they did not have the expertise to work in this field. It seems difficult to implement a development agenda without a proper idea of what it means. We detect a confusion with growth (Beiras, 1972; Precedo, 1994; Ojeda, 2003) as there is an evident obsession in attracting funds, investments and works. This becomes particularly evident in the development centres (Figure 2).

As suggested by Doval (2009), a palpable contradiction emerges with regard to the endogenous development notion (Vázquez-Barquero, 2006; Galdeano-Gómez et al., 2011; Paül, 2013), supposedly in place (Precedo, 1993, 1994, 2004). The interviewees show that the procedures were clearly top-down, rather than bottom-up, and that there was no open forum for local discussion. Participation by stakeholders and civil society seemed absent, subtly informing that, if it happened, it is not remembered. Nor does the neo-endogenous perspective seem to be applicable in the studied initiative according to Ray (2000). Consistent with the EU rural development paradigm (Ray, 2000; van der Ploeg et al., 2000; Galdeano-Gómez et al., 2011; Paül, 2013), we also detect a pro-tourism orientation in the ex-managers’ discourse, in line with Precedo’s (1993, 1994, 2004) enthusiasm for promotion, marketing and so on.

The political dimension of the *comarcas* is constantly mentioned by the interviewees. The historical ideological controversies around the *comarcas* seem to condemn their implementation, in spite of being explicitly banned as a new statutory layer of government by the ruling party and Precedo (1993, 1994, 2004). Disagreements with provincial councils are evident, but also with local governments. And which rural development is possible if mayors are reluctant to cooperate?

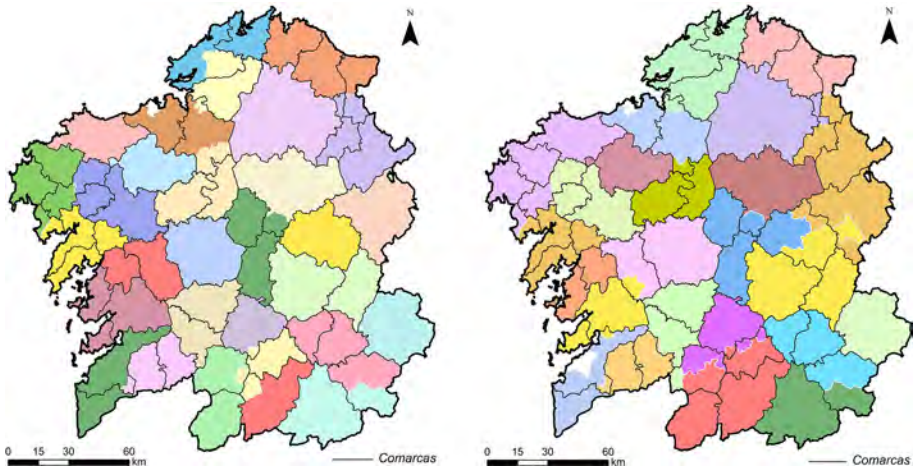
With LEADER II and LEADER+ some *comarca* foundations channelled the management of EU rural development funds (Figure 3). After setting Agader, the subsequent six-year terms have been managed with fluid maps (Figure 4). These have been responsive to the ongoing shifts in the balance of power based on the election results at the Galician, the provincial and the local levels. Since 1997 the *comarcas* are too rigid and, being designed as (theoretically) apolitical, also unresponsive to political turns and unaccountable, thus trapped between governance lines. As a result, parallel structures were working on rural development with scant cooperation — a situation that led to dissolution of the *comarcas* in 2008. From 2008, in practical terms the only thing that remains, beyond the buildings (Figure 2), is the official map itself, now only used for statistical purposes although still holding an iconic meaning for Galician nationalism (Vila-Vázquez et al., 2015), despite severe criticisms (Lois, 2004). Each colour shows a different LEADER group.

Figure 3. Rural development groups in LEADER II (1994-99) and LEADER + (2000-6). Source: <http://lagader.xunta.gal/> (accessed on 6/2017).



“LEADER mainstreaming” (Dax et al., 2016) is evident in Galicia since 2000 (Figures 3 and 4), six years before other EU regions. “LEADER mainstreaming” makes the endogenous approach difficult in the sense that every region is going to receive funds irrespective of its strategies. Thus, currently a gap exists between the endogenous and bottom-up intentions, on the one hand, and the top-down and fund-driven reality, on the other, reinforcing what this paper has shown: the gap between Precedo’s (1993, 1994, 2004) *comarcas* model and its implementation. Still banging the drums?

Figure 4. Rural development groups under the “LEADER mainstreaming”. Each colour shows a different LEADER group. Source: <http://lagader.xunta.gal/> (accessed on 6/2017).



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## 51. How to Promote Comparative Advantage in the Catalan Pyrenees? Three Value Added Cases

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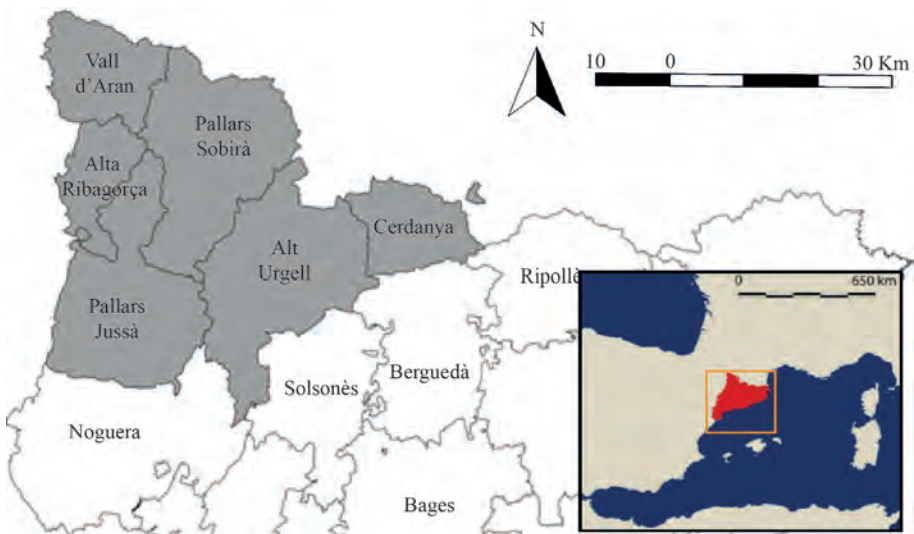
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### 1. Introduction

The research objective is to show how local resources can be converted in value added activities in a peripheral mountain area. This is possible when the comparative advantage is based on the Second-Best Option for each territory. We explain three cases which can help for a sustainable local development in the Catalan Pyrenees: the transformation of dairy products, the promotion of extensive cattle based on local natural grass feed with ecological orientation, and the development of cultural activities of added value to rural heritage and social life together with a landscape quality and greening framework (van der Ploeg et al., 2000).

The High Pyrenees and Aran (HP&A) planning region in Catalonia has a surface of 5,686 km<sup>2</sup> and a population of 71,873 inhabitants in 2016; Catalonia, 31,901 km<sup>2</sup> and 7,477,131 inh. The population density of Catalonia is 234 inh./km<sup>2</sup> while, in the HP&A is only 12.6 inh./km<sup>2</sup> as a mountainous area. This region had a maximum population in

*Figure 1. The location of the High Pyrenees and Aran Planning Region in Catalonia and South East of Europe. Sources: Idescat and ICGC base maps.*



1857 (105,036 inh.) and a minimum in 1991 (59,382 inh.). In the last 20 years it has been an important migration to the area due to new economic opportunities, recovering population. In Catalonia, as a territorial framework, it has been a continuous growth from 1857 (1,652,291 inh.) to 2016 (7,477,131 inh.).

## *2. A Theoretical and Conceptual Framework*

In the European mountain areas coexist two opposing processes since the mid-20<sup>th</sup> century: intensification of land use and abandonment of agricultural areas. This antagonism leads to conflicts in land-use and landscape quality, with social, economic and territorial consequences (Antoine and Milian, 2011). Multifunctionality in rural areas appears as new development framework (Potter, 2004). There are positive and negative activities, trends and consequences in the HP&A region (Vera, Badia and Tulla, 2011).

Some of the positives new activities and trends are (Pallarès-Blanch, Prados and Tulla, 2014): (1) Organic agriculture, organic livestock production using natural pasture products (measured by biomass), product transformation industries, and the organisation of commercial distribution; (2) Dairy products with high added value, obtained with the transformation of cow's milk, which have demonstrated their comparative advantage; (3) Positive naturbanisation with the immigration of professionals who engage in diversified activities and have introduced new technologies in services and other innovations; (4) Promotion of Protected Natural Areas (PNA) and their contiguous territory; (5) Local initiatives by town councils and civil society in general that promote green tourism, cross-country skiing, crafts and artisan activity, and tourist accommodation in rural hotels and farms, with the aim of creating new jobs; (6) Employment opportunities arising from technological innovation and new forms of organising the local economy. One highlight is the advantage of "spatial loyalty" and the territorial roots of these companies; (7) Justification of the economic and social costs of services and infrastructures in mountain areas, which are usually more expensive, within the context of "territorial justice", in parallel with "social justice", goals; (8) Economic and social benefits in border areas of mountain regions within the European Union; and (9) Extensive livestock farming that helps biodiversity and may choose to use sustainable resources.

Nevertheless, there are also negatives consequences of changes in the Catalan Pyrenees (Badia, Tulla and Vera, 2010), like: (10) Small villages are depopulated and pastures and croplands in High Mountain are abandoned, which reduces biodiversity, and there is also negative for ecological livestock farming because updating infrastructure; (11) Land use conflicts and fire hazards near the forests of PNA result from intensive urbanisation processes due to high landscape quality. Land-use planning and guidelines for forest-urban interface zones can prevent or mitigate impacts; (12) A parallel market has been created for land sales: in general, prices depend on land use, and higher prices can be paid by those promoting activities for urban uses than by agricultural users. Planning and regulations are needed to protect activities such as agriculture or value-added agro-industry and promote sustainable local development; (13) Fertile soil is covered over by growing cities and more second homes in rural areas, and risks of fires and flooding increase as a result of mass tourism (alpine ski resorts, summer sports installations, little-used of urbanisations for seasonal residents, and so on). This is detrimental to other, more sustainable activities

but could be avoided by prioritising the remodelling of older buildings in city centres, limiting expansion to land of low agricultural quality, and facilitating sustainable rural development; and (14) Isolation, limited accessibility, and small populations are a disadvantage of rural mountain areas. Quality services must be ensured in order to alleviate these problems.

Each region specialises in products with comparative advantage in relation to other regions: natural and locational advantages but also better use of intensive or extensive factors and resources. A brief history of the Comparative Advantage could be summarising in five contributions:

- David Ricardo raised the theory of comparative costs between regions according to their natural or historical conditions which are based on different rent according to soil quality;
- Henrich von Thünen added in the costs of transporting goods and services, assuming territorial homogeneity which implies a different rent according to location;
- Eli Heckscher and Bertil Ohlin Model considered regional geographic variations in the characteristics of productivity factors according to intensity of use. Differential exports and imports, based on exporting value-added goods and services that require intensive factors it possesses in abundance and importing those requiring intensive factors it lacks. They have introduced the productivity and added value concepts;
- Gunnar Myrdal advanced the centre-periphery model where peripheral regions can take advantage of uneven development benefitting the centre, offering small and medium enterprises (SMEs) a comparative advantage through innovations, social networking (spatial loyalty), and less pollution and traffic congestion, compared to the centre; and
- Earling Olsen (1971) argued that all regions have a “relative advantage”, measurable by the opportunity cost of an activity. That region’s comparative advantage derives from specialising in the activities for which it is best endowed. The Second Best Option (SBO) has its roots in this contribution (Tulla, Pallarès-Barberà and Vera, 2009).

Myrdal’s Centre-Periphery model contrasts the urban “centre” and the rural “periphery”. Then, local development can be explained by reinterpreting the Principle of Comparative Advantage developed by the Classical School of Economics. Finally, we may assume that “each country will specialise in those goods and services that they can better produce, instead of producing all the goods and services they need” (Pallarès-Barberà, Tulla and Vera, 2004).

### *3. Methodological Considerations*

The Second-Best Option (SBO) method, based on the Theory of Second Best where the “Pareto optimality presents an assumption at which only one of the necessary conditions is missing” (Lipsey and Lancaster, 1956) can be combined with the Comparative Advantage Theory. Our research is based on the idea of lacking a condition for regional development in a mountainous area. It could be a different condition in each case (e.g. a lack of enough snow in sky mountain resorts). The SBO could be presented like that

“each local territory may develop an activity or offer a service that remains the best possible area of specialisation for that territory even if other places may be best suited for it” (Tulla et al., 2017a: 29).

We will present a fictitious example, where the rows are diverse activities or services which can be located in any of different regions (columns). It can be used multiple evaluation methods to calculate the value of each activity or service in each region (Cendrero, Díaz and Sainz de Omeñaca, 1975; Orloff, 1978; Ramos, 1979). We have used four hypothetical activities and land uses: A protected natural area, some extensive residences, a reservoir and a dam, and a professional school of agriculture. This example reflects a Comparative advantage approach using the SBO as a methodology to select activities and land use possibilities. Results can be presented in the Figure 2.

We have also studied the three Comparative Advantage cases through literature review and doing 30 interviews in depth to some of the expertise and several entrepreneurs in the activity in the districts (*comarques*) of the HP&A. It has been asked about the current economic situation of the district and what are the activities or services for which it is better prepared.

4. Results: Value-Added Cases

In the first case is analysed the Comparative advantage and SBO for value-added dairy products (Figure 3). The assumptions of the model are (Vera, Badia and Tulla, 2011): (i) Dairy farmers receive a higher milk price than the average in France and Spain. The difference is returned as profit-sharing to Cadí Cooperative (CC) members; (ii) Farmers pay lower prices for some inputs, such as “unified” (livestock food prepared for each farm and delivered “just in time”) from the Pyrenees Cooperative (PC); (iii) The limitation of available pasture land (Gross Livestock Unit/ha) is overcome by better farm organisation,

Figure 2. Comparative advantage and the “Second Best Option” (SBO). Source: Own elaboration.

ACTIVITIES AND LAND USES	REGIONS		
	A	B	C
NATURAL PROTECTED AREAS	70%	80%	20%
EXTENSIVE RESIDENCES	50%	90%	40%
RESERVOIR AND DAM	40%	70%	50%
PROFESSIONAL SCHOOL OF AGRICULTURE	60%	75%	30%

The percentage (rows) is the maximum value (based on multiple evaluation methods) that would be obtained by a given site from a land use of activity.

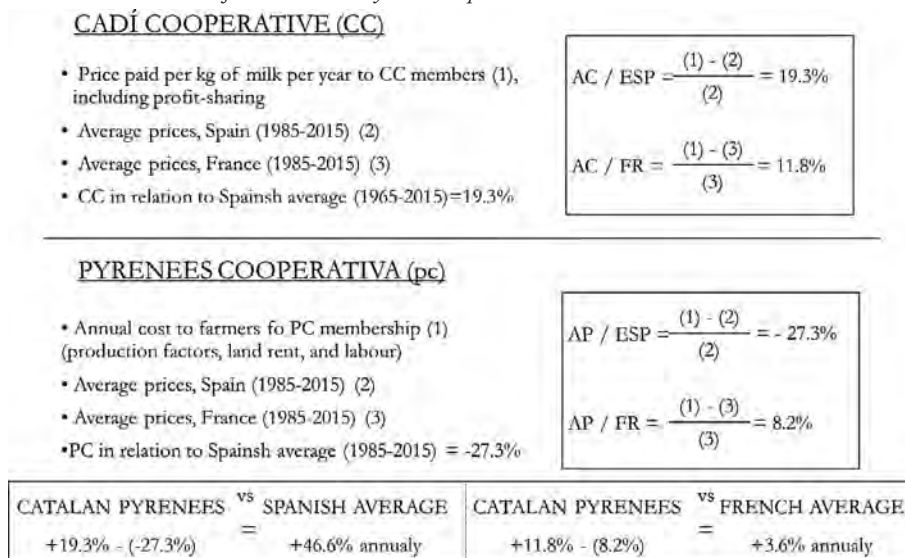
Columns shot the top value in each region for the activities and uses listed.

In the rows, circled values show the best use for each region, even if other regions have better conditions for each land use (i.e., it is the SBO, such as reservoirs and dams in Region C).

It is assumed that each region has abilities for at least one of few uses.

supervised by CC and PC: Cattle breeding is improved; Rotating farm employees within the co-op reduces labour costs; “Unifeed” reduces feed cost per kg and the need for more pastures which are limited in the area; (iv) PC services improve quality of life for farmers, for instance, labour exchange to ensure continuity for holidays and sick leave; (v) The co-op structure provides for technological innovations like cattle breeding, artificial insemination, work groups or training courses, together with leadership, and mutual assistance; (vi) Remuneration for land and farm labour below market average is offset by a “personal relationship with the land”, an off-farm job, and so on; (vii) The individual or collective capacity to renew “capital” (facilities, livestock, etc.) is essential, together with innovation, commercialisation, and market competitiveness; and (viii) Overall, farming is a good example of SBO when is a competitive activity with high productivity in a structured confluence of all assumptions.

Figure 3. Price differential for value-added dairy products. Source: Data from Cadí and Pyrenees cooperatives, INE and INSE.



The second case analyses the Organic grass-fed livestock production, based on locally grown feed crops, and takes assumes that: (i) Extensive livestock farming diversifies the mountain economy with pluri-activity that helps local development and preserves the rural agro-pastoral landscape (Barrachina et al., 2012); (ii) Extensive farming support biodiversity and environmental quality because maintains grass fields; (iii) Feed and medication controls allow to achieve an extensive organic production; (iv) If there is a knowledge of soil quality and the vitamin/mineral needs of the animals; (v) Calculation of herbaceous biomass production needed to feed the animals on site (in our research we have used satellite photos, dry production in the laboratory and microclimates); (vi) Complementary feeding: with minimum organic feed and transhumance; (vii) Established clientele of butchers and consumers, regularly supplied with products of reliable

quality; (vii) Simplification of administrative bureaucracy on the process; (viii) Access to a butcher shop or slaughterhouse to cut and prepare cuts of beef; (ix) Partnership with area producers to share effort and expense in obtaining ecological inputs, distribution channels, and quality designations; (x) Organic grass-fed livestock production can earn “denomination of origin” status if feed and pharmaceuticals are “ecological” or organic; (xi) Access to “proximity circuits” orientate to local customers, butchers and restaurants; and (xii) Recovery of heritage breeds and collaboration in initiatives such as “The Herders’ School” (*Escola de Pastors*).

Finally, the third case explores the development of value-added cultural activities related to cultural heritage and social life (du Gay and Pryke, 2002; Prados and Vahí, 2012; Pallarès-Blanch, Tulla and Vera, 2015). We present a list of the main type of activities to recover the cultural and social fabric of the Catalan Pyrenees: (1) Annual village festivals (e.g. “*Festa Major*”); (2) Livestock, agricultural, and handicrafts fairs; (3) Cultural festivals (“*Falles*”, “*Raiers*”, “*La Patum*”, “*caps grossos i gegants*” — big heads and giants —, etc.); (4) Libraries, bookstores, civic centres, gatherings of writers and painters (Bernadí and Llobet, 2010); (5) Creation and maintenance of local and county museums (related to wool, wine, ice, etc.); (6) Social activities (pilgrimages, sports, village meetings, etc.); (7) Hunting as a necessary and relational activity; (8) Maintain and promote architectural heritage (identity, catalogue, record histories); (9) Consider rural landscape and protected natural areas (PNA) as heritage: (a) conservation and promotion; (b) environmental education; (c) vision of animals and plants; (d) reconstruction and conservation of roads and tracks; (e) mountain shelters; (f) youth hostels; (g) green tourism and hiking; and (h) adventure tourism (canoeing, rapid water sports, climbing, etc.); and (10) Additional activities that can generate added value, like: (a) complementary tourist activities (electric bicycle, horseback riding, etc.) always respecting the environment and focusing on sustainability (so that future generations can make use of resources); (b) elaboration and transformation of artisan products made of wood and ceramics; (c) cultivate, select and market herbal to sell in the region and outside of it; (d) promotion and diffusion of “local brands” or “appellation of origin” that allow the commercialisation of agricultural or artisanal products; (e) industrial transformation of quality processed food products, with the aim of selling them in cities and restaurants; and (f) other activities and services (agritourist, alternative energy, information and communication technics — ICTs —, etc.) like positive naturbanisation (Tulla et al., 2017b).

## 5. Discussion

From these study cases we can present some “key elements” as indicators of how to make value-added activities possible like to: (1) Identify the best area of specialisation using the SBO method and promote economically viable value-added processes; (2) Analyse possible ways to adapt traditional activities to new objectives; (3) Develop programs of ecological (organic) agrarian activities; (4) Present Social Farming projects in combination with local government and partnerships; (5) Promote innovation and collaboration with other sectors of the community; (6) Support the human capital and social networks needed to strengthen spatial loyalty; (7) Encourage new cooperatives and other social initiatives to develop entrepreneurial projects; (8) Take into account women

initiatives which consider ecological and social networks approaches; (9) Take advantage of regional loyalty and territorial roots of local business; and (10) Define public policies and programs to help develop local projects and initiatives.

## 6. Conclusion

- Prioritise activities that promote sustainable local development like to: diversify economic activities, support endogenous development, facilitate the transformation of the primary activities in the territory, and respecting environmental protection without prohibiting indigenous activities.
- Avoid “monoculture” such as mass tourism, which can endanger the economy of rural mountain areas (unstable population, physical environment restrictions, etc.). Emphasise green tourism, new ICTs, and pluri-activity and multifunctional rural areas. Among the activities most compatible with sustainable development is extensive ecological farming, a long tradition that is respectful of environmental and landscape quality, supports green tourism, and takes advantage of natural resources.
- Transformation of dairy products generates comparative advantage. It can be done through big projects like the Cadí Cooperative but also with smaller initiatives like artisanal projects of sheep or goat cheese. The October cheese festival in La Seu d’Urgell supports diverse types of initiatives: cultural, agrarian products and social tourism.
- Naturbanisation must be controlled; including measures to reduce the risks of urban-forest interface areas (fire risk) and promote territorial and urban planning that defines land uses, in order to benefit from the new professional emigration and territorial repopulation.
- Technological innovation, spatial loyalty, and territorial roots can encourage environmentally compatible industrial economic activities and services, which help to maintain the population threshold required for certain services and infrastructures.
- Activities of high added value connecting social organisations with the economic sphere (production, transformation, innovation and distribution) can help to consolidate sustainable local development. Cultural and historical heritage are also good options for comparative advantage based in the second best option.

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**VI. BRIDGING GAPS BETWEEN URBAN EXPANSION, AND  
AGRICULTURE AND OPEN SPACES PRESERVATION**

**VI. COMBLER LES ÉCARTS ENTRE L'EXPANSION URBAINE ET  
L'AGRICULTURE ET LA PRÉSERVATION DES ESPACES OUVERTS**

**VI. TENDER PUENTES ENTRE LA EXPANSIÓN URBANA Y LA  
AGRICULTURA Y LA PRESERVACIÓN DE ESPACIOS ABIERTOS**

**VI. COLMATAR LACUNAS ENTRE A EXPANSÃO URBANA E A  
AGRICULTURA E A PRESERVAÇÃO DE ESPAÇOS ABERTOS**

*Popayán (Departamento del Cauca, Colombia, Latin America).  
Source: Picture by Valerià Paül (7/8/2016).*





*VI. Bridging Gaps between Urban Expansion, and Agriculture and Open Spaces Preservation*

According to some social scientists, May 23, 2007 marked the date when the proportion of urban population on Earth surpassed rural dwellers, while the UN certified this happened sometime in 2008. One of the obvious consequences of this shift is the need for more physical space for cities, causing urban encroachment where once there were fields, forests and other types of open spaces. Around the world there is a widespread concern about the sustainability of urban expansion as it affects food-producing farmlands, forestry industries and ecosystem services provision by non-urbanised areas. There are particular geographical hotspots, namely in China (Lichtenberg and Ding, 2008).

Peri-urban agriculture is as old as cities, but its promotion and preservation has gained momentum in the last decades in response to new concerns related to the sustainability of food production, and also in regional planning (e.g. green infrastructure provision, open spaces conservation, ecosystem services). Bengston, Fletcher and Nelson (2004) summarised some of the farmland management tools available in the United States, outlining more than 30 mechanisms for “managing urban growth” or “protecting open-space”, connoting them as “two sides of the same coin” (Bengston, Fletcher and Nelson, 2004: 273). In Europe devices such as “agri-parks” or “agricultural parks”, absent in other continents, have been developed (Yacamán and Zazo, 2015), echoing the protection mechanisms for natural areas, from national/natural parks to agriculture in peri-urban and non-peri-urban areas. However, it remains questionable to what extent these tools have been effective in avoiding urban intrusion and promoting agriculture and/or forest preservation given the intensity of urban dynamics and pressures. In particular, it seems difficult to guarantee the sustainability of urban areas while, at the same time, maintaining its farmlands and open spaces nearby.

This thematic session welcomes contributions around these questions:

- Is reconciliation possible between urban/metropolitan/spatial/city-region planning and farmlands and rural areas?
- How can agri-ecological infrastructures and frameworks be planned and designed at urban/metropolitan/spatial/city-region scale?
- What organisational tools and partnerships for urban-rural joint policies, ventures and projects have been developed and what is their performance?
- Is environmental protection in peri-urban areas compatible with farmland and rural preservation?
- How can we bridge the gap between the peri-urban farmlands understood as farming (productive) areas, on the one hand, and as green infrastructure/open space conservation, on the other?

*VI. Comblent les écarts entre l'expansion urbaine et l'agriculture et la préservation des espaces ouverts*

Selon certains spécialistes des sciences sociales, le 23 mai 2007 a marqué la date à laquelle la part de la population urbaine sur Terre a dépassé celle des habitants des zones rurales ; notons que l'ONU a certifié que cela s'était produit en 2008. L'une des conséquences évidentes de ce changement est la nécessité d'accroître l'espace physique des villes, ce qui a entraîné une expansion urbaine là où il y avait autrefois des champs, des

forêts et d'autres types d'espaces ouverts. Partout dans le monde, il existe une préoccupation généralisée autour de la durabilité de l'expansion urbaine car cette dernière affecte les terres agricoles productrices d'aliments, les ressources forestières et la fourniture de services écosystémiques par les zones non urbanisées. Il existe des zones géographiques plus particulièrement affectées, notamment en Chine (Lichtenberg et Ding, 2008).

L'agriculture périurbaine est aussi ancienne que les villes, mais sa promotion et sa préservation ont pris de l'ampleur au cours des dernières décennies, en réponse aux nouvelles préoccupations liées à la durabilité de la production alimentaire, ainsi qu'à l'aménagement du territoire (par exemple, la fourniture d'infrastructures vertes, la conservation des espaces verts, les services écosystémiques). Bengston, Fletcher et Nelson (2004) ont récapitulé certains des outils de gestion des terres agricoles disponibles aux États-Unis, décrivant plus de 30 mécanismes destinés à « gérer la croissance urbaine » ou à « protéger les espaces ouverts », les décrivant comme les « deux côtés d'une même médaille » (Bengston, Fletcher et Nelson, 2004, p. 273). En Europe, des dispositifs tels que les « agro-parcs » ou « parcs agricoles », absents sur d'autres continents, ont été développés (Yacamán et Zazo, 2015), faisant écho aux mécanismes de protection des espaces naturels, depuis les parcs nationaux/naturels jusqu'à l'agriculture dans les zones périurbaines et non périurbaines. Toutefois, on peut se demander dans quelle mesure ces outils ont été efficaces pour éviter l'étalement urbain et promouvoir l'agriculture et/ou la préservation des forêts, compte tenu de l'intensité des dynamiques et des pressions urbaines. En particulier, il semble difficile de garantir la durabilité des zones urbaines tout en maintenant à proximité des terres agricoles et des espaces verts.

Cette session thématique est ouverte aux contributions portant sur ces questions suivantes :

- Est-il possible de concilier l'aménagement urbain/métropolitain/territorial/des villes-régions et celui des terres agricoles et espaces ruraux ?
- Comment aménager et concevoir des infrastructures et des cadres agro-écologiques à différentes échelles (urbaine/métropolitaine/territoriale/de ville-région) ?
- Quels sont les outils organisationnels et les partenariats dédiés aux politiques, entreprises et projets conjoints entre zones urbaines et rurales qui ont été développés ? Et quels sont leurs résultats ?
- La protection de l'environnement dans les zones périurbaines est-elle compatible avec la préservation des terres agricoles et rurales ?
- Comment combler le fossé entre, d'une part, les terres agricoles périurbaines considérées comme des zones agricoles (productives) et, d'autre part, les infrastructures vertes et autres espaces verts de conservation ?

#### *VI. Tender puentes entre la expansión urbana y la agricultura y la preservación de espacios abiertos*

Según algunos científicos sociales, el 23 de mayo de 2007 marcó la fecha en la que la proporción de población urbana en la Tierra sobrepasó a la de habitantes rurales, mientras que la ONU situó este hecho en algún momento de 2008. Una de las consecuencias obvias de este cambio es la necesidad de más espacio físico para las ciudades, lo que conlleva una expansión urbana donde antes había campos, bosques y otros tipos de espacios

abiertos. Alrededor del mundo existe una preocupación generalizada acerca de la sustentabilidad de la expansión urbana, ya que afecta a tierras de cultivo que producen alimentos, a actividades forestales y al suministro de servicios ecosistémicos por parte de las áreas no urbanizadas. Existen puntos calientes en el mundo, especialmente en China (Lichtenberg y Ding, 2008).

La agricultura periurbana es tan antigua como las ciudades, pero su promoción y preservación han cobrado impulso en las últimas décadas en respuesta a las nuevas preocupaciones relacionadas con la sustentabilidad de la producción de alimentos y también con la ordenación territorial (por ejemplo, establecimiento de infraestructura verde, conservación de espacios abiertos, servicios ecosistémicos). Bengston, Fletcher y Nelson (2004) resumieron algunas de las herramientas de gestión de tierras agrícolas disponibles en los Estados Unidos, para lo que listaron más de 30 mecanismos para «gestionar el crecimiento urbano» o «proteger el espacio abierto», descritos como «dos caras de la misma moneda» (Bengston, Fletcher y Nelson, 2004: 273). En Europa se han desarrollado dispositivos tales como «agroparques» o «parques agrarios», ausentes en otros continentes (Yacamán y Zazo, 2015), haciéndose eco de los mecanismos de protección de los espacios naturales, es decir, desde los parques nacionales/naturales a la agricultura en espacios urbanos y no periurbanos. Sin embargo, plantea dudas hasta qué punto estas herramientas han sido eficaces para evitar la intrusión urbana y promover la agricultura y/o la preservación de los bosques, dada la intensidad de las dinámicas y presiones urbanas. En particular, parece difícil garantizar la sustentabilidad de las zonas urbanas y, al mismo tiempo, mantener las tierras de cultivo y los espacios abiertos a su alrededor.

Esta sesión temática acoge con especial interés contribuciones sobre las siguientes cuestiones:

- ¿Es posible la reconciliación entre la ordenación urbana/metropolitana/territorial/ de la ciudad-región y las tierras agrarias y los espacios rurales?
- ¿Cómo pueden planificarse y diseñarse infraestructuras y marcos agroecológicos a una escala urbana/metropolitana/territorial/de ciudad-región?
- ¿Qué herramientas organizativas y asociativas se han puesto en marcha para desarrollar políticas conjuntas, empresas y proyectos urbano-rurales, y cuál es su rendimiento?
- ¿Es compatible la protección medioambiental en áreas periurbanas con la preservación de tierras de cultivo y de lo rural?
- ¿Cómo podemos tender puentes entre las tierras de cultivo periurbanas entendidas como espacios agrarios (productivos), por un lado, y como infraestructura verde/ conservación de espacios abiertos, por el otro?

#### *VI. Colmatar lacunas entre a expansão urbana e a agricultura e a preservação de espaços abertos*

Segundo alguns cientistas sociais, o dia 23 de maio de 2007 ficou marcado como a data em que a proporção de habitantes a residir em áreas urbanas no Planeta Terra ultrapassou a de habitantes rurais, enquanto que a ONU situou este acontecimento algures em 2008. Uma das conseqüências obvias desta mudança é a necessidade de mais espaço físico para as cidades, o que leva a uma expansão urbana onde antes existiam campos, bosques

e outro tipo de espaços abertos. No Mundo existe uma preocupação generalizada acerca da sustentabilidade da expansão urbana, já que afeta as terras agrícolas que produzem alimentos, as indústrias florestais e a prestação de serviços de ecossistema por parte das áreas não urbanizadas. Existem *hotspots* geográficos no Mundo, especialmente na China (Lichtenberg e Ding, 2008).

A agricultura periurbana é tão antiga como as cidades, mas a sua promoção e preservação têm vindo a ganhar impulso nas últimas décadas como resposta às recentes preocupações relacionadas com a sustentabilidade da produção de alimentos, e também do desenvolvimento regional (por exemplo estabelecimento de infraestruturas verdes, conservação de espaços abertos, serviços de ecossistema). Bengston, Fletcher e Nelson (2004) resumiram algumas das ferramentas de gestão de terras agrícolas disponíveis nos Estados Unidos, para o que se libertaram mais de 30 mecanismos para «gerir o crescimento urbano» ou «proteger o espaço aberto», descritos como «duas caras da mesma moeda» (Bengston, Fletcher e Nelson, 2004: 273). Na Europa desenvolveram-se dispositivos tais como «agro-parques» ou «parques agrários», ausentes noutros continentes (Yacamán e Zazo, 2015), fazendo-se eco dos mecanismos de proteção das áreas naturais, isto é, desde os parques naturais/nacionais até à agricultura em espaços urbanos e não periurbanos. Contudo, muitas dúvidas se levantam sobre até que ponto estas ferramentas têm sido eficazes para evitar a intrusão urbana e promover a agricultura e/ou a preservação dos bosques, dada a intensidade das dinâmicas e pressões urbanas. Particularmente, parece difícil garantir a sustentabilidade das zonas urbanas e, ao mesmo tempo, manter as terras de cultivo e os espaços abertos à sua volta.

Esta sessão temática acolhe com especial interesse as contribuições sobre as seguintes questões:

- É possível a reconciliação entre o ordenamento urbano/metropolitano/territorial/da cidade-região e das terras agrárias e os espaços rurais?
- Como podem planificar-se e desenhar-se infraestruturas e marcos agroecológicos a uma escala urbana/metropolitana/territorial/da cidade-região?
- Que ferramentas organizacionais e associativas se criaram para desenvolver políticas conjuntas, empresas e projetos urbano-rurais, e qual é o seu rendimento?
- É compatível a proteção meio-ambiental nas áreas periurbanas com a preservação de terras de cultivo e do rural?
- Como podemos colmatar as lacunas existentes entre as terras de cultivo periurbanas entendidas como espaços agrários (produtivos), por um lado, e como infra-estrutura verde/conservação de espaços abertos por outro?

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## 52. Post-Productivist Agricultural Experiences in Protected Areas: The Cases of the Biosphere Reserves of Mariñas Coruñasas e Terras do Mandeo (Galicia) and Montseny (Catalonia)

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### 1. Introduction

European countryside can no longer be interpreted as it used to be, that is, in productivist terms. At present, European rural areas should be viewed from a perspective that encompasses not only their traditional role as primary goods providers. In this sense, the rural world appears intimately related to the urban one and, therefore, with the new needs derived from the latter. These needs are multiple and include the supply of food (conventional and alternative) and raw materials, being the spatial basis of new manufacturing processes and supplying differentiated areas that serve as recreational or devices of natural protection, among others.

After a brief theoretical reflection on the possible contradictions faced by the productivist and post-productivist models, this work will focus on presenting the post-productive experiences in the selected study areas, their essential features and the real scope of these productive approaches (Figure 1 and Table 1) by using a methodological approach. The case-study areas being Mariñas Coruñasas e Terras do Mandeo (Galicia) and Montseny (Catalonia).

More than 1,000 km apart, they are two contrasting areas which belong to two regional realities — Galicia and Catalonia — that differ in multiple aspects, including distinct social and productive traditions. The former includes coastal, pre-coastal and plateau lands in the Atlantic coast, while the latter is a Mediterranean mountain distant to the sea. Despite these differences, what they have in common is the voluntary commitment to implement a sustainable development project that goes beyond the obvious conservation purposes and attempts to embrace socio-cultural aspects: that is a Biosphere Reserve (BR). The areas that are analysed have their own personality and symbolism in their respective regional contexts. Hence, they have been included within the network of unique spaces that UNESCO identifies as two out of the 669 Biosphere Reserves in the world (UNESCO, 2017).

Figure 1. Location of the study areas. Sources: <http://www.ign.es/web/ign/portal> and <http://www.mapama.gob.es/es/> (accessed on 9/1/2018).

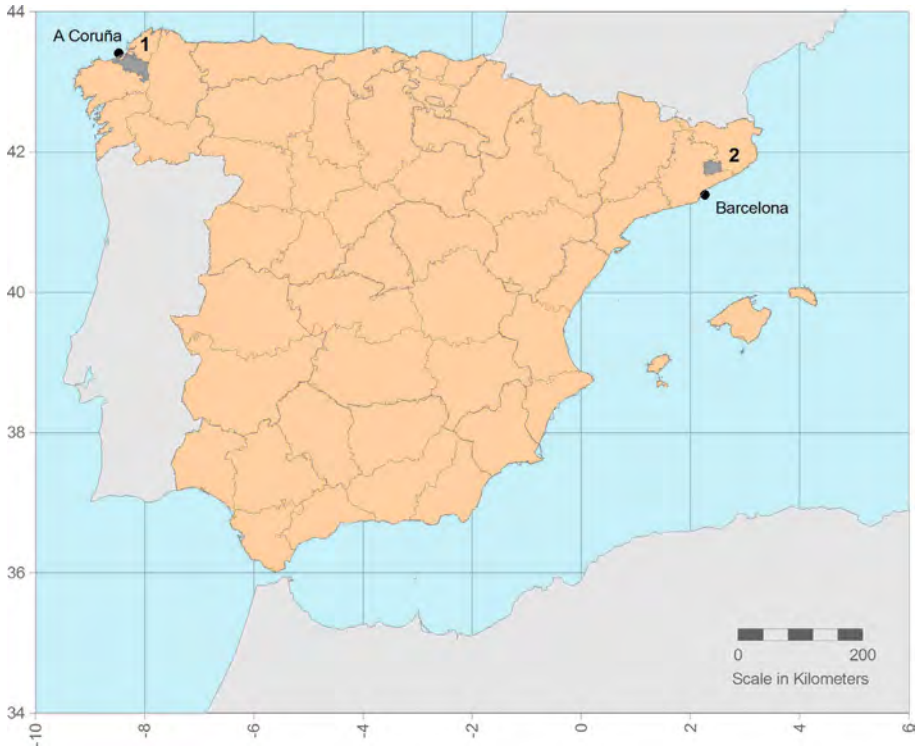


Table 1. The study areas. Sources: <http://www.ign.es/web/ign/portal> and <http://www.mapama.gob.es/es/> (accessed on 9/1/2018).

	Mariñas Coruñesas e Terras do Mandeo	Montseny
Location	Galicia	Catalonia
Designation date	28/5/2013	28/4/1978 Rev. & extended, 12/6/2014
Municipalities	17	18
Population (2017)	192,143	51,808
Total area (hectares)	116,724	50,167
Core area	6,508	9,058
Buffer zone	22,119	22,914
Transition area	88,097	18,195

There are significant similarities between both areas which need to be considered even if they are not detected a priori. Firstly, they are both supra-municipal areas shaped by their proximity to a major urban centre: A Coruña in the first case, Barcelona in the second. Secondly, their peri-urban location: the stepped landscape of the highlands of the

Mandeo which moves away from the metropolitan area of A Coruña, and a mountainous area in the case of Montseny, providing significant leisure opportunities for Barcelona's residents. Thirdly, the protection which comes from a desire to enjoy nature and farming which provides for the nearby urban communities. Finally, the opportunity for farmers to market their products in urban markets close to their production land plots.

## *2. Theoretical Considerations about the Environmental Character of Agricultural Post-Productivism*

Since the mid-1990s there have been many contributions that have shown a change in the European countryside, labelling this change with different terms that try to define the complexity of a new rural scenario in transformation: multifunctionality (Hervieu, 1997), postproductivism (Bowler, 1996; Ilbery and Bowler, 1998; Woods, 2005), post-modernity (Halfacree, 1993) and postfordism (Marsden, 1992). The serious environmental problems such as water and soil pollution, together with the gradual increase in the separation between the farmer and the consumer caused a new political orientation in the European rural environment. Because of this, their multidimensional nature (environmental, social structuring and cultural keepers) traditional agricultural activities were revalued and considered strategic in the management of natural areas (Garayo, 2001).

In spite of this, 25 years after the first major spatial and environmental reform of the Common Agricultural Policy was announced, European fields continue being places where productive philosophies, requisitions, uses, sensitivities and other conflicts converge. If the focus is on the agricultural question and its relationship with the protection of nature, the last three decades have brought important changes in the productive approaches. The emergence of European-wide regulations, such as the Nitrates Directive (1991), the Organic Agriculture Directive (1991, and reformulated in 2007) or the implementation of the Natura 2000 Network (proposed in the 1992 Habitats Directive) have raised differing challenges for the inhabitants of the European rural areas, especially to its farmers and stockbreeders. Within this context how the agricultural productive philosophies of these areas have adapted needs to be interpreted. The response by producers to these norms has had three different outcomes:

- cessation of activity;
- the reinforcement of the productivist character through the continuous capitalisation of the largest farms;
- the reorientation and/or reinvention of farms towards modalities that take respect for nature, territorial cohesion and social equity into greater consideration.

There is very little literature in the case of the areas defined as Biosphere Reserves and their relation to post-productive agricultural activity. In Spain there are only approximations with few agricultural references (de Miguel, 1999), some allusions within the patrimonial context and rural development (Lozano and Aguilar, 2008; Silva, 2010), and some contributions from ecological modelling where traditional agro-ecological systems are highlighted (Baños González, Martínez Fernández and Esteve, 2013). At the European level, Knickel and Renting's (2000) approaches stand out, where they relate, in the case of Rhöngold (Germany), the BR to tourist demand and, consequently, to the production of quality food products. Schliep and Stoll-Kleemann (2010) identify contradictions in

the relationship between tourism and traditional agriculture in three central European BRs in the Czech Republic, Hungary and Poland, while Fryś and Nienaber (2011) reveal conflicts relative to the different visions of agricultural practices that have different actors in the Bliesgau Reserve (Germany). Similarly, Wallner, Bauer and Hunziker (2007) identify conflicts in a comparison between a Swiss and a Ukrainian example.

Within protected natural areas, BRs introduce a new defining element: the consideration of the historical humanisation process of agricultural activities and their characteristic landscapes as an element to be preserved. With an international boost from UNESCO, they combine respect for, and protection of, the natural and cultural resources of a demarked area. This new approach has two implications for the present study: everything agricultural and livestock has value, beyond simple mass production and cheap food. And as a result of their specific relation with the area, either through specific returns as in the case of the Protected Geographical Indications and the Protected Designations of Origin (Tregear et al., 2007), or through an organic approach, which implies both returning to the ancestral traditions of cultivation and seeking communion between agriculture and nature (Tovey, 1997; Verhoog et al., 2003).

### *3. Methodology*

The methods used in this research followed a qualitative social research approach. The techniques consist of direct observation (in both cases the authors carried out field visits) and interviews. Interviews were conducted at local and regional levels and include BR managers, BR staff, agrifood enterprise managers, landowners, and farmers. Eight semi-structured face-to-face interviews were conducted in each case.

The analysis has been carried out in two steps. Firstly, the consultation and treatment of documentary sources and statistics from the institutions that manage the BRs and from the groups and councils that gather producers. Secondly, the above mentioned interviews were conducted with various stakeholders involved in food chains or in the management of these areas. The topics included in those interviews were structured into three blocks: socio-economic characterisation, environmental synergies and BR management — including conflicts.

### *4. The Construction of Biosphere Reserves as a Product of the Urban-Territorial Perspective: The Landscape Value of the Mountain and the Rivers*

In Mariñas Coruñesas e Terras do Mandeo and Montseny Massif the cessation of agricultural activities and their environmental and social reorientation have been important drivers. Post-productive experiences can be identified in them both, including framing agricultural products in one of the European quality schemes linked to specific areas — Protected Designations of Origin (PDO), Protected Geographical Indications (PGI) —, products promoted under labels such as “0 km” or “local products” and or organic food labels.

Parks, sites, monuments and nature reserves are largely a product of urban society, which seeks in this way to be reconciled with environmental values. Accordingly, the urban society desires to enjoy less artificial areas through healthy, traditional and authentic foods obtained by post-productive farming in designated natural areas.

#### 4.1. Mariñas Coruñesas e Terras do Mandeo BR

In this case, it is worth noting that the BR's candidacy was promoted by a Rural Development Group which had been founded through EU initiatives of rural development (LEADER-type). The group tried to stop the metropolitan expansion of the nearby city and, at the same time, showcase the landscape basins and fluvial riverbanks away from an intense process of humanisation. With the protection of horticulture (increasingly protected by organic labels), local products (cheese, wine, artisan bread) and new original developments in agriculture (such as obtaining quality hops), the post-productive paradigm associated with natural value is transcribed.

After taking the modest global volumes into account, the BR is entitled to stop the urban expansion in the metropolitan periphery on many occasions by declaring agriculturally protected rural lands. In these lands they have managed to defend the traditional vegetable gardens whose products are destined for the A Coruña market, which is specialised in seasonal fresh produce (mainly tomatoes) and organic farming. In addition, a pioneering project has managed to include vegetables from peri-urban farms into the school meals of 13 educational centres, educating the tastes and eating habits of children (this includes the total production of 8 of the 20 organic farms in the area). Thus, food is increasingly linked with middle-class residents in peri-urban and suburban areas, who want their children to eat healthy, locally produced food at schools. This includes food such as traditional products such as artisan bread from Carral, wine from Betanzos (the northern most wine produced in Spain, along with Txacoli from the Basque Country) and several, locally produced cheeses with protected designations of origin, which were not previously linked to the region. A third more complex phenomenon in its characterisation is to link special agricultural yields, such as hops, with post-productivism, since its production has been encouraged by the large nearby brewery. However, it is not about producing the base cereal (barley, rice, etc.) but a flower that introduces a bitter taste, stabilises the foam and helps with the quality of this simple fermented beverage.

#### 4.2. Montseny Massif BR

In the case of the Montseny Massif, several different factors had to converge for its designation. Firstly, the modern and holistic vision of the political, managerial and technical teams of the forward thinking (for the end of the 1970s) Provincial Councils of Barcelona and Girona (Ambròs, 2017). Secondly, there was the social and ecological awakening of a small part of the local society in the recently inaugurated democracy. Finally, the desire for cultural and natural revaluation of one of the mythical mountains of the Catalan coastal areas, and linked to this, the recovery of cultural and natural symbols of Catalanism (Ambròs, 2017). This could definitely be interpreted as an attempt to respond to what was seen as the greatest threat to Montseny: the concrete and asphalt expansion of the Barcelona metropolis. The fact that it was designated a protected area and legislated accordingly (prior to the BR, it was already a nature conservation area) meant that agricultural activities were mostly relegated to external areas. Despite being in an area where agricultural activities have lost importance due to other competitive land uses, some farms with a marked post-productivist character (especially "0 km" productions and organic farming) still maintain, in some parts of the BR, the agricultural image

that some of the visitors from the metropolitan area appreciate so much (Parc Natural del Montseny, 2010). The typically productivist farms in this area are located in one of the border areas of the Transition Zone.

The will to stop urban construction is also identified, although with the singularity of having undergone a revision of its limits and approach resulting from the evolution of the Catalan environmental legislative framework and the need to conform to the meaning of Reserve under the UNESCO's Seville Strategy passed in 1995. In the case of Montseny, the massif acts as an attractive focus for a significant flow of visitors on weekends and during holiday periods and as a lung of biodiversity in the pre-coastal area of greater Barcelona (500,000-650,000 annual visitors according to Park information). The local government has cleared the way for some actions to promote the products of the Reserve such as creating an internet portal that helps the commercialisation of Montseny products, the introduction of local products in some facilities managed by the Administration inside the BR or the promotion of fairs and local farmers' markets to sell the products produced in the area (chestnuts, mushrooms, dairy products, honey and oil, among others). 24 registered organic agriculture companies are also represented.

##### *5. Discussion and Conclusion: Conceptual Similarities and the Uneven Development of Processes in Catalonia and Galicia*

In these case-studies the post-productive approach linked to a BR not only involves producing and generating traceable returns for the neighbouring city, but it also involves one more step: to value nature by cultivating an area and obtaining unique agricultural products as Knickel and Renting (2000) and Frys and Nienaber (2010) point out. Regardless of their intrinsic food quality, these products are meant to be produced through valuing the landscape and the environment, beyond the metropolitan periphery. In both cases, the areas are considered the natural hinterland of the cities of A Coruña and Barcelona, respectively, and have a symbolic value in the social representations: the Sobrado Monastery in the first case and the Montseny Massif as a whole in the second.

Faced with the centralised and globalised supply of markets in main cities, which often seek low prices and regular supply, in recent years there has been a return to the proximity of the producer to the consumer and the value of agricultural traceability throughout Western Europe and in Spain (Fatichenti, 2014; Armesto and Gómez Martín, 2016). Although a large proportion of the food we consume comes from productivist agriculture and livestock, proximity, organic and Geographical Indications foods have managed to gain more presence in food stores and homes (Kneafsey et al., 2013; MAPAMA, 2015). This is especially evident in horticultural foods and in artisan products such as bread, dairy products or wine, and in a set of meats with denomination or with special attributes. The preferred area from where cities are supplied is close by. Additionally, if the area qualifies as protected nature, in this case BRs, agricultural post-productivism advances more easily.

In this extended abstract, the conclusions will be necessarily brief. Firstly, the urban perspective on rural areas is raised as a fundamental element to designate protected natural areas, in this case BRs. Secondly, it has been shown how this designation reinforces the symbolic value of the involved area. Thirdly, the symbolisation is easily translated into

post-productivist practices, nature packaged as quality food products being its logical result. And, finally, it will be necessary to develop more research related to the designation of BRs and other protection devices in relation to the emergence of alternative forms of farming in peri-urban and exurban areas.

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### 53. Rural Migrant Aspirations: Trajectories of Social Mobility for Kazakh Ethnic Minority Migrants

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#### 1. Introduction

The “mobilities turn” in Geography signaled a shifting of conceptualizations of spatial mobilities (Sheller and Urry, 2006) and fosters questions about the linkages to social mobilities. A primary assumption of migration studies, and of migrants themselves, is that the benefits of migrating will outweigh the costs. Implicitly this means that migrants expect that the efforts and sacrifices of relocating to a distant location will result in social and economic betterment for themselves and their families. But, while migration opens opportunities, the challenges of reassembling social networks and opportunities may be especially challenging for rural migrants. This paper considers the social mobilities of recent rural migrants.

Mongolian Kazakhs are an ethnic minority group with origins at the periphery of Mongolia. The demise of the Soviet Union first propelled this group out of the isolation of western Mongolia to the ‘homeland’ of Kazakhstan in the early 1990s, although many later returned to Mongolia. The youngest generation, however, came of age alongside the rapid and pervasive transportation and communications technologies revolution in Asia, fundamentally changing the nature of ‘isolation’ and allowing mobility trajectories and potentials to be re-imagined. In their efforts to broaden or improve their own social and economic circumstances, Mongolian Kazakh migrants find themselves negotiating a highly variable landscape of opportunities and challenges which leads many to consider migration to Ulaanbaatar.

Using a case study of the ethnic minority Kazakh population in Mongolia, this paper utilizes life history and questionnaire data collected in 2015 and 2016 to begin to assess the social and spatial mobilities of recent rural-origin migrants to Ulaanbaatar. In this paper we employ a biographical approach to understanding varied forms of mobility, including social and geographic mobilities, for ethnic minority migrants moving from a remote minority-majority province to the capital city of Ulaanbaatar. Learning more about how this population negotiates both geographic and social mobilities in the rapidly changing economic environment of Ulaanbaatar highlights the challenges and opportunities for social mobility for ethnic minority populations in developing and transitioning countries.

#### 2. Theoretical Insights

We situate this inquiry at the intersection of social and spatial mobilities, internal migration and ethnicity. Social mobilities, or the ability of an individual, family, or population group to move to a new socio-economic position within a society has long been the subject of inquiry for social scientists. Social mobilities can be horizontal, vertical,

inter- or intra-generational and may also be associated with concepts of “aspiration” as it relates to mobilities (Appadurai, 2004). Bourdieu highlighted the importance of cultural and social capital in addition to economic or financial capital as aspects of social mobility or social position within a society (Bourdieu, 1986). For many individuals and families globally, however, social mobility is tied, or perceived to be tied, closely to migration. Migration may take the form of internal rural-to-urban migration, or long-distance commuting, for example or international migration.

Robertson and Ho (2016) consider mobilities in the Asia and Pacific region, specifically spatial and social mobilities, arguing that it is through interrogating migration from new perspectives that we gain greater insights into the linkages between aspirations for upward career or social mobility and other forms of geographic mobilities. Aspirations, they suggest may be a driving factor behind migration or mobility decisions (Robertson and Ho, 2016: 6). The New Mobilities paradigm further encourages the linking of spatial mobilities with social and lifestyle mobilities, challenging theories of sedentarism in favour of broader conceptualizations of what constitutes migration and mobility (Sheller and Urry, 2006). Faist (2013: 1640), however, cautions that spatial mobility does not necessarily equate to social mobility, nor does immobility “connote stasis, decline and disadvantage”.

Ethnicity, ethnic identity and rural identities continue to garner much attention in mobilities and migration literatures, particularly as they pertain to rural ethnic minority populations. While there are an increasing number of studies engaging questions of immigration, ethnicity, and social mobility, fewer studies trace social and spatial mobilities for rural origin internal migrants (notable exceptions include Song 2016, Carruthers, 2012).

### *3. Methodological Considerations*

#### *3.1. Data and Methods*

This paper draws on data collected in 2015 and 2016 from life history interviews and questionnaires administered to recent rural-origin Kazakh ethnic minority migrants to Ulaanbaatar. 100 questionnaires and 36 life history interviews were completed over the course of two summer research periods. These interviews follow a multi-year data collection initiative of 2006-2009 (see Barcus and Werner, 2010), amongst members of the same population in Bayan Ulgii Aimag.

For this paper, we rely primarily on life history interviews and we utilize a biographical approach to develop portraits of individual migrations to illustrate the varied and multi-dimensional aspects of social and spatial mobilities for these rural migrants. McHugh and Mings (1996) demonstrated the utility of a biographical approach to understanding seasonal migration decisions amongst elders in the United States. Biographical approaches offer the advantage of a humanist perspective that privileges individual experiences in the research process and follows McHugh’s (2000) call for greater valuation of these perspectives in understanding the cycles and processes of migration. In this paper we offer three brief portraits of recent rural Kazakh migrants to Ulaanbaatar. These biographical portraits allow us to understand the varied trajectories and circumstances of mobilities

amongst these migrants. The questionnaires provide a quantitative perspective on migration to Ulaanbaatar, but the biographies, drawn from life history interviews help develop a more nuanced perspective on the migration and settlement process. Here we offer only a “first cut” of our analysis, which is necessarily limited in its full consideration of these nuanced social and economic mobility trajectories.

### 3.2. People and Place: The Mongolian Kazakhs

The Mongolian Kazakh population is an ethnic minority population in Mongolia largely clustered in the western provinces of Bayan Ulgii and Hovd Aimags as well as in Ulaanbaatar. In Bayan Ulgii, Kazakhs comprise nearly 88.6% of the total population in 2015 (NSOM, 2016: 28, 40). The population, in contrast to the dominant ethnic Khakhla Mongol population, speaks Kazakh rather than Mongolian and is Muslim, rather than Buddhist, thus culturally and linguistically differentiating the Kazakh population from ethnic Khakhla Mongols. Beginning in the early 1990s, following the dissolution of the Soviet Union, Mongolia’s Kazakh population, responding to economic decline in Mongolia and repatriation incentives in Kazakhstan, began migrating to Kazakhstan. By the end of the 1990s, nearly half of the Kazakhs who had migrated to Kazakhstan had returned to Mongolia, a process that has been documented by a range of scholars (Finke, 1999; Diener, 2009; Barcus and Werner, 2010, 2015; Werner and Barcus, 2015). Beginning in the mid-2000s, as Mongolia’s economy began to expand, a greater number of Kazakhs began migrating to Ulaanbaatar, the capital of Mongolia. While migrants still head to Kazakhstan, Ulaanbaatar has become an important destination as well, not least of all because Mongolian Kazakhs are already citizens of Mongolia and enjoy the benefits of this status.

Ulaanbaatar, however, is quite different from Bayan Ulgii. The dominant language in Ulaanbaatar, and the rest of Mongolia, is Mongolian. For Kazakhs from Bayan Ulgii and Hovd Aimags, many are not necessarily fluent in Mongolian, since the Kazakh language dominates all but official transactions (such as banking and government). Also in Ulaanbaatar, Kazakhs are dispersed across the vast and sprawling city. Kazakhs are a tiny minority, comprising less than 0.7% of the 1.4 million residents of the city (NSOM 2016).

## 4. *Results*

Here we consider the life narratives of three different migrants to Ulaanbaatar. Each of these individuals began their migration in rural western Mongolia and each identifies as Kazakh ethnically and culturally. Also, each, like many other migrants from around Mongolia, moved to Ulaanbaatar aspiring to new life opportunities for themselves or their children. Through our interviews, these aspirations reflect a careful consideration of what was perceived possible to achieve in their home communities and what is perceived to be available in Ulaanbaatar. Our three selected biographies include a young female teacher, a young male professional, and a mid-aged couple with teen-aged children. All are migrants to Ulaanbaatar and all still identify with their rural roots in western Mongolia.

### 4.1. From Herder Family to Urban Teacher

Aisulu grew up in a herding household in western Mongolia. When we visited her childhood home, her family was in their summer pasture, surrounded by green grass and

a plethora of sheep and goats. There were other summer gers nearby and this particular summer pasture was quite close to the small town in which Aisulu and her family had a winter home. Aisulu, now in her 30s, usually resides in Ulaanbaatar, where she is a public school teacher. She finished her education in western Mongolia, worked as a flight attendant, and then finished her graduate degree and became a teacher in Ulaanbaatar. For women of Aisulu's age, being unmarried and independent defies family and cultural expectations, at least in her rural and more traditional family. Despite her economic success (she owns her own apartment and is financially independent of her family), Aisulu was unmarried, until recently, and felt this burden acutely when visiting friends and relatives. The social costs of migration and success weighed heavily on her.

#### 4.2. From Rural Roots to Urban Professional

Askar greets us at the door to his modest apartment near the central square in Ulaanbaatar. He and his wife live here and are expecting their first child. Askar grew up in western Mongolia and speaks vividly of his memories of the people, family and friends, who are ever-present in his childhood memories. His parents were not wealthy but Askar was clearly precocious. At a young age he befriended a American Peace Corps volunteer, doggedly pursuing English language skills. By his mid-teens, he was advanced enough to finish school and received a scholarship to attend university in Ulaanbaatar. During his first few years in Ulaanbaatar he received funding to attend a private college in the United States, where he completed his undergraduate degree. Returning to Ulaanbaatar he landed a professional job with a large mining company. Askar feels he is lucky but must continue to work very hard. He aspires to work in international development and is contemplating an advanced degree. He would also like to stay, broadly, in Central Asia. Askar is quite frank about his success. He attributes it to support at home, good connections through family and friends in western Mongolia and Ulaanbaatar, and most importantly to hard work and determination.

#### 4.3. From Professionals to Labourers

For Aisara and her husband Dastan, the decision to move to Ulaanbaatar from western Mongolia was difficult. For their children they saw limited opportunities and felt that migrating to Ulaanbaatar would provide many more educational work opportunities for their two boys. For Aisara and Dastan, however, it was a sacrifice. Dastan was an engineer with a good job in western Mongolia while Aisara was a nurse. In Ulaanbaatar, he is a construction worker during the day and works a temporary second job in the evenings while Aisara works as a shopkeeper. Despite having to give up their occupations and work extra jobs to make ends meet, they both agree that the move to Ulaanbaatar will be worth it if the boys are able to get good educations. For now, both boys are successful in school and the family is content that the decision to leave western Mongolia, their friends and families, and to live in the outskirts of Ulaanbaatar, in the ger districts, which lack running water or sewer, was a good choice. Their decision to accept this downward social mobility upon migration, they feel, is merely a stepping-stone to greater social mobility for their children.

### 5. *Discussion and Conclusion*

In this short paper we've chosen to utilize a narrative biographical approach to understanding social and spatial mobility amongst Mongolian Kazakhs. Our objective is to describe the multi-dimensionality of internal migration and the varied social mobilities that are emerging. While these results are still quite preliminary, several themes emerge from these biographies. As a starting point, regardless of measurable levels of economic or social mobility, each individual profiled here is confident that their decision to migrate to Ulaanbaatar resulted in an improved quality of life. Each professes a sense of achievement and considers the sacrifices to be worth making. It is also clear that education and social networks are key to economic and social mobility in the city. In the words of one respondent "if you know someone who works who has a high-level occupation, they can help you when you need to get a job" (Interview #802\_0017). Those who are well connected seem to have more opportunities, however, this is only one dimension.

From the perspective of economic mobility, our biographies reveal that young people with good educations are "making it". Middle-age adults, even with higher levels of education and skills like Dastan and Aisara often sacrifice professions in rural places to create opportunity for children in Ulaanbaatar. Migration to Ulaanbaatar potentially opens opportunities for economic mobility but younger, educated migrants realize them much quicker than middle-aged migrants. Thus economic mobility for some may be characterised as intragenerational, or career based, while others will aspire to economic mobility for their children, a much longer-term intergenerational economic mobility.

Social mobilities, such as might be realized through greater respect or acknowledgement within a particular community is a bit more complex. For ethnic minorities, social mobility has complex and sometimes contradictory trajectories. For example, someone could be upwardly socially mobile within the Kazakh community, garnering broader social networks and status within this community while gaining little traction outside of this community. Although not profiled here, several of our interviewees fell into this category. Alternatively, one could be socially and economically upwardly mobile by measures of income and diversity of social networks but remain only loosely connected to social networks within the Kazakh community. In other words, one can be socially mobile but have quite different trajectory than another individual who might also be socially mobile within a different community.

In considering the role of cultural capital in social and economic mobilities, it does not seem that Kazakh cultural capital is necessarily the most important cultural capital to possess. Some of our interviews with key "leaders" in Kazakh social circles are not necessarily the most socially or economically mobile. Rather, cultural capital in this case seems to refer to either Mongol or Western cultures. For example, Aisulu has been successful because of her ability to teach English and Russian. Her language abilities allow her to work in a range of professions, including in her current chosen occupation as a secondary school teacher. Askar, in contrast, has extensive experience living and working in the U.S. as well as impeccable English language skills, which have allowed him to excel at his professional position in a prominent mining company and to aspire to a career that might take him and his family to many different countries. Thus, it seems that acquiring cultural fluency both in terms of language and social expectations for western or Russian cultures

is more financially advantageous than acquiring those same ethnic Mongol cultural fluencies, or possibly in having extensive Kazakh cultural capital.

One of the conclusions that this preliminary analysis suggests is that there may be particular social mobility tracks for ethnic minority Kazakh migrants to Ulaanbaatar. Such tracks may resonate with those of other minority populations migrating internally from rural periphery locations to large urban spaces. This requires more analysis. Other dimensions of these migration profiles that have not been developed here include the role of spatial dispersion of the Kazakh population in Ulaanbaatar and the implications for social networks and mobilities as well as the importance of ethnic identity itself as a factor in social and economic mobilities within the city. These areas of inquiry require much fuller consideration.

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## **54. The Urban Food Policy in the Milan Metropolitan Area: Rural-Urban Linkages and Protected Areas**

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### *1. Introduction*

In a global context of increasing urbanisation, the close link between agricultural production, natural processes and anthropogenic dynamics presents interesting opportunities for investigation, especially with reference to protected areas. They can be studied as potential drivers of a development able to satisfy the needs of human communities while preserving natural and cultural values. From this point of view, the southern and western portions of the metropolitan area of Milan offer an interesting field of investigation. The role of two peri-urban protected areas, the Ticino Valley Regional Park and the South Milan Rural Park, seems to be particularly significant. These entities are very different from both the administrative and the territorial point of view and they are dedicated to the protection of different values. However, they can be studied as parts of a large protected space that embraces Milan, restraining urban development, sustaining the preservation of agricultural practices (that already exist elsewhere but only in residual form) and protecting a natural and cultural heritage rooted in the rural values of the local system. A specific element of interest in this context concerns not only the practical role of peri-urban protected areas, but also their narrative function. The stereotyped representations related to the rurality of these peri-urban places support practices of valorisation of the local system not always based on reality, but sometimes on a distorted perception of it.

In this context, this contribution has three main objectives. First, to investigate how, in the post-Expo 2015 period, a change is taking place in the policies related to the production and distribution of food for the city of Milan, from a stage characterised by spontaneity, to a more structured one through the construction of an Urban Food Policy (UFP). A second objective is to verify the real effect on the daily-lives of individuals of such increasingly structured UFP. Specifically, it is interesting to check the different



territorial effect of spontaneous networks and of formal policies. Finally, it is important to study the role of Milan's peri-urban protected areas for practical preservation of effectively rural and/or natural areas to be enhanced through the UFP, as well as their role from a narrative point of view, affecting the perception of the territory by the residents of the urban area.

## 2. *Theoretical Insights*

The conceptual and political shift that characterises the last two decades of debate about the relationships between food and the city is founded on the acknowledgement of the existence of an “urban food system”, defined as the chain of activities related to the production, processing, distribution, consumption and post consumption of food including institutions and the related regulatory activities (Pothukuchi and Kaufman, 1999).

There is gradual acknowledgment of the identification of the city as a scale for thinking, planning and managing the food system, through the emergence of an “urban food planning” (Morgan, 2009) and the development of UFP.

First developed in North American and British cities (Blay-Palmer, 2009; Morgan and Sonnino, 2010; Calori and Magarini, 2015), UFP can be defined as voluntary policies aiming at changing the city food systems (Moragues et al., 2013) and influencing the way food is produced, distributed, purchased, consumed and disposed of by urban dwellers.

With a more political vision, we might say that the common thread of such policies is as follows:

[T]he political desire to address the socio-ecological problems associated with or generated by the industrial food system, including some or all of the following: planning barriers to urban agriculture, diet related diseases, carbon footprints, land conservation, food poverty, junk food clusters, urban–rural linkages and supermarket power. (Morgan, 2015: 1388).

A recent wide-scale study reported at least forty significant examples of officially approved and implemented UFP worldwide, most of them concentrated in North America and Europe (Calori and Magarini, 2015). Considering the signatory cities of the Milan UFP Pact, launched during the Milan Expo 2015, we might say that more than 150 cities all around the world are officially committed to work to develop more sustainable, inclusive, safe and resilient food systems.

Moragues-Faus et al. (2013) identify the main thematic fields European UFP generally deal with (e.g. health and wellbeing, environment, community development, food security, social justice, etc.), stressing the role that such policies have in rethinking urban-rural linkages.

One of the main purposes of UFP, indeed, is to go beyond the conceptual and practical separation between urban food consumers and rural food producers, considering them as part of the same “community food system” (Feenstra, 1997), at the city-region scale (Dansero et al., 2017).

This aim is often translated in the objective of a partial relocalisation of food provision flows, through the support to initiatives of local food production and provision in most

of the cases grounding on policies fostering urban and peri-urban agriculture (Morgan, 2015).

A review of the most relevant UFP (Pettenati, forthcoming) shows how they consider professional urban (and peri-urban) agriculture (UA) from two main perspectives.

The first is the connection between the creation of a local economy of food production and the sustainability and the justice of a local food system. Many UFP focus on the potential of “land based jobs” (Bristol City Council, 2013: 15), on the importance of safeguarding land for food production (ibid.) and guaranteeing affordable farmland around the city (DVRPC, 2011), on the development of a sustainable professional agriculture at the metropolitan scale (Région de Bruxelles-Capitale, 2015) and on the need to use public agricultural areas for food production (Comune di Milano, 2015).

The second perspective relates to spatial planning and the role that UA can play in containing urban sprawl and helping the sustainable management of green areas around the city. What distinguish UFP from previous sectoral UA and spatial planning policies is the awareness of the need to consider the support to UA urban and peri-urban agriculture in terms of not only land use and planning policies, but developing instead a new planning and management approach, addressed to the whole food system, of which UA and productive urban and peri-urban landscapes are elements, connected to all the others. Urban and peri-urban agricultural land is thus considered as a “key infrastructure” (Bristol City Council, 2013: 21) of local food supply chains, together with logistics facilities, markets, and so on.

### *3. Methodological Considerations*

This contribution aims to study Milan UFP, devoting specific attention to the effects of this policy on the relationship between urban and peri-urban areas protected by natural parks.

The research is based on a qualitative methodology aimed at looking for valid interlocutors in institutional and non-institutional actors of the territory in order to understand the real impact of urban policies on the daily practices of individuals. The research specifically addresses the different points of view expressed by actors resident in the urban area and in the metropolitan area. A specific focus is therefore dedicated to understand the effects of UFP on narratives activated by protected peri-urban areas, experienced and interpreted in different ways by residents and occasional users from the city centre. The research therefore investigates the effects of UFP on the territory, considering peri-urban protected areas not only as a basic datum on the administrative characteristics of the context, but also considering protected areas as active and fundamental subjects in the development processes of the territory in hybrid contexts (urban, rural and natural). The values of land use assume therefore a specific centrality in their relationship with the meanings attributed by individuals to the territory.

For this reason, it is essential to adopt an approach to the theme of protected areas coherent with the new paradigm (Phillips, 2003), proposing an integrated vision of parks as active protagonists of territorial processes (Depraz, 2008) and considering their fullness not only in their ability to perform defined preservation actions, but also in their ability to manage hybrid and dynamic territories (Zimmerer, 2000). From this point of view, the

aims of protected areas and the needs of local populations are interpreted as fulcrums of a system not only to be defended from the pressures of the context, but to be used within a circuit that integrates environmental regeneration and socio-economic development (Peano, 2013).

In the research context, the protected areas thus allow to pursue a twofold objective: to maintain agriculture, through economic development and productive potential, and to create spatial and functional relations between urban and rural areas in the same places. The policies proposed by these parks, with an explicit agricultural vocation, are not exclusively aimed at strengthening the primary sector, but rather at an integrated management of the needs of both humans and nature, in order to promote local development and global competitiveness of rural areas located close to urban centers.

Faced with the well-known processes of urban diffusion, specific policies are becoming able to integrate the cultural and natural values present in the hinterland within the ongoing urbanisation process. For this reason, agricultural parks can be read as an opportunity for integration and a properly structured UFP can be able to meet many complex needs of metropolitan areas.

#### *4. Results*

The research has primarily reconstructed the stages of evolution of the UFP of the Municipality of Milan. The historical reconstruction was fundamental to understand the current policies expressed by the Municipality, the keywords used, the actors involved and the critical issues.

The strategy of the Municipality for rural areas has shifted in the last decades from a dualistic vision where these were considered mostly residual spaces, to a new rural-urban integration narrative.

The interest in the rural heritage within the boundaries of the city started in the Seventies, when the municipality developed a plan for the rehabilitation of the traditional farmsteads (Comune di Milano, 1977), but the initiative was mainly aimed at reconvert-ing rural constructions into something new, more useful to the urban population.

In the following decade the speculation about potential uses of peri-urban areas reached its peak, causing the reaction of the citizens that led to the institution of the South Milan Rural Park, in 1990. This event can be considered a sort of starting point of a new phase of cooperation between rural and urban spaces, but it took twenty years before this idea was translated into policies and projects. In the meantime, a few groups of citizens developed small-scale projects introducing local food production as a concept for a more responsible consumption; some of the initiatives became then part of the comprehensive policy promoted by the local government.

It was around 2010 when some projects based on this view started to be considered: the dossier that won the competition for Expo 2015, in 2008, mostly overlooked the issue of the rural heritage in the city, but the 2010 Expo Masterplan was already based on this new narrative. In 2011, the first Milan Rural District (DAM) was founded and in the same year a left-wing coalition won the local elections campaigning on this issue: the political program of the new mayor included specific commitments supporting local-based agriculture and the integration of rural and urban spaces (Pisapia et al., 2011: 11-15).

The 2015 World Exposition promoted hundreds of initiatives in food and rural spaces, inside and outside the area of the fair. Two projects are more relevant for our study: the “Milan rural metropolis” Agreement for Local Development (*Accordo Quadro di Sviluppo Territoriale* — AQST) and the Milan UFP.

The AQST, signed in 2015-16 by local administrations, rural districts and irrigation authorities, is explicitly aimed at “the reinforcement of the rural matrix of the metropolitan territory of Milan”. Within this framework, the actors involved have produced a number of projects, concerning irrigation systems, environmental rehabilitation, architectural heritage and sustainable tourism.

The Milan UFP is a strategy developed by the Municipality in order to address in a comprehensive way all the aspects related to food that are usually under the jurisdiction of separate administrative bodies. In this document the integration of rural and urban planning is explicitly envisaged (Priority 2, Principle 5), as well as the strategic focus on local-based agriculture (Priority 2, Principle 2).

The last remark on this political transition concerns the role of protected areas in the framework designed by the UFP. Looking at the documents cited, environmental protection appears to be a foundational element, but the place for parks in this process is less evident. Even though the conservation of biodiversity is recalled in all these documents, no mention can be found of a specific role played by protected areas. In practical activities, there is not at all an opposition between the UFP and the protected areas, and the Rural Park is partner in many projects implemented under the AQST, but the two strategies seem to respond to different spatial patterns. The UFP is based on a strategy of integration between rural and urban spaces, while the park, although much has been done in order to adopt a more flexible vision of environmental protection, is still more associated with a dualistic vision of the relationship between the city and Nature.

The tension between these two different spatial patterns is confirmed in the interviews with peri-urban farmers. In the South Milan Rural Park the farmers appear to be more focussed on a rural-urban integration strategy, while in the Ticino Valley Regional Park the environmental concerns are explicitly addressed by a number of farmers and agriculture is often presented as an alternative to the dominant urban-centered spatial structure.

##### *5. Discussion and Conclusion*

The paper aims at studying the possible reconciliation between urban/metropolitan/spatial/city-region planning and farmlands and rural areas. The analysis is focussed on peri-urban natural areas and UFP examined as two sides of a wide policy aiming at joining territorial actions into the metropolitan area of Milan. A specific focus is thus to be provided on the importance of the environmental protection of the peri-urban areas, to preserve the natural environment as well as farmland. In this context the UFP seems to be a potentially powerful instrument to merge urban policies and periurban-rural needs. UFP can be the instrument to bridge the gap between the urban and the peri-urban area characterised by the presence of the natural environment and production in agriculture. Parks, as well as UFP are therefore potential tools for a greater territorial integration that is producing an increasing hybridisation in the concrete values expressed by places in their

materiality as well as in their narrative meanings, strongly relevant in their effects on the “espace vécu” (Fremont. 1976) of individuals.

With reference to the research main objectives, we have found in Expo 2015 a turning point for the policies related to food: the construction of the UFP is actually the sign of a transition to a more structured relationship between consumption, distribution chains and production. This change has relevant effect on the daily-lives of individuals that actually are finding in formal policies the occasion to give a concrete form to single and spontaneous initiatives often isolated and without real effect.

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## **55. Des démarches innovantes pour la préservation du foncier agricole dans les territoires périurbains et ruraux : émergences, trajectoires, effets territoriaux. Une lecture à partir de deux initiatives françaises (Auvergne)**

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### *1. Introduction*

Portée par des enjeux environnementaux, de cadre de vie ou d'approvisionnement alimentaire, la question foncière figure aujourd'hui parmi les enjeux essentiels du développement territorial durable (Bertrand, 2013). Si la préservation du foncier agricole occupe une place centrale dans les débats, la maîtrise de la redistribution du foncier agricole et la problématique de l'accès au foncier, comme les modes de production pratiqués, font également partie du renouvellement des enjeux de gouvernance foncière. Les modalités de maîtrise du foncier, de son usage ou de son appropriation, sont affichées comme l'une des clés de compréhension des voies de développement territorial durable.

En France, le foncier exploité en faire-valoir direct ne représente plus que de l'ordre de 25 % de la SAU, qui résulte de dynamiques croisées, d'éclatement de la propriété et de concentration des exploitations agricoles pendant des décennies. Cependant, les formules de structuration de la propriété se diversifient et se complexifient et offrent de nouvelles modalités de rapport propriété-usage : développement de la propriété sous forme sociétaire, accroissement de la propriété publique, émergence de nouvelles formules de propriété collective.

La communication porte sur la caractérisation des innovations relatives à la relation propriété-usage foncier et la compréhension des facteurs de ces initiatives foncières innovantes : comment des acteurs institutionnels et des collectifs citoyens se saisissent des questions agricoles, et innovent en matière de foncier ? Quels sont les facteurs expliquant la mise en place de telles démarches et les enjeux associés (environnement, alimentation, autonomisation, transition, etc.) ? Y a-t-il des conditions territoriales de l'émergence de ces initiatives, de leur développement et leur pérennisation ? Quelles sont les implications territoriales de ces innovations foncières ?

## 2. *Considérations théoriques*

Au-delà des outils institutionnels, et parmi les nouvelles façons de préserver le foncier agricole dans les territoires sous tension, figurent des démarches citoyennes qui se présentent comme innovantes. Elles procèdent d'actions collectives et s'inscrivent dans des formes d'engagement militant, visant et revendiquant de plus en plus de l'activation des transitions à la fois écologique et sociale.

Nous pouvons caractériser ces démarches d'innovations sociales en tant qu'elles sont des processus d'invention, de soutien, de mise en œuvre de solutions nouvelles à des problèmes ou à des besoins sociaux (Phills, Deiglmeier et Miller, 2008). Appliquées aux initiatives foncières, ces innovations toucheraient au renouvellement des rapports propriété — usage visant la transition vers des modes de développement territorial durable.

Les innovations sociales sont conçues comme des processus. L'innovation sociale a une dimension temporelle forte, puisqu'elle repose sur la création, l'adoption et la diffusion dans un contexte et un temps situés dans l'histoire. Qualifier une innovation sociale dépend fondamentalement du contexte historique, mais également spatial : sa mise en œuvre repose alors sur la supériorité supposée, telle que perçue par les acteurs, par rapport aux solutions ayant existé par le passé ou par rapport à des solutions existant ailleurs.

Le cadre d'analyse retenu est donc celui de l'analyse processuelle pour saisir les trajectoires des actions collectives. La dimension temporelle est inhérente aux processus d'action collectif. Dans le cadre de cette recherche, nous nous sommes appuyées sur un cadre d'analyse processuelle développé par Mendez (2010) qui permet d'avoir une vision globale d'une trajectoire d'action collective et d'en analyser le lien au territoire. Dans cette approche, quatre concepts sont mobilisés pour reconstituer la dynamique territoriale. La place donnée au contexte permet de relever les ingrédients, c'est-à-dire les éléments du contexte agissant directement sur la trajectoire. On distinguera ceux ayant été mobilisés dans le cadre de la démarche collective de ceux ayant été créés par cette initiative. Ceux-ci sont mis en mouvement par des moteurs. Partant du postulat qu'une trajectoire n'est pas homogène mais peut être découpée en étapes, on relèvera des séquences constituées par un ensemble d'ingrédients et un moteur particulier. Lorsque la configuration d'ingrédients et le type de moteur évoluent, suscitant une réorientation de la trajectoire, on parlera de bifurcation.

## 3. *Considérations méthodologiques*

La recherche relève d'une approche empirique de nature inductive. Dans cette partie, nous présenterons les terrains et la méthodologie retenue.

Un premier temps a été consacré à des enquêtes exploratoires auprès d'acteurs ressources pour identifier des actions foncières innovantes en matière de conception des rapports propriété — usage. Cette étape nous a permis d'identifier deux initiatives relativement anciennes et qui permettent une analyse des processus à l'œuvre sur un temps donné : la ferme de la Mhotte, ferme collective initiée dans les années 1970 dans l'Allier ; le verger-test des Cheires (Puy-de-Dôme), dont la dynamique de mise en œuvre relève d'une démarche datant des années 2000.

Dans un second temps, nous avons formalisé les trajectoires d'action collective à partir d'une collection d'entretiens semi-directifs auprès des acteurs des deux initiatives retenues



(20 entretiens pour les deux initiatives). Les entretiens ont été enregistrés et retranscrits afin de repérer et croiser des éléments précis sur les temporalités des initiatives, pour relever les éléments de discours tenant des représentations et logiques des acteurs rencontrés. Nous avons analysé le matériau obtenu en troisième temps.

Les initiatives investiguées ont ensuite fait l'objet d'une représentation graphique pour restituer le schéma des deux trajectoires (le contexte d'émergence, les ingrédients, les moteurs de l'action ainsi que le séquençage en termes de développement des initiatives) afin de les comparer dans un quatrième temps.

#### 4. Résultats

Les résultats sont de deux natures : (1) documentation des trajectoires des initiatives foncières innovantes ; (2) analyse des conditions territoriales de ces initiatives.

##### 4.1. Analyse de deux trajectoires d'innovations foncières

- La ferme de la Mhotte

Avant la ferme de la Mhotte, c'est une école Steiner qui s'installe en 1976 dans le Bocage bourbonnais, à l'initiative d'un petit groupe d'anthroposophes parisiens. Celle-ci est à l'origine de l'installation d'autres entreprises (la NEF, maison d'éditions...) ou d'associations alternatives (Foyer Mickaël) liées à la société anthroposophique. En 1991, trois associés ont l'opportunité d'acquérir avec l'aide de porteurs de parts réunis au sein d'une Société Civile Agricole (SCA) la ferme de la Mhotte, la ferme voisine de l'école où sont installés un jardin botanique, des gîtes, le magasin biologique l'Echoppe, une association culturelle « le Chant des possibles » ainsi qu'un agriculteur (Figure 1 et Figure 2). Néanmoins à partir de 1997 deux crises se succèdent. Le projet du jardin botanique fait faillite et un procès ainsi qu'un redressement fiscal fragilisent la situation financière de la ferme. Seul un couple reste sur place. Il reçoit le soutien financier de deux Allemandes et grâce à la vente d'une partie du foncier, les acteurs de la ferme arrivent à rembourser petit à petit les dettes.

En 1999 cependant, une commission parlementaire d'enquête sur les sectes montre du doigt la société anthroposophique et notamment les écoles Steiner. Ces accusations ont pour conséquence le départ de plusieurs entreprises du territoire et la fermeture temporaire de l'école de la Mhotte suite à une chute des effectifs scolaires. A la fin de cette troisième séquence, en 2005, un couple rejoint les deux fondateurs et crée une entreprise d'équitation. L'année suivante, un tournant s'opère avec l'arrivée de deux artistes parisiens désireux de redéfinir le projet social de la ferme et de favoriser une croissance démographique. Deux maraichers viennent rejoindre la démarche et s'associent en Groupement Agricole d'Exploitation Commune (GAEC) et le collectif s'organise progressivement avec l'instauration de réunions régulières. Des financements européens permettent de lancer le projet « Fabrique de culture » qui travaille à la mise en place d'une signalétique au sein du lieu et un site internet. Au cours de cette période, « le Chant des possibles » devient « le Champs des possibles » et des événements culturels sont plus largement diffusés ; une gratuiterie est mise en place (bâtiment dans lequel différents objets sont mis à disposition gratuitement, sans obligation d'échange ou de contrepartie) ; des éco-volontaires ainsi que des services civiques sont accueillis.

*Figure 1. Le bâtiment de l'école Steiner, ferme de la Mhotte.  
Source : photographie des auteures (15/6/2017).*



*Figure 2. Les terres maraîchères, ferme de la Mhotte. Source : photographie des auteures (15/6/2017).*



Enfin, en 2012, le remboursement des dettes arrive à terme et une nouvelle réflexion émerge sur la volonté de sécuriser la propriété. Le fonds de dotation Terres Franches est créé dans cet objectif et les porteurs de parts de la SCA sont invités à les céder au fonds. En parallèle, un travail est réalisé sur l'identité de la ferme. D'autres financements européens permettent de mettre en place une ressourcerie. L'Echoppe retrouve un certain dynamisme lorsqu'elle est reprise par l'un des fils du couple fondateur qui, après avoir vécu au cœur de la ferme, déménage dans une maison construite par la société Arbatis créée à cette occasion. Ils laissent ainsi la place à la nouvelle génération, l'un des deux se retire d'ailleurs du collectif. Aujourd'hui, la question de la propriété anime toujours les membres du collectif qui cherchent à acquérir également le domaine de l'école afin de maintenir la cohérence entre les deux lieux.

- Le verger test des Cheires

En 2000, la disparition des vergers sur le territoire traditionnellement arboricole de la communauté de communes des Cheires inquiète un élu ancré dans ce territoire à travers plusieurs mandats politiques (municipal, intercommunalité, Sénat). Il convainc alors les autres élus intercommunaux et communaux de mettre en place un verger de promotion et de conservation de la pomme sur un terrain appartenant à la commune de Saint-Sandoux dans le but de préserver les paysages et la filière arboricole grâce à l'installation souhaitée d'un arboriculteur. En parallèle, une manifestation autour de la pomme est lancée durant trois ans, témoignant de la persistance d'une culture locale autour de la production arboricole. Une étude sur la faisabilité du projet d'installation d'un arboriculteur sur le territoire est lancée sur la même période. Ce dernier projet obtient l'approbation de diverses collectivités territoriales (Région et département) ainsi que de l'état et du Sénat qui accordent des subventions sur 5 ans. En revanche, les deux appels à projets pour trouver un candidat sont des échecs. En 2012, un acteur en reconversion professionnelle se porte candidat et la Société d'Aménagement Foncier et d'Établissement Rural (SAFER ; les SAFER sont des organismes créés en France en 1960 pour améliorer les structures foncières, notamment par l'installation ou le maintien, via l'agrandissement, d'exploitations agricoles) lui permet de s'installer en exerçant son droit de préemption sur des vergers en production conventionnelle, qui étaient destinés à être cédés à un céréaliculteur pour l'agrandissement de son exploitation. L'acquisition de ces vergers productifs est réalisée par Terre de Liens dont ce candidat devient le fermier.

En parallèle, la commune de Saint Sandoux acquiert du foncier pour la plantation de nouveaux arbres qui a lieu au cours des hivers 2013-2014-2015 (Figure 3). En 2016, la libération de 6 ha de vergers réaffirme la volonté de relancer la filière arboricole, ce qui donne lieu à un partenariat entre la communauté de communes des Cheires, qui devient Mond'Arverne en 2017, Terre de Liens et Ilots Paysans en vue de créer un espace-test destiné à l'arboriculture, le premier en France. A cette occasion, des subventions européennes et nationales sont obtenues et l'association Ilots Paysans est créée alors qu'elle consistait auparavant en un groupe de travail informel au sein du Celavar Auvergne (plateforme réunissant plusieurs associations d'accompagnement des projets agri-ruraux en Auvergne). Les testeurs entrent en activité dès le printemps 2017 sur le verger et Terre de Liens finit l'acquisition des terrains au début de l'été.

*Figure 3. Le verger des Cheires à l'issue de l'acquisition des terres en 2015. Source : photographie des auteures (18/7/2017).*



#### 4.2. L'analyse transversale des deux initiatives

L'analyse transversale permet de dégager des éléments d'analyse sur les (i) caractéristiques de ces actions collectives innovantes en matière de portage du foncier (et des rapports propriété — usage associés) : et (ii) les facteurs déterminants à ces processus (place des acteurs et rôle des conditions territoriales).

- Les caractéristiques des deux actions collectives

Les deux initiatives s'accordent sur une vision similaire de la propriété dissociée de l'usage afin de permettre à des personnes de s'investir dans un projet sans craindre l'intervention du propriétaire. Cette conception est liée à la défense et la préservation d'une agriculture et de pratiques respectueuses de l'environnement, qu'elles soient biologiques ou biodynamiques. Les outils mobilisés sont cependant différents en termes d'échelle : Terre de Liens est une association nationale découpée en antennes régionales tandis que le fonds de dotation a pour ambition d'agir sur le domaine de la Mhotte. Les stratégies foncières mises en œuvre révèlent elles aussi des divergences. Tandis que pour la ferme de la Mhotte, il s'agit de préserver un îlot, dans la périphérie de Clermont-Ferrand, les acquisitions foncières se multiplient en vue de préserver les vergers de l'arrachage. Dans les deux cas on observe pourtant que les changements de propriétaires au cours du temps n'affectent pas un usage différent du foncier puisque la conception de la propriété ainsi que le projet en lui-même sont maintenus quels que soient les acteurs en place.

En revanche, des difficultés ont été relevées au niveau de l'ancrage territorial. Elles résultent pour la ferme de la Mhotte d'une intégration difficile parmi la population locale lors de l'arrivée des premiers anthroposophes et du rapport parlementaire ayant renforcé un isolement. En ce qui concerne le verger-test, l'ensemble des dynamiques antérieures menées par des acteurs aussi bien institutionnels qu'associatifs facilite l'implantation du projet sur le territoire mais n'empêche pas des tensions avec la population locale. Celles-ci

découlent dans chaque trajectoire des nouvelles pratiques mises en place telles que la pédagogie Steiner, l'arboriculture biologique, la propriété collective, etc. Autant de valeurs alternatives qui viennent bousculer la vision des habitants et susciter méfiance et incompréhension pouvant être liées à un manque de connaissance de ces pratiques et donc de participation voire de co-construction entre les acteurs de la démarche et les habitants du territoire.

- Les facteurs déterminants d'une action collective

Les deux initiatives nous montrent des configurations territoriales différentes. Pour ce qui est du verger-test, le territoire apparaît comme indissociable de la trajectoire : c'est à partir des ressources de celui-ci ou plutôt de leur disparition que des acteurs se mobilisent et créent de nouvelles ressources participant ainsi directement au développement économique et patrimonial du territoire. Cette démarche contribue également à faire naître des habitudes de travail entre les différentes structures associatives et institutionnelles jusqu'à permettre l'obtention de subventions supplémentaires grâce à des partenariats entre acteurs publics et privés. Dans le cadre de la ferme de la Mhotte, les caractéristiques territoriales initialement mobilisées sont exclusivement matérielles. En revanche, le lien au territoire local se construit petit à petit et il apparaît indispensable pour ancrer l'initiative localement et lui donner davantage de légitimité. Cette posture s'observe dans la diffusion de l'identité de la ferme de la Mhotte à un public plus large à travers des manifestations culturelles, la création et le renouvellement d'un site internet mais aussi par la prise de contact et l'intensification des relations avec les collectivités territoriales.

En ce qui concerne les acteurs, dans les deux initiatives, ils semblent pleinement engagés à chaque étape de la trajectoire. L'engagement des acteurs s'étend pour certains à leur vie personnelle lorsqu'ils entament une bifurcation professionnelle notamment, et constitue un des éléments d'émergence de la dynamique. Ce changement de voie professionnelle constitue une prise de risque qui s'observe également au sein du monde associatif notamment pour le lancement d'un projet sans toujours de garantie de réussite ou de rentabilité. Il témoigne d'une volonté de cohérence entre les valeurs défendues et les actions menées. La cohérence de chaque trajectoire est d'ailleurs assurée malgré les changements d'acteurs et notamment de génération au sein de la trajectoire. On a pu observer dans les deux cas que si les moyens mis en œuvre peuvent évoluer en fonction du contexte et des acteurs en place, la finalité reste la même, de même que les valeurs portées à l'origine.

Enfin, le réseau occupe une place importante et permet par exemple de combler l'absence d'ancrage territorial au départ de la trajectoire de la Mhotte par le soutien provenant de la société anthroposophique (porteurs de parts, aide financière de deux allemandes). Il joue aussi un rôle facilitateur pour le verger-test où les différentes structures sont liées les unes aux autres ce qui permet un rassemblement logique des différents acteurs pour la réalisation de ce dernier projet.

## 5. Conclusion

Les initiatives analysées se présentent en tant qu'innovations sociales autour de l'objet de préservation du foncier agricole. Les enjeux auxquels elles répondent correspondent à une volonté d'opposition générale au système dominant en développant des pratiques alternatives mais aussi un accompagnement des projets par un collectif d'acteurs. Les outils

mobilisés sont également récents mais suscitent surtout une organisation originale des acteurs, que ce soit en termes de multi-partenariat ou de logique collective de résolution de la propriété. Enfin, nous pouvons parler d'innovation incrémentale puisque ces initiatives se situent dans un processus long qui prend en compte des changements d'acteurs et d'évolution du contexte dans lequel elles se situent.

#### *Remerciements*

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## 56. L'agroécologie dans les actions politiques locales : entre enjeux de société et engagement de pionniers

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### *1. Introduction : un contexte agricole réglementaire porteur vs de forts enjeux territoriaux en périurbain*

L'évolution récente du contexte agricole a été marquée par la diffusion de l'agroécologie et par son appropriation par des acteurs variés. Historiquement elle a été structurée à l'interface entre l'écologie et l'agronomie, puis elle a été mise en œuvre dans les pratiques agricoles (de la parcelle agricole à l'exploitation et au système alimentaire) et a été mobilisée dans différents mouvements sociaux. Cette émergence a été portée par des scientifiques reconnus (Altieri, 1983 ; Gliessman, Engles et Krieger, 1998). Aujourd'hui, l'agroécologie se diffuse dans des projets politiques, agricoles et territoriaux.

En France, la légitimité politique de l'agroécologie a été formulée dans le domaine agricole par la loi d'avenir pour l'agriculture, l'alimentation et la forêt du 13 octobre 2014, qui affirme que l'agroécologie doit assurer l'amélioration de la performance économique, environnementale et sociale des exploitations agricoles. Serin et Reveneau (2014 : 230) considèrent que ce mouvement est l'occasion d'aller plus loin en faisant de « l'agriculture un projet partagé sur les territoires ».

Dans ce contexte, la transition agroécologique est un enjeu qui a une consonance particulière dans les zones périurbaines (Van Dam et al., 2017) puisque les acteurs doivent inventer de nouvelles manières de produire, d'aménager et de consommer pour assurer une meilleure préservation des terres agricoles. Même si la formulation de la transition agroécologique à ces échelles territoriales (Duru, Fares et Théron, 2014) demeure imprécise, les différents acteurs institutionnels et politiques s'y intéressent et promeuvent de nouvelles modalités de mise en œuvre dans leurs territoires. Les grandes villes et les intercommunalités sont particulièrement actives en la matière (Reboud, 2017). A contrario, la connaissance de l'action des petites communes est moins bonne mais elle existe.

En périurbain, les élus politiques locaux investissent de plus en plus aujourd'hui les enjeux agricoles et agroécologiques afin de donner du sens à leurs projets de développement territorial. Mais quel sens donnent-ils à ces enjeux : sont-ils fondamentaux au point que les élus politiques locaux se fassent les défenseurs de l'agriculture et de l'agroécologie ?

Mais reste encore à savoir de quelles agricultures et agroécologies sont-ils les défenseurs et les promoteurs !

Comment saisir les initiatives en cours et comment comprendre la diversité des situations communales ? Y a-t-il des contextes favorables à cette émergence d'initiatives ? En quoi ces éléments contextuels permettent-ils de comprendre la diversité des stratégies locales ? Ou bien ces stratégies locales sont-elles indépendantes d'indicateurs témoignant de mutations agricoles et alimentaires ?

## *2. Considérations théoriques*

S'appuyant sur un protocole centré sur le fonctionnement des écosystèmes et questionnant l'impact des pratiques agricoles (Altieri, 1986 ; Gliessman, Engles et Krieger, 1998), l'agroécologie porte des principes d'autonomie, de solidarité et d'échanges de savoirs pour structurer de nouveaux modèles. Elle inclue également le système alimentaire avec l'objectif de le relocaliser dans le territoire et de structurer une approche systémique (Dalgaard, Hutchings et Porter, 2003 ; Francis et al., 2003).

L'agroécologie qui nous intéresse est dite territoriale puisqu'elle se définit comme une action localisée, entre des enjeux agricole et environnementaux. Le territoire représente cette interface qui témoigne des collaborations entre différents acteurs. L'agroécologie ne peut être mise en œuvre sans des actions englobantes dans lesquelles « la durabilité des systèmes de production renvoie de plus en plus à des processus collectifs de négociation, de coordination, d'élaboration de projets ou de compromis, qui se traduisent par l'évolution ou la construction de normes, et dont émergent des dynamiques de développement de filières ou de territoires » (ENSAT, 2018). Les acteurs du territoire peuvent combiner différents enjeux sociaux et spatiaux en s'appuyant sur des leviers agricoles et agroécologiques. L'agroécologie territoriale est bien territorialisée puisqu'elle est liée à la volonté d'acteurs variés de collaborer pour initier un projet englobant sur un espace où ils ont une légitimité à intervenir. Ici, le territoire préexiste au projet agroécologique. L'agroécologie territoriale est aussi territorialisante puisqu'elle peut créer, renouveler, renforcer la légitimité de certains acteurs en renouvelant leurs projets. Dans les deux cas, la territorialisation de l'agroécologie rejoint ce que Magrini, Duvernoy et Plumecocq (2016) ont mis en évidence pour l'agriculture ; à savoir, qu'il s'agit d'un processus de construction mobilisant un ensemble d'interactions locales, de ressources matérielles et immatérielles spécifiques, et supposant des processus d'apprentissage collectif, de gouvernance et d'institutionnalisation.

## *3. Considérations méthodologiques*

Notre objectif a été de mettre au point une méthodologie expérimentale qui permette de repérer, de saisir des initiatives dispersées. Ces initiatives sont pour l'essentiel affaire de pionniers, donc elles paraissent bien éparpillées.

La méthodologie retenue a été orientée par notre définition de l'agroécologie territoriale. Nous considérons qu'elle permet la mise en œuvre d'actions intégratives à différentes échelles spatiales autour d'enjeux sociaux variés (alimentation, santé, environnement, cadre de vie, développement économique, renouvellement de l'agriculture). Elle cherche à combiner les différentes dimensions du territoire, telles sa matérialité, les



représentations existantes, les systèmes agricoles et les acteurs dans leur diversité, afin d'aller vers des combinaisons plus viables, vivables et soutenables (Duru, Fares et Thérond, 2014 ; Wezel et al., 2016).

Ainsi, notre méthodologie exploratoire se décompose en deux phases. La première a pour objectif de repérer des variables de contextualisation, et pour cela d'identifier les bases de données et de réaliser une cartographie à l'échelle de notre terrain d'étude (les deux départements de l'Hérault et du Gard du sud de la France qui comptent près de 700 communes). Ces variables permettent de poser, de localiser les enjeux autour de l'alimentation, de l'environnement, de la santé publique, c'est-à-dire autant d'enjeux sociaux qui sont susceptibles de mobiliser les élus locaux en faveur de l'agroécologie.

Durant la deuxième phase, sur la base d'entretiens avec les élus politiques communaux (15 communes enquêtées et 4 communes étudiées sous la forme d'un benchmark), il s'agit de voir si leurs initiatives sont guidées par ces variables de contextualisation ou bien s'ils portent un véritable projet de développement territorial dans lesquels la promotion de l'agriculture et l'agroécologie est déterminante.

#### 4. Résultats

Les résultats obtenus apportent des éléments de réponse dans différents registres.

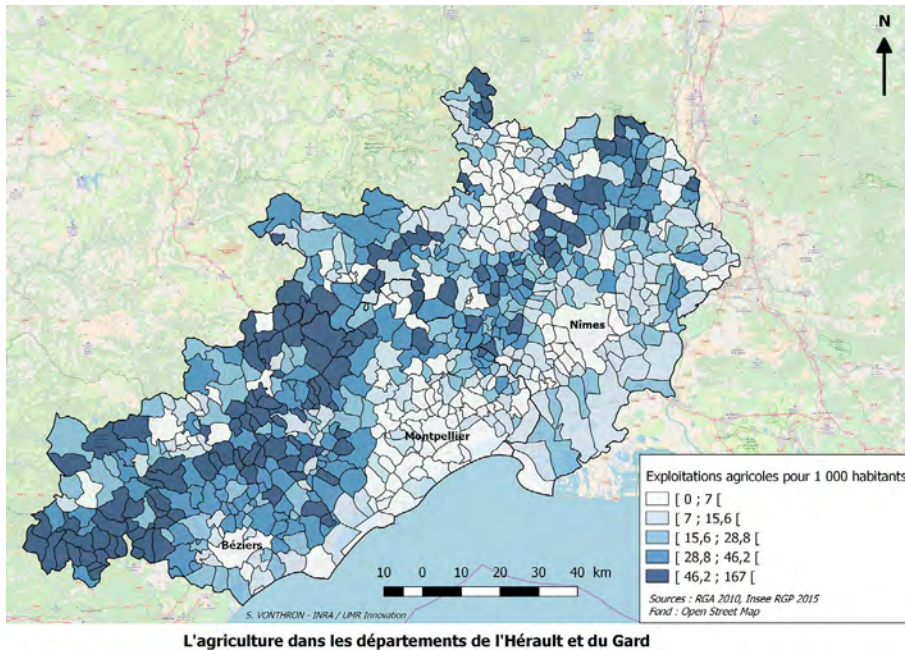
##### 4.1. Construction de la connaissance de variables de contextualisation

Les données de contextualisation que nous avons identifiées sont rarement rassemblées puisque chacune d'entre elles répond à une préoccupation sociale spécifique. Elles sont de ce fait indépendantes les unes par rapport aux autres. Nous avons cherché à construire un ensemble de bases de données consolidées pour notre territoire d'étude. Quatre variables ont été identifiées, chacune illustre une des facettes de l'agroécologie territoriale.

L'adhésion volontaire des communes au programme « un fruit pour la récré » (intégré dans le programme européen School Fruit & Vegetable Scheme depuis 2009) correspond à la volonté politique de changer les habitudes alimentaires à partir d'un effort ciblé sur les enfants scolarisés dans la commune. Cette action fait partie du programme national français Nutrition Santé. Sur les 5 700 établissements de la région Occitanie, seuls 800 participent à cette action en 2017. Le bilan effectué en 2012 (Padilla et al., 2012) montre que l'action a du mal à se diffuser en France. Il met aussi en évidence que certaines municipalités profitent de leur engagement pour favoriser leurs productions locales. Cela pourrait aller dans le sens d'une relocalisation des systèmes alimentaires considérée comme une composante majeure de l'agroécologie (Francis et al., 2003).

L'adhésion à la Charte « Objectif Zéro Phyto dans nos villes et villages » valide la reconnaissance de communes pour leur engagement dans l'abandon de l'usage de produits phytosanitaires sur les espaces publics. Cette charte vient en complément d'une obligation légale depuis 2017 d'abandon des produits phytosanitaires et témoigne de la volonté de ces communes de montrer et de communiquer sur leur engagement. Dans la région Languedoc-Roussillon, 141 communes bénéficient de cette charte soit 9 % du total des communes. 64 communes sur 141 se sont engagées au niveau le plus engageant appelé « Terre saine » qui impose l'abandon des produits phytosanitaires sur l'ensemble de l'espace public.

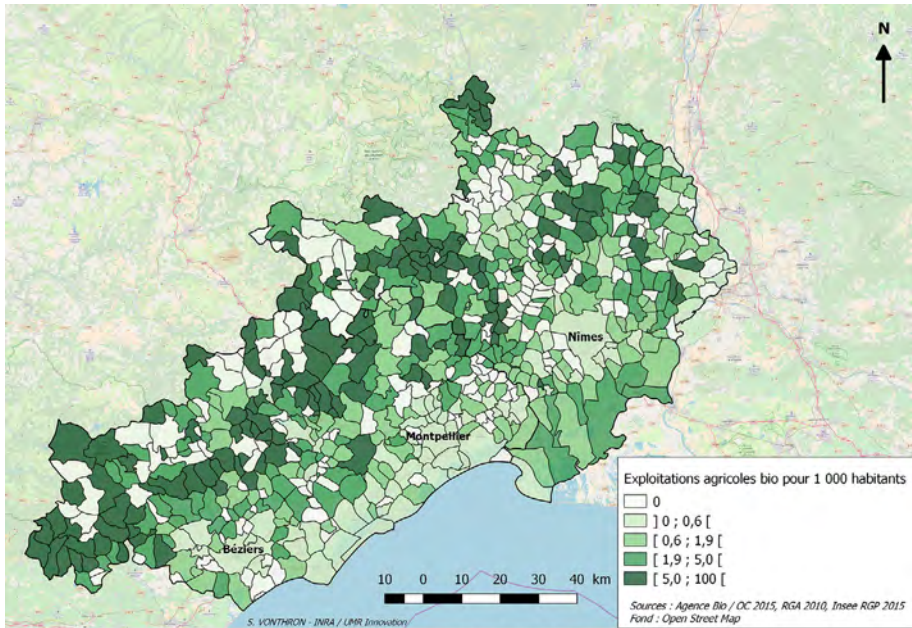
Figure 1. Densité d'exploitations agricoles rapportée au nombre d'habitants par commune dans les départements du Gard et de l'Hérault (Sud de la France). Les densités d'exploitations agricoles sont relativement faibles dans les zones urbaines autour de Nîmes et de Montpellier. Les densités d'exploitations agricoles demeurent élevées dans la partie ouest même à proximité de Béziers. Sources : base de données RGA-AGRESTE 2010 et RGP-INSEE 2015.



La présence d'un périmètre de captage Grenelle induit une obligation de mise en œuvre d'une protection environnementale autour de ces captages. La loi Grenelle 1 (Loi n°2009-967 du 3 août 2009) renforce les objectifs définis par la directive sur l'eau (1992). Elle a permis d'identifier plus précisément 507 captages menacés par de pollution diffuse. Parmi ces 507 captages, 21 dans le département de l'Hérault et 9 dans celui du Gard. Ces captages ont été identifiés selon trois critères : i) l'état de la ressource vis-à-vis des pollutions par les nitrates ou les pesticides ; ii) le caractère stratégique de la ressource au vu de la population desservie ; et iii) la volonté de reconquérir certains captages abandonnés. Les collectivités locales peuvent agir en contractualisant avec les agriculteurs et en les incitant à développer des pratiques respectueuses de l'environnement.

Enfin, nous faisons l'hypothèse que si l'agriculture et l'agriculture biologique sont visibles (par le biais de leur densité par rapport à la population communale), elles peuvent amener les élus locaux à initier des politiques agricoles (Figures 1 et 2). L'agriculture et plus encore l'agriculture biologique représentent une réalité qui peut stimuler les élus locaux dans leurs initiatives en faveur de l'agroécologie. Le développement de l'agriculture biologique peut en effet être appuyé par les communes faisant le choix de privilégier les aliments biologiques dans la restauration collective qu'elles gèrent. La réalité de l'agriculture biologique dans les départements du Gard et de l'Hérault fin 2015 était la suivante :

Figure 2. Densité d'exploitations agricoles biologiques rapportée au nombre d'habitants par commune dans les départements du Gard et de l'Hérault (Sud de la France). Les densités d'exploitations agricoles biologiques ne montrent pas les mêmes contrastes puisqu'on observe des densités élevées autour de Nîmes voire de Montpellier. A contrario, la variabilité communale est significative dans la partie ouest autour de Béziers. Sources : base de données Sudbio 2015 et RGP-INSEE 2015.



#### L'agriculture biologique dans les départements de l'Hérault et du Gard

14 % de la surface agricole du Languedoc-Roussillon contre près de 5 % en 2005 ; près de 3 000 exploitations sur un total de 27 846 exploitations (près de 10 % des exploitations) ; 80 nouveaux agriculteurs biologiques par an dans le Gard depuis 2011.

4.2. L'engagement politique local en faveur de l'agroécologie est très variable dans notre panel

Nos entretiens auprès des élus permettent d'établir une typologie en cinq catégories, montrant un fort gradient, allant d'un véritable projet politique en faveur de l'agroécologie jusqu'à l'absence d'actions en faveur de l'agriculture (Tableau 1). La catégorie une regroupe huit communes qui ont élaboré et font vivre des projets de territoire dans lesquels l'agroécologie est un véritable objectif. Les contenus de ces différents projets montrent que les cheminements sont différents mais les contenus sont relativement semblables.

Les quatre communes de la deuxième catégorie développent un intérêt et une volonté d'agir en faveur de l'agriculture en mettant en œuvre des moyens d'acquisition de terres agricoles. Elles vont plus loin puisqu'elles souhaitent ainsi s'engager en faveur de l'agriculture biologique. Les trois communes de la troisième catégorie se contentent de mettre en œuvre des aides ponctuelles en faveur d'une agriculture respectueuse de l'environnement.

Les deux communes de la quatrième catégorie n'apportent que des aides aux agriculteurs en place quel que soit les modes de production développés par ces agriculteurs.

L'enjeu est de contribuer au maintien des agriculteurs dans des contextes difficiles. Enfin, les deux communes de la cinquième catégorie ne mettent en œuvre aucune action en faveur de l'agriculture. Elles considèrent que ce n'est pas à elles de le faire mais ces maires expriment malgré tout une attention pour les enjeux agricoles de leurs communes.

Tableau 1. Engagement des communes enquêtées dans les quatre actions en faveur de l'agroécologie. Source : Prud'hon (2017).

Typologie	Nom de la commune	Un fruit pour la récré	Charte Fredon	Captage Grenelle	% Exploitation biologique
1. Politiques volontaristes en faveur d'une agroécologie de territoire	Saint-Dionisy	—	—	—	0
	Barjac	Oui	—	—	11,1
	Cazouls-d'Hérault	Oui	—	Oui	0
	Massillargues-Attuech	—	Oui	Oui	36,8
	Fabrègues	Oui	—	—	7,4
	Ungersheim	Oui	—	Oui	
	Mouans-Sartoux	Oui	—	Oui	
2. Investissements fonciers et soutiens à l'AB	Saint Georges de Reintembault	Oui	Oui	Oui	
	Montarnaud	—	Oui	—	13,6
	Paulhan	Oui	Oui	Oui	3,5
	Lavèrune	—	Oui	—	6,2
3. Aides ponctuelles pour agriculture plus respectueuse de l'environnement	Ramatuelle / Saint Tropez	—	—	Oui	
	Tornac	—	—	—	37,5
	Monoblet	Oui	Oui	—	36,8
4. Action en faveur des agriculteurs en place	La Salvetat sur Agout	Oui	Oui	—	23,08
	Saint Comes et Marejuols	—	—	—	6,6
5. Aucune action menée en agroécologie	Fraisse-sur-Agout	Oui	Oui	—	29,6
	Ceilhes et Rocozel	—	Oui	—	42,8
	Saint Félix de Lodez	Oui	—	—	16,6

### 5. Discussion et conclusion

Nous avons fait l'hypothèse que les réalités agricoles, environnementales, alimentaires contextuelles pouvaient être des paramètres permettant de d'identifier le lancement d'actions agricoles et agroécologiques par les élus politiques locaux. Si ces variables témoignent toutes de la diffusion de la pensée agroécologique, elles n'ont cependant pas le même impact.

Seule la présence de périmètres de captage d'eau potable dans une commune apparaît déterminante dans le lancement d'initiatives en faveur de l'agroécologie. L'obligation

juridique de préserver cette ressource, l'impact de la qualité sur la santé humaine sont des réalités très fortes que les élus ne peuvent pas ignorer.

Les trois autres variables témoignent de la diffusion des préoccupations alimentaires, environnementales, de santé humaine. En cela, elles constituent un contexte favorable à la mobilisation des acteurs politiques locaux et à l'expression de leur volonté de se saisir des enjeux agricoles voire agroécologiques. Les entretiens réalisés auprès des élus politiques locaux montrent qu'ils peuvent actionner ces enjeux, se les approprier et initier des actions, faciles à justifier dans ces contextes locaux.

Les variables « un fruit pour la récré » et les chartes zéro phyto sont des outils qui permettent de reconnaître les liens entre agriculture et alimentation pour la première, entre agriculture, environnement et santé humaine pour la deuxième. Ces deux variables ne sont présentes dans les communes identifiées que parce que les élus politiques locaux ont suivi les démarches nécessaires, ont exprimé la volonté de se démarquer ainsi et ont choisi de communiquer sur ces engagements. De ce fait, la présence de ces deux variables de contextualisation est déjà en soi la preuve d'un projet local agroécologique. De variables de contextualisation, elles deviennent des variables d'action politique et de projets.

La variable « pourcentage d'exploitations biologiques » témoigne de l'engagement des agriculteurs dans le changement de pratiques, indépendamment des projets politiques locaux. A contrario, ce qui est remarquable c'est que toutes les actions politiques en faveur de l'agriculture et de l'agroécologie mobilisent l'agriculture biologique. Il y a ici une unanimité de points de vue sur ces pratiques agricoles qui sont plébiscitées par les élus.

Les réalités sociales et contextuelles sont bien des éléments qui facilitent le repérage d'initiatives agroécologiques lancées par des acteurs politiques locaux. Nous avons identifié deux contextes différents de lancement de ces initiatives. Dans le premier cas, les élus se servent directement de ces leviers, comme l'action « un fruit pour la récré ». Dans le deuxième cas, ils conduisent une action originale dont on peut établir la filiation avec les réalités sociales et contextuelles étudiées.

Le deuxième enseignement que l'on peut retenir est que le lancement d'actions agricoles et agroécologiques demande une prise de risques dans des espaces soumis à de fortes pressions démographiques et immobilières. Cette prise de risques est due au fait que les élus doivent consacrer du temps, de l'énergie et des moyens pour l'agriculture et l'agroécologie qui sont marginales par rapport à leurs compétences. Ainsi, ils ne peuvent surmonter cette prise de risques que parce que les réalités sociales et contextuelles sont de plus en plus favorables à ces actions. Les élus politiques locaux qui s'y lancent montrent qu'il est possible d'agir dans ce sens au travers d'une large gamme d'actions, plus ou moins exigeantes. En ce sens, ces élus politiques locaux développent des stratégies pionnières, expérimentent sur de petits espaces, sans bousculer nécessairement les sociétés locales, les espaces communaux. Ces expériences sont donc socialement acceptables, reste à savoir comment elles pourront s'inscrire durablement dans le paysage politique local.

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## 57. De l'urgence écologique à la sécurité alimentaire : l'agriculture à Ziguinchor (Sénégal)

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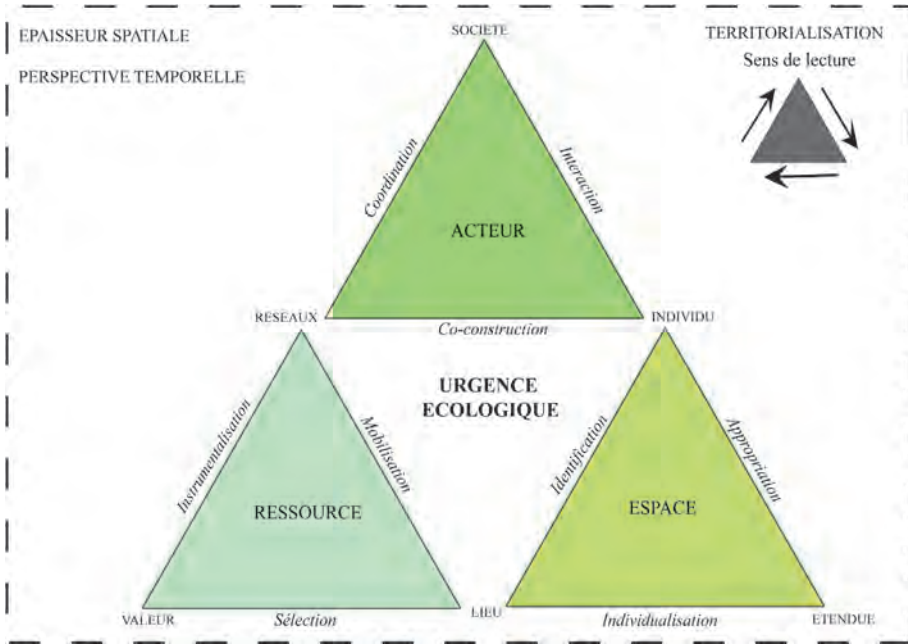
### *1. Introduction et considérations théoriques*

Comment penser une éventuelle urgence écologique dans les villes d'Afrique ? Cette question est envisagée au Sénégal, au regard de travaux menés dans la ville de Ziguinchor, au sud-ouest du pays. En fait, un article de Margetic (2017) sur « la territorialisation de l'urgence écologique » avait mis en évidence le faible intérêt des sciences sociales pour ce sujet. En retenant l'urgence comme une nécessité impérieuse d'agir, sans délai, par une action appropriée pour répondre avec diligence à une situation imprévue reconnue comme dommageable, il y a obligation de résultat immédiat et annulation du facteur temps car seule la réponse « sans plus attendre » est efficace (Sechet, 2006). Il ne s'agit plus de réfléchir mais d'agir. L'action a pour objectif de contenir ou d'annuler la situation en cause. Ces deux dimensions (obligation de résultat et annulation du facteur temps) se renforcent l'une l'autre. Appliqué à l'écologie, peut-on parler d'urgence ? Sans débattre ici du choix de l'adjectif « écologique » et non celui d'« environnemental », la démarche envisagée dans cet article de croiser l'urgence écologique à des stratégies d'action de développement territorial a conduit à la conception d'un triptyque qui va être mobilisé (Figure 1).

Concrètement, le triptyque se lit constamment de manière circulaire vers la droite à partir du haut du schéma et des figures, ce qui donne le raisonnement suivant pour les trois pôles :

- pour le pôle « acteur », les choix impulsés par la société interagissent avec les choix des individus, souvent par co-construction dans divers réseaux, le tout en coordination avec les demandes sociétales ;
- pour le pôle « espace », tout individu s'approprie une portion de l'étendue terrestre, qu'il s'attache à individualiser, ce qui conforte un ou des lieu(s) dans le cadre d'un processus d'identification matérielle et/ou idéale ;
- pour le pôle « ressource », des réseaux d'acteurs mobilisent un voire des lieu(x) sélectionné(s) au regard de valeurs, elles-mêmes instrumentalisées par les réseaux.

Figure 1. L'urgence écologique envisagée à partir du triptyque du développement territorial. Source : Margetic (2017).



Positionné au centre du schéma à l'interface des pôles, l'urgence écologique résulte d'un processus de co-construction entre réseaux et individus, ceux-ci s'attachant à identifier un ou des lieu(x) qui seront mobilisés pour « donner à lire » cette urgence et pouvoir être plus réactifs. Ce triptyque n'est pas statique. Il est à replacer dans un environnement spatio-temporel, la question des lieux et des temps étant d'autant plus prégnante que les attentes des acteurs ou les outils d'action par exemple ne sont pas figés.

Une activité affecte et est directement affectée par les cinq défis majeurs écologiques à relever à l'échelle planétaire (climat, biodiversité, pollution, croissance démographique, surconsommation des ressources) : l'agriculture, avec des enjeux forts en termes de sécurité alimentaire, de pauvreté et d'inégalités d'accès aux potentiels d'exploitation. Indéniablement, la réponse à la composante alimentaire est avant tout mondiale, différentes organisations agissant pour contrer l'insécurité alimentaire à cette échelle, dont la FAO. Selon son dernier rapport en 2017, le Sénégal souffre moins que d'autres pays africains de ce fléau tout en étant concerné. Faut-il alors mobiliser un sentiment d'urgence pour la réduire, voire la voir disparaître ?

Appliquer une éventuelle urgence écologique à la sécurité alimentaire implique néanmoins de décentrer le regard et de changer d'échelle. Les choix réalisés à l'échelle locale sont essentiels au regard des jeux d'acteurs qui peuvent se mettre en place. Dans ce cadre, les villes africaines, celles subsahariennes notamment, enregistrent les taux de croissance les plus élevés du monde. L'une des contraintes de cette croissance est que la dynamique urbaine se manifeste entre autres par un étalement urbain (Vennetier, 1989). Ces espaces



en transition sont le lieu de cohabitations et d'usages des acteurs citadins et ruraux en compétition dans l'appropriation de ses ressources et sa mise en valeur (Sakho et Sy, 2016). Les conséquences environnementales et sociales qui résultent de ces confrontations sont souvent désastreuses et très difficiles à gérer (ONU Habitat, 2014). Dans ce cadre, l'étalement urbain au détriment des espaces cultivés participe de la déstructuration de l'agriculture familiale locale, non sans incidences sur l'approvisionnement alimentaire des citadins (Bricas et al., 2003). Aussi, nous allons privilégier l'observation de l'agriculture urbaine d'une ville moyenne sénégalaise en la mettant en perspective avec le triptyque du développement territorial appliqué à l'urgence écologique.

## 2. Étude de cas

Métropole d'équilibre et capitale régionale du sud-ouest du Sénégal, Ziguinchor appartient à la Basse Casamance. Au regard de la réflexion posée, son choix se justifie en raison de deux caractéristiques qu'elle présente : son site et l'arrivée de migrants qui participent de la pression urbaine (Sy et Sané, 2015).

Positionnée dans une cuvette « étranglée » par le fleuve Casamance au Nord et des zones marécageuses respectivement à l'Est (marigot de Boutoute) et à l'Ouest (marigot de Djibélor), l'expansion spatiale se heurte à des contraintes physico-géographiques très marquées. De plus, elle souffre d'une récurrence de phénomènes d'inondations dans la plupart des quartiers anciens dans un contexte de pluviométrie irrégulière, mais globalement excédentaire au cours de ces dix dernières années. Ainsi, seule la frange urbaine sud offre, théoriquement, des possibilités de nouvelles constructions.

Or, depuis la période coloniale, l'essor urbain est continu. Pour 2012, la population est estimée à 381 415 habitants, contre 269 003 en 2009 et 155 575 en 2002 selon l'Agence Nationale de la Statistique et de la Démographie (ANSD, 2006). Déterminer avec précision ce chiffre s'avère délicat du fait de la mobilité interterritoriale de populations déplacées de l'intérieur : se réfugiant en ville lors de la recrudescence de la violence, elles regagnent leurs villages en période d'accalmie. En effet, depuis plus de 35 ans, un conflit armé larvé a entraîné en Casamance, un exode de 60 000 à 80 000 personnes et l'abandon de près de 231 villages. Nombre des déplacés se sont retrouvés dans les zones sécurisées, notamment dans les quartiers périphériques défavorisés au sud de la ville. A ceux-là, il faut ajouter les Bissau-guinéens rejoignant des parents installés localement depuis plus de 20 ans. Le taux d'accroissement de la population des deux quartiers concernés (Kandialang et Lyndiane) est respectivement de 65% et 96% pour la période 2002-2009. Ainsi, la persistance de la crise de l'économie rurale casamançaise et plus récemment la crise politique induisent la mise en place progressive d'un processus d'intégration urbaine d'espaces jusqu'alors ruraux dans des quartiers populaires. Les 4 450 ha de la superficie communale étant insuffisants ou inadaptés, cette recomposition spatiale se fait en défaveur des écosystèmes ruraux, et surtout agricoles, dans une périphérie sud favorable aux cultures : pluviales sur plateau, irriguées dans les dépressions et les marigots (riziculture et maraichage).

Ce travail s'inscrit dans le cadre d'études et de recherches que nous menons depuis près d'une dizaine d'années dans la ville de Ziguinchor et sur la problématique des dynamiques environnementales et agricoles notamment (Sy, 2011 ; Sy, Sané et Diéye, 2012 ;

Diédhiou, 2013 ; Syet et Sakho, 2013 ; Sakho et al., 2016). Ziguinchor est l'une des villes du Sénégal la plus dynamique au cours de ces dix dernières années du fait de sa position de carrefour entre la Gambie et la Guinée Bissau, sa place de plaque tournante de l'économie régionale, mais surtout du regain d'intérêt pour la région (et la ville en particulier) de la part des pouvoirs publics. Ainsi, la taille de population est passée de 255 855 habitants pour le département de Ziguinchor (dont 205 294 pour la commune de Ziguinchor) (République du Sénégal, 2017) à 168 593 habitants en 2004 (République du Sénégal, 2004). Cette forte croissance de la population urbaine sur un site très étriqué et au Plan Directeur d'Urbanisme (PDU) dépassé n'est pas sans conséquence sur les espaces périurbains et agricoles, mais aussi sur les ressources qu'ils supportent et les acteurs qui les mettent en valeur. Ce qui explique l'urgence d'agir pour préserver les zones agricoles et celles fragiles sur le plan environnemental.

### 3. Méthodologie

Les données présentées ici proviennent d'une diversité de sources : enquêtes et entretiens menés en 2016 et 2017 auprès de 248 agriculteurs et agricultrices, de 100 consommateurs, d'acteurs de la ville (chefs de services régionaux de l'urbanisme, des impôts et domaines, de la planification, des services municipaux, etc.), complétées par des résultats obtenus dans le cadre de travaux universitaires dont la thèse en cours de Diédhiou Sécou Omar. L'enquête a porté sur 170 productrices agricoles sur la base d'un sondage aléatoire simple. Les variables collectées portaient entre autres sur le profil de l'acteur principal (exploitant), l'espace de production (systèmes et techniques de production), le mode d'acquisition de la parcelle, les revenus générés, le niveau de couverture des besoins alimentaires, etc. Pour ce qui est des entretiens avec les acteurs et gestionnaires de la ville, ils portaient sur la dynamique urbaine et ses conséquences sur la pratique et la durabilité de l'agriculture urbaine. Aussi, des observations de terrain ont été combinées à des données de télédétection (photographies suite à des survols aériens lors de voyages Ziguinchor-Dakar-Ziguinchor, capture d'images satellitaires multi-dates (1968, 2004 et 2016) de Corona et de GoogleEarth), ce qui a permis la réalisation de cartes d'occupations du sol. Ce sont ces outils et méthodes qui ont permis d'aboutir à un certain nombre de résultats.

### 4. Résultats

Le cadre théorique et spatial posé, de premiers résultats peuvent être évoqués.

4.1. Pôle « acteur » du triptyque. Pour répondre à une demande sociétale « urgente » en logements est privilégiée une politique active d'étalement urbain.

Depuis les années 1990, les quartiers périphériques ont constitué les principales destinations des demandeurs de terrain à usage d'habitat ou de location dans une moindre mesure. Malgré la persistance de leur aspect rural, de leur éloignement par rapport au centre-ville et la psychose de l'insécurité, de rares lotissements ont d'abord concerné des zones jugées *non aedificandi* dans le Plan Directeur d'Urbanisme (PDU) de 1983. Il s'agit de parcelles « non » assainies de Goumel et de la cité Biagui II (un sous quartier de Diéfaye) dans d'anciennes rizières au nord-est de la ville (Sy et Sané, 2015). Plus récemment, le coût abordable du foncier face à la cherté des rares terrains nus situés dans les anciens

quartiers explique l'attrait d'une périphérie sud où se mettent en place progressivement des équipements structurants. Par exemple, l'Université ouverte en 2006 se fait en défauteur de la campagne et des terres de la commune rurale de Niaguis. Dans ce contexte, alors qu'elles disposent de nourriture, d'un emploi et de revenus plus ou moins réguliers tout au long de l'année, les femmes, très présentes dans les exploitations familiales et organisées en associations, sont d'autant plus désarmées qu'elles ont peu d'influence politique. La municipalité mais aussi l'État peinent à réactualiser le PDU devenu caduc depuis 2000, d'autant que n'existe pas de Schéma Directeur d'Aménagement et d'Urbanisme (SDAU) pour cette région. Même si l'agriculture y occupe une place importante (en termes d'acteurs concernés et de soupape de sécurité et de stabilité sociale), que les impacts sont réels sur les conditions d'établissement (santé et assainissement), la végétation ou les écosystèmes des zones humides menacées, la réactualisation du PDU en cours répond avant tout aux enjeux du logement dans un cadre spatial élargi (8 822 ha environ contre les 4 372 ha du PDU actuel). Ainsi, l'État a prévu la création de deux zones aménagées dans la commune rurale de Niaguis, séparée de la ville par le marigot de Kandialang et traversée par le boulevard des 54 m menant à Bissau. Il apparaît aussi que dans la course à la transformation de l'espace rural agricole, à travers le déploiement de fonction résidentielle, l'État y associe peu les municipalités et les populations locales, alors que la gestion de domaine national relève de ces collectivités locales. D'ailleurs, ces dernières préfèrent se liquer avec les autorités coutumières et les populations résidant dans les zones cibles pour contrer les projets d'extension étatiques. Parallèlement la collectivité de Niaguis s'oppose aussi à la réactualisation du PDU de la commune de Ziguinchor, cette fois-ci, en sensibilisant les populations des zones d'extension sur les intensions supposées ou réelles de la commune de Ziguinchor. Un autre acteur de taille est le lotisseur de terrains (des vergers jadis) du domaine national. Ce sont généralement des coopératives ou des promoteurs privés. Les propriétaires traditionnels et les communes urbaines constituent souvent leurs alliés.

4.2. Pôle « espace ». La mutabilité du foncier accentue la vulnérabilité des exploitations familiales « traditionnelles » tout en assurant des opportunités de commercialisation.

La course vers le foncier s'accompagne généralement de morcellement, de ventes illégales et d'occupation de zones *non aedificandi* et d'espaces publics. Elle génère aussi des conflits liés aux usages de l'espace (usages agricoles et usages non agricoles) (Diongue, 2013). Ce dernier type d'usage (non agricole) est théoriquement le fait de l'État — grands projets d'urbanisme de l'État (Parcelles Assainies et ZAC) prévus dans la zone de Kantène —, mais concrètement le fait des promoteurs privés et spéculateurs fonciers.

L'extension du front urbain vers le sud est allée de paire avec la destruction des meilleures terres à vocation agricole (vallée de Kandialang) et de vergers. Les conséquences environnementales liées à l'occupation de sites pourtant impropres à l'habitat sont néfastes pour l'écosystème naturel de bas-fond, pour l'économie locale, mais aussi pour le cadre de vie, notamment la santé des populations (Sy et Sakho, 2013). Dans les zones nouvellement occupées, la mangrove et les mares saisonnières (Kandialang, Djibock, etc.) résistent difficilement, à l'inverse de la palmeraie, plante culturelle et cultuelle, qui disparaît progressivement, alors que c'est un arbre protecteur et producteur de vin. La destruction du fonctionnement des bas-fonds rizicoles et maraichers entraîne la réduction

des possibilités de production des écosystèmes, et aggrave la paupérisation de populations auxquelles la ville n'offre que très peu d'opportunités d'emploi. Parallèlement, les facteurs environnementaux interfèrent au regard du changement climatique dont les phénomènes pluviométriques et hydrologiques contribuent à la dégradation des rizières surtout (sécheresse, inondation, désertisation). Ainsi, certaines parcelles rizicoles des quartiers qui jouxtent le fleuve Casamance sont progressivement salinisées, suite à l'avancée du biseau salé.

Pour autant, en parcourant la ville, surtout les quartiers périphériques, on y repère des parcelles d'agriculture pluviale à celle de contre saison (maraîchage) dans et/ou aux abords des maisons, le long des versants de vallées, et des élevages de porcs et de petits ruminants dans les rues et dans les concessions. L'agriculture urbaine est pratiquée dans les moindres espaces interstitiels disponibles. Ces quartiers restent donc pourvoyeurs du centre-ville et des quartiers traditionnels en produits agricoles (fruits et légumes, surtout la patate en saison des pluies) et un espace de transition avec l'arrière pays. Ces quartiers, jadis « grenier » de Ziguinchor, deviennent de plus en plus des zones de cultures maraîchères assez lucratives, le riz étant voué à l'autoconsommation.

#### 4.3. Pôle « ressource ». De réseaux d'entraide à des réseaux de commercialisation de produits alimentaires plus élaborés

La ville de Ziguinchor offre une originalité liée aux différents flux de population qui viennent s'y installer de manière plus ou moins définitive depuis les années 1970. A ces désormais néo-citadins, la ville n'offrait de possibilité d'insertion que dans l'agriculture périurbaine (Hesseling, 1985). Cette dynamique prend forme dans le cadre de réseaux de solidarité, plus ou officieux.

Parallèlement, des unités de transformation voient le jour, comme l'unité de transformation de mangues « Kadjamor » à Kandialang en 2009 et l'unité de production de vinaigre de mangue à Kénya en 2010.

#### 4.4. Au centre du schéma à l'interface des pôles, l'urgence écologique. La situation actuelle de la ville de Ziguinchor en matière de sécurité alimentaire reste un mystère

Depuis Janvier 2016, l'État du Sénégal dispose de deux importants documents en matière de sécurité alimentaire. Il s'agit de la Stratégie nationale de sécurité alimentaire et des résiliences — qui est un cadre de référence de l'ensemble des interventions d'une sécurité alimentaire à l'échelle nationale —, et celui de l'Opérationnalisation du système d'alerte précoce — qui permet d'informer les autorités et les partenaires sur l'état de la sécurité alimentaire dans le pays —, mais la situation actuelle du pays et de la ville de Ziguinchor en matière de sécurité alimentaire reste un mystère, en l'absence d'études fiables.

De prime abord, le maraîchage contribue grandement à la satisfaction de la demande alimentaire et aux besoins nutritionnels de la population néo-urbaine. Il constitue aussi une source de revenus, un refuge pour des familles à revenus aléatoires ou faibles. En effet, une planche de 60 m<sup>2</sup> d'aubergine douce ou de gombo peut générer entre 60 000 F et 90 000 F CFA, 77% des exploitantes enquêtées ayant un revenu moyen mensuel inférieur à 100 000F CFA. Ces revenus permettent de réduire les autres dépenses courantes de la famille.

Selon nos enquêtes, dans 80 % des cas, la maraichère assure la couverture de ses besoins en légumes. D'ailleurs, la diversité des systèmes de cultures et de production constitue un atout dans la lutte pour la sécurité alimentaire. En effet, les produits distribués sur le marché urbain sont constitués de légumes feuilles à cycle court et de légumes feuilles à cycle long. Par contre, le riz cultivé est exclusivement destiné à l'autoconsommation. La production rizicole est fluctuante, mais tourne autour de 500 kg de riz paddy sur une parcelle de 300 à 350 m<sup>2</sup> en situation de pluviométrie normale (une tonne à l'hectare, voire 4 tonnes avec l'utilisation des nouvelles technologies !). La production rizicole comble 70 % des besoins alimentaires des exploitantes et ménages agricoles. Les autres comblent leur déficit avec du riz acheté à la boutique du quartier, donc importé.

### 5. Discussion et conclusion

Tout semble efficace et suffisant. Néanmoins, avec Cavin (2010), nous pensons qu'il faut développer des thématiques intégrant la ville à la campagne, dans une perspective de développement territorial durable, avec une ville participant pleinement à la stratégie de protection des milieux naturels. Il apparaît clairement que l'avenir des paysages périurbains sous influence urbaine constituera l'un des enjeux majeurs de la gouvernance des marges urbaines de Ziguinchor dans les très prochaines années pour la municipalité.

Dans les décennies à venir, la périphérie Sud pourrait devenir le second pôle de la ville, d'où l'urgence de dépoussiérer le projet de réactualisation du PDU. L'urgence est à une intégration fonctionnelle plus que physique, financièrement difficile à supporter de la part de l'État. Dans cette perspective, l'exemple du *new ruralism* américain est illustratif (Schmitz, 2008). Il s'agira en effet de maintenir ces villages (traditionnels) comme des pôles producteurs, respectueux de l'environnement et de leurs us et coutumes. Pour le pôle urbain, le cadre et le niveau de vie (assez élevés) autoriseront l'achat des prestations des pôles ruraux à des prix rémunérateurs. Cette perspective permettant le maintien d'une agriculture périurbaine dynamique, prospère et en mesure d'assurer l'autosuffisance alimentaire des deux pôles, est d'autant plus salutaire que ces paysans ont un fond culturel et cultuel (bois sacrés et rites) qui s'intègre mal dans un milieu urbain.

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## 58. Land Use Change and Conflicts in the Tordera Delta, a Peri-Urban Area on the Edge of Metropolitan Barcelona

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### 1. Introduction

The Tordera Delta is a small area of about 8 km<sup>2</sup> adjacent to the Mediterranean Sea. It is located at the mouth of the river of the same name, which is 62 km long and which drains an area of 895 km<sup>2</sup>. It is the smallest of the three deltas of the central Catalan coast that have been “swallowed up” by the construction maelstrom of Barcelona (Figure 1): that of the Besòs, completely; the Llobregat, significantly (two thirds of the current area); and thirdly, the Tordera, which is the farthest away — 60 km separate the mouth of the Tordera River from the centre of Barcelona —, and which in recent decades has also been affected by progressive metropolitan pressure.

The Tordera Delta houses a great diversity of landscapes, which vary over time and space, both because of the dynamics of natural processes and because of successive strategies of resource exploitation throughout history, but especially over the last two centuries. The natural processes are strongly influenced by periodic river floods and marine storms. Over time, human activity has been favoured by the availability of water and the fertility of the soil, which have motivated its intensive agricultural use. Throughout recent decades, extension of the beaches has made tourist development possible, a phenomenon which has occurred in parallel with the development of numerous manufacturing industries and an increase in residential activity linked to Barcelona's commuter population growth. The result is a mosaic of landscapes and land uses in which river banks and periodically flooded beaches, very productive orchards, population centres, residential and industrial estates, camping areas and a dense road network coexist. The relationships between the different uses are complex and not free from conflicts. The objective of the present extended abstract is to present this landscape diversity in a synthesised and summarised manner, to show its complexity and to identify the most urgent current conflicts.

### 2. Theoretical Insights

Peri-urban agricultural landscapes have been the object of intense academic attention to an extent that is impossible to summarise here (Vázquez Espí et al., 2010). According to Paül (2010), three landscape dynamics affecting peri-urban agricultural areas can be identified:

- The first has nothing to do with their peri-urban character, but rather results from external factors exerting an influence on the agricultural landscapes; for example,

Figure 1. Location map. Source: own elaboration, base map by the ©Institut Cartogràfic de Catalunya.



agriculture devoted to overseas exportation or extensive cereal farming. There are many peri-urban agricultural landscapes where production responds to markets far away from any nearby city.

- The second is a response based on von Thünen's model which relates agricultural intensification to the proximity of an urban market.
- The third dynamic is urban encroachment broadly defined, which entails the transformation and even the disappearance of the pre-existing agricultural landscape.

The agricultural landscapes that respond to the second and third dynamics can be defined as strictly peri-urban. The second has been extensively analysed in works of agricultural and rural geography, and has given rise, in the European context, to an elaborate tradition of study of gardens, irrigated and close to a city, as the quintessence of intensive



Mediterranean agriculture (so-called *huertas* in Spanish). The works of Meeus, Wijermans and Vroom (1990) and Meeus (1995) helped to popularise this concept, which has been well elaborated in French and Spanish geographical literature throughout the 20<sup>th</sup> century, to the extent that it was included in the first report of the European Environmental Agency, known as the *Dobřís Assessment* (Stanners and Bourdeau, 1995).

The third dynamic was noted by Bryant and Johnston (1992), in their classic handbook of peri-urban agriculture, when they referred to the “landscapes of agricultural degeneration” resulting from urban extension. A classic case of this is the agricultural de-intensification that occurs, in a manner opposite to that of the previous dynamic when, due to urban proximity, fields are no longer cultivated due to an expectation of income from land sales for urban development and wastelands ensue (Paül, 2010; Paül and Haslam McKenzie, 2013). In recent years, there has been general agreement that the landscapes of peri-urban agriculture are mixed, indecisive and dynamic (Gallent and Andersson, 2007; Gant, Robinson and Fazal, 2011). These works identify land uses of these landscapes that are not usually found in other places. For example, scrapyards or tire dumps have been called “peri-urban land uses” in Spanish (Paül and Haslam McKenzie, 2013). Such areas also contain agricultural and livestock uses not strictly for urban consumption, but with local leisure; for example, *horsification* and hobby farming (Gallent and Andersson, 2007; Paül and Haslam McKenzie, 2013).

### 3. Methodological Considerations

The methodology used in this study consists of three main phases: data collection; ordering, treatment and analysis of data; and preparation and dissemination of results.

Taking into account the diversity of the necessary data, different techniques have been used to obtain them. Information on the natural environment (relief, lithology, aquifers, fluvial regimes and flows, marine and storm currents, vegetation and fauna), as well as on different resource use systems (drainage and channelling of surface water, groundwater collection, sanitation of the marshland areas, transformation of forests into pastures and farmland, construction of houses and establishment of industries, service areas and the communications network) vary over time and space.

The data were obtained through field work and bibliographic and documentary consultation. In the field work, the basic information for the present study was obtained with the help of maps and air photographs at a scale of 1: 5,000. Data about current and former land uses were compiled. Information was also obtained on the fluvial dynamics of the Tordera River and the evolution of the coast. The comparative analysis of historical air photographs has allowed us to study the evolution of land use and changes in the coastline in detail; the oldest photograph corresponds to the year 1946. Direct observation and conversations with local inhabitants have helped us to understand the current systems of land use.

Local books and magazines contained much information on the history of land occupation and former types of land use. Statistical data at the municipal level, much of it from the Municipal Archive of Blanes provided information on population and occupational change. The data were stored, sorted and analysed mainly by Access and Excel. Graphic representations were made with the support of Affinity Designer.

#### 4. Results

##### 4.1. Water

The current Tordera Delta was formed during the Holocene. For several millennia, gravel, sand and silt have been deposited on the river bed at its mouth in response to fluvial and sea level fluctuations. The result is a coastal plain with aquifers at different levels within it, which currently store the delta's most valued and most exploited resource, since fertile gardens are irrigated and thousands of residents and tourists and many industries are supplied with the underground water of the Tordera Delta.

The demand for water has increased significantly in recent decades, to the extent that, in drought periods, the river is unable to replenish the extractions, and strict controls need to be imposed to avoid an irreversible process of salinisation of the aquifers. To satisfy the high demand for water, desalination plants have recently been built, which has led to rising drinking water costs, high energy costs and the generation of saline waste that is difficult to manage (Baca, 2013).

##### 4.2. The River

The Tordera is a typical Mediterranean river, with a regime characterised by irregularity in relation to rainfall. The summer low water level is evident, although without human intervention it would rarely disappear completely. At present, the river bed is completely dry for the last five kilometres, except during the periods following intense rainfall.

The reason for this extreme and lasting low water level lies in the presence of the delta aquifer, which is very extensive, extending almost from the town of Tordera to the mouth of the river. The water extraction levels of the aquifer are such that all the surface water infiltrates to a depth of a few meters.

On the other hand, the surface circulation in the middle stretch of the Tordera is enhanced by spills continuously coming from the treatment plants. This water supply is of great importance to the landscape of the middle course area, since it permits the permanent presence of surface water, even in the summer months of the driest years. The most important consequences of this are the recharging of the aquifer and the growth of vegetation that demands soil moisture.

A permanent lagoon is formed near the mouth of the river. This is closed to the sea by a sand bar, which only disappears when strong floods generate a flow sufficient to counteract the thrust of the marine water. This coastal lagoon is the only notable aquatic environment in the Tordera Delta and it is a tourist and environmental attraction, especially due to its ornithological diversity.

Presumably, a few centuries ago there would have been more extensive wetlands. Today's fragments retain their traditional uses (rafts for irrigation or mills) or are modified by traditional human interventions (aggregate removal or the establishment of embankments or drainage networks) but are not necessarily the direct remains of earlier wetlands or natural lagoons.

##### 4.3. Overflows and Floods

Documentary research is still incomplete, but written material attests to the existence of historic overflows and floods with catastrophic consequences (Serra, 1998; Baca, 2013; Sagristà et al., 2017). The sanitation and drainage of the delta wetlands to expand

the cultivated area and the construction of alluvial embankments to prevent the spread of floodwaters has been going on for centuries. Each major flood brought about great changes in the landscape, severely disturbing colonised areas, transforming the structure of wetlands and lagoons and creating new wetlands.

The rectilinear channelling of watercourses and the establishment of embankments that prevented water from leaving its course have substantially improved water utilisation and have been very useful in minor floods, but they have proved insufficient in those of greater magnitude, and these have continued to cause great damage.

The embankments have been planted with reeds (*Arundo donax*), which, with their numerous and robust rhizomes, protect the artificial dams against the onslaught of the river water. The cane is an exotic species with great capacity to colonise environmentally favourable open spaces, so it is considered an invasive plant which must be eradicated and replaced by native plants from the local riparian communities. However, this substitution is not readily achievable, since it involves expanding the flood beds, which is only possible if the expense of agricultural, industrial and residential areas are abandoned. If the reeds were removed without expansion the flood beds, the embankments would be destroyed by the first flood, even if it were only of low intensity. This would require the construction of large cement levees along all river banks.

#### 4.4. Agriculture

Cereal growing and vineyards were the dominant agricultural land uses, until the late nineteenth century. Vegetable cultivation increased throughout the nineteenth century, and especially in the twentieth century (Serra, 2001; Serra and Pintó, 2005; Valdunciel, 2005; Paül, 2006). Agriculture in this area became so important that, at the turn of the century, an author wrote the following, in a fundamental document for the understanding of the origins of spatial planning in Catalonia:

[T]he agricultural landscape of our land has nothing to envy of the wild landscape. Remember, for example, the Tordera valley, in the part close to the mouth, [...] and we can understand how we are right to lay down the agricultural rivers as possible tourist reserves. (Rubió Tudurí, 1932: 54).

The agricultural area has diminished considerably, especially from the the mid-20<sup>th</sup> century to the present day (Figure 2). In the eastern part of the delta, which belongs to the municipality of Blanes, the reduction of orchards has been drastic as a result of urban sprawl, the growth of industries and services and, recently, the establishment of large camping areas. Conversely, in the western part, belonging to the municipality of Malgrat de Mar, vegetable growing for markets in the neighbouring towns has expanded, although a strip next to the beach has also been transformed into campsites. The orchards are a significant component of the landscape of the delta, although they only employ a small number of day labourers, most of them immigrants.

Irrigation water has traditionally been taken from the course of the Tordera and some of its tributaries through ditches, many of which are now in the process of abandonment. The irrigation water was extracted from the aquifer by waterwheels, which have now been superseded by pumps.

*Figure 2. Orthophotographs of 1946 and 2016. In 1946 the cultivation of vegetables predominates and in 2016 the dominant land-use is camping. Sources: © Centro Cartográfico y Fotográfico del Ejército del Aire, Ministerio de Defensa (Spanish Ministry of Defence) and © Institut Cartogràfic i Geològic de Catalunya (Catalan Cartographic and Geological Institute), both with obtained written permission.*



#### 4.5. The Coast: Beaches and Dunes

The coastal strip is the sector where the greatest transformations have occurred over the last hundred years. It has changed from a wide and continuous beach backed by dunes, to dunes revegetated with pine trees, which have subsequently been occupied with campsites. In the 21<sup>st</sup> century, beach sand is being depleted during storms (Serra, 1998).

It is necessary to provide an overview of these fluvial and coastal phenomena in relation to human activity. Throughout the 18<sup>th</sup> and 19<sup>th</sup> centuries, with improvement in the climate, many lands of the Tordera basin were taken up for agricultural purposes. The removal of the vegetative cover and the loosening of the soil, to facilitate cultivation, led to soil erosion and its transportation downstream to the river mouth. These sediments were then removed by waves and marine currents, so that increasingly wide beaches were formed, and the wind moved the sand grains to form a dune belt. This phenomenon of new and larger dunes has been observed in various parts of nearby estuaries, such as those of the Ter and Llobregat rivers.

The presence of new and expanding dunes of recent formation worried the farmers, since they invaded fields, roads and ditches. From the 19<sup>th</sup> century onwards, dune revegetation projects with pines were used to stabilise the dunes. The dunes were transformed into pine forests, which were then transformed into campsites (Figure 2).

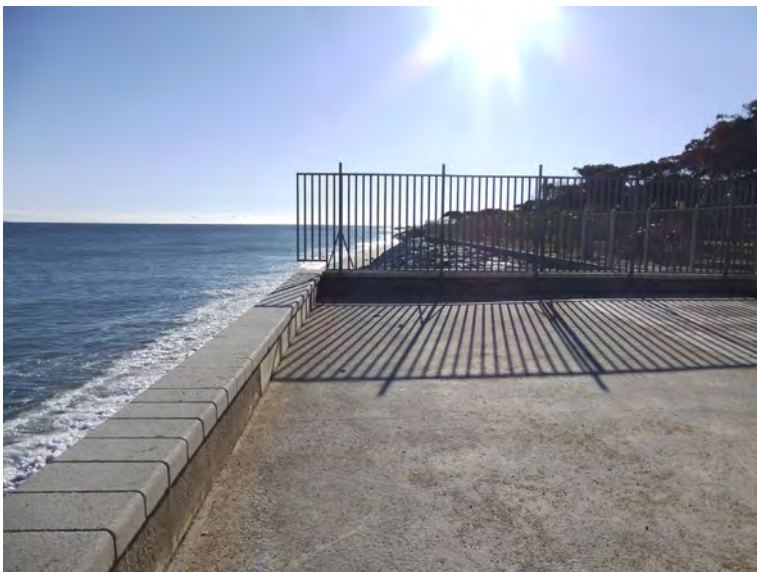
Throughout the 20<sup>th</sup> century, many fields of the Tordera basin were abandoned, so that, at the end of the century, there was hardly any agricultural activity. This has resulted in a drastic reduction of sediment contributions to the lower section of the river. During sea storms, the waves now move some of the beach sands into the sea. Until recently, during calm weather periods smaller waves and gentler marine currents replenished the beaches with recovered sediments and new riverine contributions. But currently, there are hardly any sediments to restore the beach landscape (Sagristà et al., 2017).

In this way, the beaches recede and the shoreline approaches buildings, roads and crops. There are no satisfactory solutions, either by beach replenishment, or the construction of a promenade, or even with a breakwater composed of large blocks of stone. Conflicts arise when the erosion of the coastline reaches the boundary fence of a campsite, the wall of an apartment block or when the sea destroys the whole of a seafront walkway. What was a creator of the beach in the nineteenth century is now a destroyer. The process has been reversed; the system that previously contributed to and expanded the beach now removes it and takes the sand out to sea (Figure 3).

#### 5. *Discussion and Conclusion*

Of the three landscape dynamics that affect the peri-urban spaces considered by Paül (2010), the latter two coexist in the Tordera Delta. On one hand, the agricultural activity of orcharding has intensified at the expense of cereals and vineyards. On the other hand, the installation of high technology greenhouses allows for the making of higher profits. These changes have been intensified by the presence of a large nearby market that values local production. Agricultural activity will continue in the short and medium term thanks to its profitability, and also because it constitutes an element of identity. Agriculture creates a landscape which is highly valued as green infrastructure by locals and tourists alike.

*Figure 3. Photographs of the same place on the S'Abanell beach in 2016 and 2017. In 2006, the beach had already been considerably reduced in area due to the decrease in fluvial inputs and marine storms. In 2017 the beach has completely disappeared and it was necessary to build a breakwater with large blocks of stone to protect a campsite and prevent the displacement of people. Source: Pictures by the author (8/2016 and 1/2017).*



But the agricultural landscape has a very active competitor in the form of tourist activities, which are also booming in the delta due to the climate, beaches and the presence of suitable infrastructure. The current land use competition derives primarily from the growing expansion of camping areas, which are favoured by their low cost of installation and maintenance in comparison to hotel activity. The current economic crisis also favours the expansion of campsites. When a camping site occupies a considerable area, it enters into clear competition with the orchards. To this we must add the growing need for space to accommodate the expansion of the towns of Blanes and Malgrat de Mar, and the installation of new road infrastructure and new services in general. In addition, we must consider the growth of new industrial and logistic facilities.

The result is a mosaic landscape in constant change for both human and environmental reasons. These changes are often unacceptable to the population and to those who control the land from the economic point of view. Finding a balance of land uses which are sustainable and acceptable to most of the social stakeholders is not easy, but it is essential if the natural resources of water, soil and landscape are to be preserved.

If the recent changes and the current uses of the Tordera Delta are compared with those of the Llobregat Delta (Figure 1), the differences are considerable, mainly because of their spatial dimensions and the distances from the city of Barcelona (Paül, 2010; Paül and Haslam McKenzie, 2013; Sans and Panareda, 2016). The Llobregat Delta covers an area of about 90 km<sup>2</sup> and is located next to the city of Barcelona; the impact of the conurbation on the delta is evident in a variety of ways. It houses important infrastructure such as the airport. The agricultural area is residual. Conversely, in the Tordera Delta, about 8 km<sup>2</sup> and located about 60 km northwest of Barcelona, the agricultural area still has intrinsic economic and landscape value. In both deltas the fluvial and maritime natural conditions exert similar influences, albeit with a greater fossilisation of the river course and the coastline in the Llobregat because of the installation of breakwaters and concrete walls for the protection and consolidation of the built space. The process of fossilisation in Tordera Delta is much less, despite the increase in urbanised space during recent decades.

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## 59. Urban Sprawl and Peri-Urban Risk: The Wildfire Frontier

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### *1. Introduction*

The interface between urban and rural (commonly termed the peri-urban fringe) is the location for an ongoing transition between the city and the country. In this transition recognisably urban land uses (housing estates, retail, space-using industry, transport arteries) are intermingled with rural land uses (agriculture, small clusters of housing, green spaces, craft industry). The transition takes the form of a competition between the forces of urban and rural, which the former frequently win to generate urban sprawl, loss of farmland and a tide of suburbanisation (with associated commuting) creeping across the landscape. One consequence of this process is the movement of people into areas in which they live closely juxtaposed to natural and semi-natural environments. In some cases, this creates a threat to the residents as their environment can present a hazard, through floods, fires, landslides or other calamitous events. Responses to risk can include modifications to biodiversity and green space to mitigate risk, thereby altering the balance between different types of environment in the peri-urban fringe (Bardsley et al., 2015).

This paper focusses on one particular risk threatening residents of peri-urban fringes across the world's Mediterranean biome, namely the risk of wildfires, termed bushfires in Australia. Communities across the Mediterranean biome (in south-east Australia, California, the Mediterranean basin and Chile) can experience destructive wildfires causing property damage and, in some cases, loss of life, but especially in peri-urban fringes. In such locales housing is often located close to areas of forest in both natural and semi-natural environments. In recent years impacts have been especially severe in Portugal, the south of France, Victoria (Australia) and California (Lampin-Maillet et al., 2010; Galliana-Martín, Herrero and Solana, 2011; Brenkert-Smith et al., 2013; Nawrotzki et al., 2014; Toman et al., 2014). For example, over the last thirty years, 353 people have died due to wildfires in southern Australia (Teague, McLeod and Pascoe, 2010) and all

southern Australian states have experienced serious fires this century, most destructively in Victoria in 2009 and 2003. Yet, while the peri-urban fringes of many towns and cities across the Mediterranean biome are extremely vulnerable to wildfires, they are simultaneously highly attractive places to live and work. Hence, the fringes can represent a growing and profound “risk environment” in which wildfires constitute a “manufactured risk” in that they are related to a high level of human agency both in the production and mitigation of the risk.

This paper examines how householders living in peri-urban fringes respond to the risk of wildfire. It examines how attitudes and beliefs affect their actions and responses to risk, and the role of residents’ decisions in shaping the evolving landscape of the peri-urban fringe. The paper is based on research in two peri-urban fringe areas of South Australia (Figure 1), the hottest and driest state in Australia. The principal area is the Adelaide Hills and Mount Lofty Ranges, located immediately east of Adelaide, the state capital, rising to a height of 936 m (just 15 km east of Adelaide city centre), covering an area of 1640 km<sup>2</sup> and running north-south for 300 km. The area has around 60,000 inhabitants, many living in close juxtaposition to fire-prone eucalyptus woodland. This natural and semi-natural environment is changing in association with a warming and drying climate, with more extreme weather events as part of global climate change (Bardsley and Rogers, 2011; Hughes and Steffen, 2013), so that it is becoming more flammable and combustible. The second area is the peri-urban fringe around the small fishing port of Port Lincoln (population 15,000), on the Eyre Peninsula in the west of the state. This has had some major fire activity in the last twenty years, notably a fire in 2005 that burnt 780 km<sup>2</sup>, killing nine people, injuring 115 people and causing approximately A\$100 million in property damage (Ferguson, 2016). This contrasts with fire activity in the Adelaide Hills where the last fire to produce human fatalities was in 1983: 14 human deaths, and 2080 km<sup>2</sup> burnt across the state (Bardsley, Fraser and Heathcote, 1983).

## *2. Theoretical Insights*

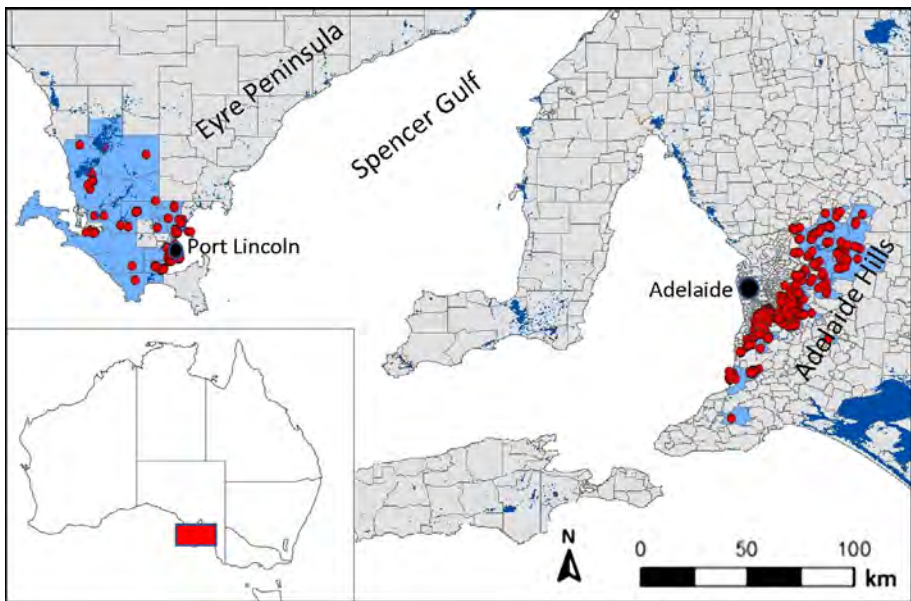
There are several questions that need to be considered regarding how sustainable responses can evolve to reflect the growing risks of wildfire. There are various potential management responses, including strong prescribed burning regimes or altering re-vegetation to reduce fuel loads; changing suburban building and gardening practices; changing fire hazard planning, improving fire-fighting; increasing awareness of residents of the need to alter behaviours; and placing constraints on urban development or even instigating planned retreat from vulnerable areas (Gill, Stephens and Cary, 2013). Yet the scale and scope of these activities, if they involve alterations to vegetation management through prescribed burning or clearance, may compromise the effectiveness of biodiversity conservation (Penman et al., 2011), or alter society’s perceived value of green space in the fringe for recreation, health and amenity (Russell et al., 2013).

The research for this paper draws upon Ulrich Beck’s notion of the ‘risk society’, in which the changing nature of society’s relation to production and distribution is related to environmental impacts as a totalising, globalising economy based on scientific and technical knowledge becomes more central to social organisation and social conflict (Beck, 1992). He argued that environmental risks have become the predominant product, not

just an unpleasant, manageable side-effect, of modern society. Risk of wildfires in the peri-urban fringe typifies this “product”. Although it is a hazard associated with the environment, it is in Giddens’ (1999) terms a “manufactured risk” produced by the high level of human agency involved in both producing and mitigating such risks.

As new relationships develop between people and their environment, it becomes more important to understand these relationships, analysing people’s views and behaviour, and so guiding differentiated, appropriate adaptation responses to risk. This can include a mixture of different priorities for different groups: risk mitigation for some residents and conservation outcomes for others (e.g. Foresta et al., 2016). The paper is essentially based on the contention that more knowledge is required on the relationships between people’s perceptions of biodiversity and climate change, their views of risks and of their local environment, so that policy can be better informed with risk (and potential mitigation) communicated effectively. This was investigated using a mixture of qualitative and quantitative approaches (see below).

Figure 1. The study areas (medium blue) and residential location of residents completing a questionnaire survey (red dots). Source: Moskwa et al. (2017: 3).



### 3. Methodological Considerations

The research was based primarily on a postal questionnaire survey distributed to residents in the two study areas. Additional data were generated by a series of workshops with key parties including personnel in state government departments responsible for the environment and planning, the Country Fire Service (CFS), which is a volunteer-based fire service for rural areas of South Australia, and some focus groups with residents. The

questionnaire consisted of 55 questions on wildfire risk, biodiversity conservation, place attachment and climate change, looking at attitudes, perceptions and behaviour. It was distributed to 3300 residences across the two peri-urban fringe areas, generating a 29.9% response rate, with a slightly higher rate of response obtained for the Adelaide Hills than around Port Lincoln. Some 505 additional participants also provided feedback via focus groups, workshops, follow-up surveys and interviews.

Narrative and content analysis were applied to the transcripts obtained from workshops and focus groups. Quantitative data were analysed using a variety of statistical hypothesis tests to establish relationships between key variables. However, the research also used grounded theory to help generate new theories (see Corbin and Strauss, 1990). In this, theory generation is based primarily on recognising important themes that emerge from the interviews, observations and focus groups. Hence, the research sought to generate theory from a systematic approach, rather than using specific pre-determined theories.

In the questionnaire two key questions were used to structure the analysis, namely: Do you believe that a changing climate is altering the risk of wildfire on your property? and, if yes, have you made any conscious changes in terms of your wildfire prevention plans as a result? The responses to the two questions were used to generate groups for further analysis, based on the distinct characteristics and behaviours of these respondents, using a form of statistical cluster analysis (Bardsley et al., 2018).

#### *4. Results*

“The forest’s beauty, opportunities for solace, reflection, health, work and happiness are contrasted with the fear of both the known risks and unknown futures” (Bardsley, 2015: 158). This quote typifies one of the principal findings of the research, namely that many residents are willing to live in fire-prone locations despite the knowledge that risk of wildfires is high. Risks may be offset by the attractions of the location, with residents referring to the ‘clean and green’ environment, the trees and general biodiversity (Moskwa et al., 2018). This finding is also supported by the response that almost two-thirds of residents support a range of management outcomes that aim to strike a balance between mitigating wildfire risk and biodiversity conservation.

In terms of actions taken to try to mitigate against damage to property from wildfires, the most common action was to clear leaves, twigs and long grass immediately adjacent to the house (89% of survey respondents). Nearly as many (85%) cleared gutters of leaves and 77% extended their clearance of undergrowth to at least 20m from their house. Other widely adopted measures include frequent watering of gardens during the designated wildfire season (75%) and developing a Bushfire Survival Plan (BSP) (68%), though not necessarily having a formalised Plan as recommended by the CFS. One-third had removed large trees from within 20m distance from their home.

Within these general findings, there are distinctions that can be made between different groups of residents, which may be very important for formulating a wide range of future policies — from zoning areas for exclusion of new settlements to planning how best to deal with a wildfire emergency.

We have formulated one specific classification of residents in the Adelaide Hills based on data collected in this research, namely the relationship between residents' knowledge of and attitudes towards climate change and risk of wildfires (see Bardsley et al., 2018). Three groups were apparent:

- The largest (38.4%) recognise an increased wildfire risk in response to climate change and have changed their BSPs in response. These respondents tend to live on rural blocks of land which possess native or wildlife gardens; they are typically aged in their 40s and 50s; are more likely to have experienced wildfire damage; possess strong ties to place; are more actively preparing for the emerging risk; and have a pro-environment outlook. This group also indicated they possessed the capacity to activate their BPPs and they showed greater place attachment than other respondents. They were more likely than other respondents to thin vegetation and to prune large trees, but less likely to remove large trees from within 40 m around their house. Indeed, they placed greater value overall on maintaining the wooded environment and biodiversity of the Hills despite the wildfire risk.
- 26.5% recognise an increased wildfire risk due to climate change, but were neither altering their household plans and actions, nor supportive of collective action to mitigate wildfire risk. These are largely aged between 18-44; with a graduate education; and live on residential-size blocks. Members of this group typify the gap between perceptions (of risk) and taking actions (to mitigate that risk) because whilst they recognise a growing risk, they are not planning to address it. It is possible that members of this group prefer to let others take actions that may reduce risks. Alternatively, they may value their 'pleasant green environment' above other considerations and do not wish to see it changed to reduce risk of wildfire.
- 35.1% do not recognise that climate change alters wildfire risk. This sceptical group was typified by older male residents who may not believe in human-induced climate change; work in non-professional employment; and have relatively low educational attainment. However, they are similarly supportive of risk mitigation actions as group (a). This implies that climate change is only one of several factors that can influence individuals to act or to support collective actions. This group appears more supportive of proscribed burning and vegetation clearance to mitigate risk, and they are exploiting the opportunity of a weakening of the state's Native Vegetation Act to clear trees in their gardens.

The differentiation of householders into three distinct groups illustrates that residents view the risk of wildfires in different ways, in part affected by the way in which they link the increased likelihood of a wildfire to human-induced climate change. The various responses to risk are producing major issues to be dealt with by planners, environmentalists and fire-fighters. In particular, if responses involve substantial removals of large trees and undergrowth this may have significant impacts on the ecosystems of the Hills. However, many of the residents are strongly attracted to the character of their local environment and are loath to damage it even in attempts to reduce the risk of fire. This strong sense of place appears to be a key factor in determining how residents respond to risk.

### *5. Discussion and Conclusion*

The rising threat of wildfires in peri-urban fringes across the Mediterranean biome has brought the issue of risk to residents in these areas into sharp focus. Horror stories about death and loss of property have become commonplace in recent years. Yet, many people still wish to live in such areas, attracted by the forest environment that is still in easy commuting range of a major urban centre.

In the Adelaide Hills and around Port Lincoln, South Australia, population numbers in these particular peri-urban fringe have grown in the past three decades, especially in the former as road links to the city have improved. Planning regulations have not prevented many small residential developments on vacant blocks that have received permission for subdivision. This is producing scattered housing throughout high-risk areas, which then places individual dwellings at risk, whilst also inhibiting biodiversity conservation. So, planning is not guiding sustainable patterns of settlement (Bond and Mercer, 2014). Moreover, as a fire mitigation strategy, restrictions on the clearance of native vegetation around dwellings have been lifted. This means that landowners on residential housing plots can remove most vegetation on their properties without regulatory assessment, and substantial areas of biodiversity could be further degraded in this way. Indeed, it can be argued that modern planning processes have not responded well to the complexity of situations in the Adelaide Hills. Problems are becoming increasingly apparent, especially in relation to the location and design of new peri-urban fringe developments.

In these circumstances it becomes ever more important to understand the attitudes and behaviours of the residents. What actions will they take in the face of the wildfire risk? Are they willing to tolerate a certain amount of risk to maintain biodiversity? These and other key questions will be elaborated in the full version of the paper, building on the results outlined above. These have shown that residents are taking various measures to make their homes bushfire proof, though mainly these are small-scale and do not involve major clearances of trees. Yet, there is one group distinguished in our analysis, representing about one-third of residents, whose future actions may reflect greater risk aversion. They seem more willing to undertake significant tree removal and other fire-proofing measures that could reduce biodiversity in direct contradiction to expressed views of the majority that the Hills' character must be preserved as it is this that is one of most attractive aspects of living in the area. The need to consider presenting the three groups with different messages as part of an ongoing wildfire prevention strategy will also be addressed in the full paper.

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## 60. Multifunctional Agricultural Transformations and the Urban Market: Contrasting Examples in Shaanxi Province (China)

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### 1. Introduction

With the rapid development of industrialisation and urbanisation in China since the wholesale economic reforms introduced in 1978, traditional agriculture has struggled to meet the rapidly escalating demand for food and fibre and to maintain viable rural communities in the face of massive rural-urban migration. With the increased influence of the fast expanding domestic market and under the influence of national policy guidelines, traditional farming activities have gradually been transformed into more intensive and market-oriented modern agriculture. This transformation has had major impacts on the structure and function of the agro-ecosystem, resulting in a series of changes to the ecosystem services (ESS) generated. These services refer to the benefits people derive from natural and managed ecosystems, whereby the ecosystem directly or indirectly provides production, necessities and services, including clean air, water, food and fuel. Four categories of ESS are usually recognised: provisioning (e.g. food production), supporting (e.g. nutrient cycles), regulating (e.g. controlling disease) and cultural (e.g. recreation) (Costanza et al., 2014), all of which can be affected by changes in agricultural production.

In recent years, changes to ESS have attracted much attention in human geography, ecological economics and related disciplines (Baral et al., 2014; Long et al., 2014). In China, the scale of change has presented many opportunities to examine both positive and negative changes to ESS (e.g. Li et al., 2014; Wang and Zhou, 2014), but much of the research on ESS has been focussed at the macro- and meso-scale, largely ignoring detailed impacts of agricultural transformation on ecosystem services at the micro-scale. This paper seeks to redress this balance in the context of the increasingly multifunctional agricultural development that is emerging on the Guanzhong Plain in the hinterland of Xi'an, a city with a population of nearly nine million; the capital of Shaanxi province in west-central China. It examines in detail changes occurring in three study villages near Xi'an (Duling, He and Majia) between 1985 and 2016 (Figure 1) and the contrasting responses made by these farming communities to the challenges that have presented themselves over this period.

The three villages were purposively selected because they illustrate specific types of change occurring within Xi'an's urban hinterland. The presence of a massive and rapidly growing market close to a productive agricultural area has been felt by many of the small farming communities. This has provided opportunities for moves away from the

traditional production of grain, using methods little changed over a long period of time, to fruit and vegetable growing for sales direct to Xi'an. The three villages illustrate the horizontal integration that has accompanied moves to adopt new crops and systems of production, often reflecting individual initiatives by farmers. In a Thünian response, the villages closest to Xi'an have generally been most affected by modernisation, innovation and wholesale changes to the production system. Those further away and with poorer transport connections have tended to be less affected, often retaining more reliance on grain as the major source of income (Zhou, 2015). This is illustrated by the three study villages. Majia, at 68 km from Xi'an, compared with Duling (17 km) and He (37 km), remains largely dependent on wheat, though production has been modernised through adoption of mechanisation, with government encouraging increased output via subsidies (60 yuan per mu at the time of the authors' survey, or US\$2.25 per ha) as part of food security planning. In addition, rural tourism has become a rapidly growing phenomenon across the area, with farmers in some villages making additional income from pick-your-own schemes and farmhouse-based restaurants and cafes as part of the Farmhouse Joy (*nongjiale*) Movement (Yang, 2012; Wu, 2016). This has occurred primarily in the case of Duling but is about to expand into He. In addition, a government-funded 'tourist village' has been opened near Duling, aiming to give a rural experience to day visitors from Xi'an.

Figure 1. The study area in the hinterland of Xi'an (Shaanxi Province, China). Source: [www.gscloud.cn](http://www.gscloud.cn).



## 2. Theoretical Insights

A key purpose of the research was to address a new way of thinking that focussed on micro-scale studies of agriculture and ecosystem services. This was a deliberate choice, set as a direct contrast to some of the large-scale investigations using the ESS approach. The concept of ESS was popularised in the Millennium Ecosystem Assessment in 2005 (MEA, 2005) and investigated in numerous subsequent studies, embracing research by geographers, economists and other social scientists (Costanza et al., 2014). This has included work on the relationship between agriculture and ESS, acknowledging that "agricultural ecosystems rely on a suite of supporting ecosystem services to provide food, fiber

and fuel as well as a range of accompanying but non-marketed ecosystem services (ESS)” (Swinton et al., 2007: 245). Agriculture has various environmental impacts that affect a wide range of ESS, including water quality, pollination, nutrient cycling, soil retention, carbon sequestration, and biodiversity conservation. In turn, ESS affect agricultural productivity (Dale and Polasky, 2007), but it can be a challenge to measure the impact of alternative agricultural practices on ESS. This paper addresses some of these concerns by looking in close detail at local farming practices and how these have changed, with quantification of the changes to ESS over a 31-year period.

The other theoretical concern addressed in the research relates to the nature of multifunctionality in the context of China’s agricultural transformation (Long, Liu and Li, 2015). Measuring changes to ESS and mapping the evolution of land use provided two means of detailing certain effects of the transformation, but there remains the question of how to place the transformation in a wider perspective. The moves to respond to the growing local urban market can be viewed as part of a nationwide modernisation process, but is the process largely just a series of farm diversifications (incorporating adoption of new technologies and land management methods) or is there a more fundamental dynamic at work?

One possibility is that the three study villages illustrate different aspects of multifunctionality whereby farmers in two of the three villages have not only changed the focus of their production and engaged in new marketing methods (e.g. direct sales, use of the internet) but have also developed agri-tourism and thereby broadened the base of the rural economy. Yet this is not multi-functionality in a transition towards post-productivism as theorised in some quarters (Wilson, 2007), but rather a broadening of the rural economy through a process of farm diversification and modernisation that also has a mixture of environmental gains and losses. Central to the process have been new forms of engagement with the city as a market for produce and a source of off-farm employment and tourists. This is not the China of the much reported ‘hollowed villages’ (Liu et al., 2010), but a dynamic and economically growing countryside developing an ever closer interdependence with the nearby mega-city.

### *3. Methodology*

The methods employed are a mixture of the quantitative and the qualitative. To analyse the changing values of ESS between 1985 and 2016 surveys were undertaken of the three study villages, collecting numerical data from local farmers that could be used to calculate the value of the different services. This focussed primarily on the nature of the changes made to production systems, the adoption of new crops and moves to diversify the farm economy. For some farmers this has meant developing additional sources of income from off-farm employment and tourist-related enterprises.

An evaluation method was employed that followed standard lines in EES investigations as set out in Song, Robinson and Zhou (2017), which involved calculating changes relating to environmental health, atmospheric regulation, climate regulation, leisure and tourism, and the production function. The focus was on the nature of agricultural transformation with respect to changes in land use, the adoption of modern agricultural

technology and the farmers' behaviour (especially decisions to move from the traditional to the modern).

Information was obtained through a series of over 130 structured interviews conducted with farmers in the three study villages at different seasons in 2016 and 2017 to ensure that some seasonal variations could be observed. The authors' own personal observations also formed part of the data gathering. GIS methods were used to map changes in detail across the time period.

#### 4. Results

Five principal sets of results were generated, as follows:

- The values of ecosystem services in two of the study villages (He and Duling) greatly increased from 1985 to 2016. In contrast, the opposite occurred in Majia village. The value of the production functions in each village accounted for the largest proportion of the total ESS value. He and Duling villages showed an overall growth trend, but Majia decreased by 82.6%; environmental health and climate regulation increased; atmospheric regulation varied across the three villages, increasing in He village, but falling by different degrees in Duling and Majia, with Duling having the smallest value. The values for tourism and leisure have shown substantial growth: the largest increases in the value of the various ESS in the three villages.
- The change in land use directly led to an overall increase in the value of ESS, especially the production function. During the 31-year period, the agricultural landscape for He changed from grain production to vegetable growing (tomatoes, celery and cucumbers). Mainly because of land consolidation, the village's agricultural area also increased a little (+8.5 ha). This increase and the change in the crop production cycle resulted in a significant increase in the value of the production function. A similar change occurred in Duling but involving moves from grain to fruit (cherries and grapes). Through high prices obtained for cherries, grapes and wine, the production function value increased significantly. Meanwhile, the agricultural landscape of Majia remained dominated by grain production. Although some land has either been abandoned or converted into forest, due to the small area involved this has had little overall effect on the ESS. The incomes of the farmers in this village have fallen as inflation has contributed to a decline in the real value of grain prices.
- Modern agricultural technology has played an active role in the evolution of ESS, growing by a measured factor of between four- and six-fold in the study villages. Adopting modern farming practices and mechanisation has accompanied the adoption of new crops as well as advances in marketing, through use of new sales channels, directly increasing the production function and indirectly increasing the value of the tourism function. Increased mechanisation has directly promoted the functions of production, atmospheric regulation and climate regulation. Despite the falling real value of grain, Majia has experienced the greatest increase in the use of mechanised farm equipment, directed at the planting and harvesting of wheat. The application of biological pesticides (advertised as 'ecologically friendly') and

oil-based fertilisers has promoted local environmental health and other ecological functions.

- The influence of farmers' behaviours on ESS is complex. The focus on increasing output to maintain and improve incomes has increased the value of production functions. Output has been increased by use of biological pesticides, new crop varieties, drilling wells for application of irrigation, and improved management of farm wastes. These changes have indirectly enhanced atmospheric regulation and other ecological functions. Certain crop management techniques, such as using bags to protect grapes and establishing fences between plots, have increased the production function. Some aspects of management have contributed to reducing ecological functions whilst increasing the production function, e.g. burning fallen leaves. New features post-1985 include household members taking up off-farm non-agricultural employment, and making use of the greater ease of opportunity to commute to growing urban areas to work. The introduction of vegetables in He has increased the amount of farm labour used in the village, whereas there has been a continued reduction in labour used on the land in Majia where there has been a net loss of population through out-migration.
- The dynamic mechanisms of the agricultural transformation in the three villages have basically been the same, driven by the mutual influences of market logic and state intervention. Through the support and guidance of various policies and projects, government has actively promoted the move from traditional agriculture (using relatively simple technology) to intensive, modern market-oriented agriculture, which has had significant impacts on ecological and production functions. For example, government subsidises seed in He and 'ecologically-friendly' pesticides in He and Duling. Improved agricultural technology has been integral to the agricultural transformation, and has raised the incomes of farmers especially in He and Duling where fruit and vegetable crops allied to some farm-based tourism provide a contrast with Majia. The agricultural transformation and changes to ESS have complemented and interacted with each other. The newly adopted agricultural technology has promoted positive ESS, but has been part of labour shedding that contributes to rural outmigration. A limiting factor in adoption of further on-farm innovations may be the fact that the education levels of the farmers are generally low, which indirectly may reduce the ESS capacity of the villages.

##### *5. Discussion and Conclusion*

The extensive transformation of the Chinese countryside following the major economic reforms initiated from December 1978 have provided many opportunities to study the nature of the modernisation processes and their effects. One approach used widely in the last two decades has been to assess the changes to ESS, in analyses combining the economic and the environmental, especially where major government programs have deliberately sought to produce environmental gains (Wang et al., 2017). The micro-detail of these changes has often been overlooked, but it is addressed in this paper, which uses detailed field survey mapping and interviews with local farmers not only to

measure changes in ESS between 1985 and 2016, but also to consider whether modernisation is producing multifunctional agriculture and multifunctional rural development.

Three contrasting study villages in the peri-urban fringe of Xi'an have provided a good testing ground to study the nature of Chinese agricultural transformation, through an examination of changes occurring over a 31-year period. The results reveal an intricate pattern of change occurring, with some dramatic moves from traditional grain production to horticulture, accompanied by new marketing methods and a growing wave of rural tourism altering the basis of the local economy. Issues raised about how to study ESS at a micro-level and the multifunctional character of the transformation will be pursued in the full version of this paper.

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## 61. Lessons from the Past: One Century of Rural Geography in the Netherlands

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### *1. Introduction*

Recently the well-known Dutch architect Rem Koolhaas (2017) asked renewed attention for the countryside. In his opinion the preoccupation of the modern world with cities, although in line with the ongoing urbanisation, denies the rapid and radical changes in the countryside. The drastic changes in villages, farming, nature and rural infrastructure all over the world, show that the countryside is involved in modernisation on a global scale (Koolhaas, 2017).

In the Netherlands, a new wave of urbanisation and the ongoing regionalisation and globalisation in many domains will result in new transformations in the Dutch countryside. Moreover, rural areas and rural studies are also facing new challenges, like the consequences of global warming, intercontinental migration and care about food and water security and quality. Although the notion of sustainability has been accepted as a core concern for rural policies and rural studies, the consequences of the radical changes in the world's 'countrysides' illustrate that we are still a long way off from sustainable rural systems.

Knowledge about the history of a (sub)discipline like rural geography, if shown in the societal context, can help us evaluate the 'state of art' of a discipline and generate actual results (de Pater, 2001). Besides, it is a fruitful way to formulate lessons for the future of a discipline (Huigen, 1996; Strijker, 2006).

It is the intention of this paper to look back to the development of rural geography in the last century in the Netherlands, to present some results of the most recent developments in Dutch rural geography and to formulate some lessons from the past for the future.

### *2. The Origin of Dutch Rural Geography: Polders, Regional Planning and Villages*

"More than the natural sciences, geography was and is a field of scholarship that is bound to a country and a linguistic area" (de Pater, 2001: 153). This statement is probably even more valid for the sub-discipline of rural geography in the Netherlands. Also with respect to more recent rural studies, the national specificity of rurality in Europe is often stated (Hoggart, Buller and Black, 1995).

In general Dutch human geography has always been an applied science, based on engagement with national, regional and local challenges and a practical attitude to solving these problems (Musterd and de Pater, 2003). The emergence of the modern, interventionist liberal-democratic state in the period after the First World War till the beginning of the 1960s was an important background for the development of the applied social sciences and different forms of technical and social engineering in the Netherlands (Couperus, van de Grift and Lagendijk, 2015).



Because of the characteristics of its natural environment the Netherlands has a centuries-old tradition of land reclamation from coastal tidal waters and from inland lakes and marshes. This tradition has become an important symbol of the national identity (Knippenberg, 1997). The planning and design of new polders, physically and socially, became an important research theme for Dutch human geographers in the 1920s.

The dissertation of the Amsterdam human geographer Henri Nicolaas ter Veen (1883-1949) on the Haarlemmermeer polder as a colonisation area (ter Veen, 1925), is often seen as the starting point of Dutch rural geography (de Pater and van der Wusten, 1996). Until the 1920s Dutch geography rested on two pillars, the colonies and teacher certification. Ter Veen's study was the starting point of a third pillar: regional socio-economic policy and spatial planning (de Pater, 2001). After his study many rural geography studies were carried out within the framework of the largest national planning project in the Netherlands ever: the damming and partial reclamation of the Zuiderzee (Southern Sea, a sea inlet of the North Sea). This project resulted in 1,650 km<sup>2</sup> of new land. Within the Zuiderzee project the growing influence of the state, the development of academic social science approaches and the subsequent use of physical and social engineering came together and resulted in an important body of knowledge (Haartsen and Thissen, forthcoming).

Apart from rural geography studies derived from these “polder projects” or other types of “internal colonisation” (van de Grift, 2013), the development of rural regions and villages on the “old land” were two other important themes in early Dutch rural geography.

The focus on the backward position of many rural regions in the Netherlands before and after the Second World War resulted in many regional studies, as starting points of the triad “survey — analysis — plan”. In-depth human geographical research was seen as necessary for each regional plan. Especially geographers from the University of Utrecht concentrated on a regional economic approach, while the social geography or “sociography” at the University of Amsterdam concentrated on more local studies, a social-cultural approach and community development (Droogleever Fortuijn and Thissen, 2002).

Especially in relatively peripheral parts of the Netherlands, the economic shift towards post-industrialism and the growing mobility was seen as a threat for the “liveability” of small villages. This theme resulted in many studies of rural geographers, rural sociologists and cultural anthropologists about the development of villages within rural regions, case studies about specific rural problems like the consequences of declining local service levels, accessibility problems and the changing position of specific population groups in villages (older people, women, youngsters) and local studies about changing village life. Most of these studies (PhD theses, reports and articles) have been written in the Dutch language. Research questions changed in connection with general social developments. For instance, local service provision in rural areas was originally questioned as a problem of local availability (basic services), but developed towards questions about accessibility of service centres and later on as a problem of access and connectivity of less-mobile inhabitants.

One can conclude that many Dutch rural geography projects in the twentieth century were the result of socio-spatial problems resulting from general demographic and economic developments and fit very well in the international *Zeitgeist*, the general set

of ideas, beliefs, or feelings that is typical of a particular period in history. The strong growth of the Dutch population, an almost incredible growth of wealth and mobility and social-cultural modernisation changed the Dutch society rapidly and radically after the Second World War. Because of the agricultural restructuring, the strict physical planning and the Dutch housing system Dutch rural areas retained a relatively open landscape. More urban questions became dominant in the research agenda of human geographers. Even in relatively rural areas research questions shifted from agriculture towards nature and recreation (van Hulten, 1969).

### *3. Recent Developments in Dutch Rural Geography*

The publication of a book by the journalist and non-fiction writer Geert Mak (1996) about the Frisian village of Jorwerd (the edition in the English language was published in 2000) can be seen as an important source of inspiration for the most recent developments in Dutch rural geography. Mak sketches the retreat of agriculture within the context of a Frisian village society and the loss of an agricultural way of life. The strength of the book is that many Dutch people with a rural background recognised the feelings of local loss. Although Dutch rural areas are still visually dominated by agriculture, the agricultural sector does not play an important role anymore in Dutch rural areas as employer and has lost much of its local power (Verrips, 1978).

Several academic centres of rural geography or rural studies have developed in the Netherlands since the 1950s. Apart from the University of Wageningen, with attention for villages, agriculture and area-based activities, like outdoor recreation and physical planning (de Haan, 1993), in the 1980s Joeke Veldman developed at the University of Utrecht a rural geography project with several PhD's directed on settlement development, accessibility, scale enlargement, rural ageing and rural housing. With the appointment of Paulus Huigen at the University of Groningen, the initiative for this type of research gradually shifted from Utrecht to Groningen. Also the approach changed. The change from agriculture as dominant economic function to a diversity of more consumption-oriented functions has changed the focus of Dutch rural geography towards concepts like quality and identity and an actor-centred approach (Haartsen, Groote and Huigen, 2000).

Although international contacts have always been important for Dutch rural studies (Hofstee, 1957), the internationalisation of Dutch academic geography received a boost in the 1980s. With respect to rural geography, several "Dutch-British Symposia on Rural Geography" were organised, starting in 1982 in Norwich UK at the University of East Anglia (Clark, Groenendijk and Thissen, 1984). In addition, the participation of Dutch rural geographers in IGU commissions resulted in a growing number of international publications about Dutch rural geography projects (for instance, van Oort et al., 1991; Bowler, Bryant and Huigen, 1998). For an international audience Dutch rural sociologists have published in the journal *Sociologia Ruralis* since 1960, and rural geographers in the *Tijdschrift voor Economische en Sociale Geografie* since 1967.

An impressive contribution to recent Dutch rural studies has been made by a national research institute, The Netherlands Institute for Social Research (SCP), within the project "The Social State of the Countryside". Between 2006 and 2016 eight reports were published about the actual development of the local quality of life in Dutch villages. Some of

the results will be published in articles in English (for instance, Gieling, 2018; Gieling, Haartsen and Vermeij, forthcoming; Vermeij and Steenbekkers, forthcoming).

Although several academic chairs in human geography at Dutch universities in the twentieth century were titled “Human Geography of Urban and Rural Areas”, Tialda Haartsen was appointed in 2017 at the University of Groningen as the first Dutch professor in Rural Geography, while also more specific chairs at this university contribute to the rural geography projects of this research group (Huigen, 1996; Strijker, 2006; Bock, 2016). The consequences of population decline for rural areas, especially in the north of the Netherlands is the main topic of this research group. Growing territorial inequality, regionally and locally, is the central theme in this type of research.

#### 4. *Lessons*

Although the Netherlands is small, densely populated and strongly urbanised, rural areas, villages and rural culture are still common outside the cities of the Randstad Holland. From a 17 million Dutch population 5 million people are still living in a village, 2 million even in a small village that is seen as peripheral. And Dutch rural areas are facing problems of decline and loss (of population, local services, power and status) that are comparable with other European rural areas. So rurality is still a relevant concept in the Netherlands, although fluctuating in time conceptually and on the policy and research agenda (Huigen, 1996). However, important local and regional differences exist between regions/villages that face stagnation and regions/villages that develop a new kind of dynamics (Strijker, 2006). One of the lessons from the history of Dutch rural geography is that our knowledge about rural affairs always needs contextualisation, especially within the framework of the nation-state. This means that our results and ‘good practices’ needs ‘transplantation’ besides translation.

Another important lesson from one century of Dutch rural geography is that engagement with our object of study and a practical approach is necessary for a fruitful development of our discipline. Especially in an era of doubt about the reliability of information, the tenability of our democracies and the quality of social research, we need knowledge that is reliable, useful and able to develop new perspectives for rural residents. This is not an easy lesson, because policy makers and politicians are not always open to knowledge that is disagreeable and unpopular. And engagement, with boundary regions for instance, is sometimes frustrated by territorial stigmatisation in the popular discourse (Wacquant, 2007).

The history of Dutch rural geography also teaches us that change is the only constant. In the next few decades as well, change will be an important characteristic of Dutch rural areas. The globalising economy and a changing demographic situation (ageing, shrinkage, international migration) may have direct consequences for the further development of territorial inequality with important consequences for rural regions and small settlements (Bock, 2016). However, the Netherlands is a small, relatively rich country with a well-developed infrastructure, a strong civil society and many functional relations. Still, connectivity and the development of new forms of solidarity are necessary to do justice to especially vulnerable rural residents. At the moment it is difficult to understand what the consequences will be of new challenges like global warming, intercontinental migration

and concern about food and water security and quality. A growing number of rural residents in the Netherlands, especially those living in the estuaries of the Southwest, a region that suffered from a storm surge in 1953, are aware of the possible consequences of global warming. In a recent survey 68 per cent of the population of this region saw climate change as a threat for themselves or their families. Especially young respondents and respondents with a higher education show such awareness (van der Wouw et al., 2018). The development of solid and reliable knowledge can help to develop further awareness among the rural population of the global developments in the world's 'countrysides' discerned by the architect Rem Koolhaas (2017). Such awareness will be an important precondition for the development of sustainable rural systems.

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**EPILOGUE**

**ÉPILOGUE**

**EPÍLOGO**

**EPÍLEG**

*Terraced slopes in the Modi Khola valley (Ghandruk, Kaski District, Nepal, Asia). Source: Picture by Valerià Pauil (2/2003).*







**Roser Majoral's (1942-2005) Geographies: From the Pyrenees to the Himalayas – A Life Devoted to Internationalising Spanish Geography**

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*1. Introduction*

In Spanish Geography, it is unusual to reflect on the academic trajectory and the international scientific contribution of individual scholars. This is related to the quasi-absence of in-depth examinations of Geography as a discipline by Spanish geographers, who in recent decades have been devoted to carrying out local and regional case-studies, with modest links to global spatial, social, economic and environmental issues and theorisation (Lois, 2009, 2013). Only some professors have received biographical attention connecting their contributions with the history of geographical thought, for instance, and to name a few: Gonzalo de Reparaz (1860-1939) by Ferretti and García Álvarez (2017); Pau Vila (1881-1980) by Iglésies (1981) and Tort (2003, 2004); Otero Pedrayo (1888-1976) by García Álvarez (2002) and Lois and Trillo (2017); Manuel de Terán (1904-1984) by Martínez de Pisón and Ortega Cantero (2007); Salvador Llobet (1908-1991) by Roma (2000); Horacio Capel (1941-) by Lois (2013) and Benach and Carlos (2016); or, embracing several authors, Garcia Ramon, Nogué and Albet (1992). Interestingly, these scant geographers' biographical works have been popular especially in Catalonia, where the geographical thought sub-discipline has gathered momentum (Garcia Ramon, 2016). Certainly, there are dozens of volumes so-called "homages" to Spanish professors, usually published by the respective university presses when the scholar retires, and they commonly lack distance. Thus, in general terms, we report little critical examination of the international connections of Spanish geographers and their roles in terms of contributing to scientific communities (Taylor, 1976) and "scientific revolutions" as coined by Kuhn (1962) — noting that, sometimes, changes in scientific communities are not as revolutionary as allegedly claimed, but rather generational (Taylor, 1976).

In this context, the present contribution attempts to provide a record of Roser Majoral's (1942-2005) academic career focussing on her scientific contributions in the context of the evolution of Geography since the 1970s, not only in Spain, but worldwide. Moreover, it is argued that Roser Majoral was pivotal in the internationalisation of Spanish Geography, a role that she undertook through several strategies that are discussed below.

This is an essay written by the first of the text's authors, based on his own memories and making use of the Majoral's last curriculum vitae (CV) updated by herself in April 2005. It also attempts to analyse many of her academic works (books, book chapters, papers, etc.). This text also benefits from the interview carried out with Roser Majoral by Joan Tort and Pere Tobaruela in January 1999, that was first published in a journal (Tort and Tobaruela, 1999) and later as a book chapter by Tobaruela and Tort (2002: 54-63). In addition, her obituary by Lois (2006) inspired the basic thread of these notes.

## 2. *Early Years*

The mountains are [...] areas where human settlement is difficult. They are very fragile. They have been abandoned for centuries. They are clearly unstructured. When they have received attention from outsiders it is for the purposes of exploiting them and even for plundering their resources and heritage. The mountains need to be recognised by governments and by the population in general as a distinct region, with specific problems and where, increasingly, there are considerable imbalances because of, above all, the exploitation practised from outside them. (Majoral, 1990a: 154; own translation).

Roser Majoral was born in 1942 in La Seu d'Urgell, a tiny city located in the Central Catalan Pyrenees, near Andorra; its population was 4,149 inhabitants according to the 1940 Census. "La Seu" in Catalan means "The Cathedral" in English and it is this that underpins the *raison d'être* of this place. Since the Early Middle Ages, the Diocese of Urgell was founded there, and a new cathedral was established (the previous one was in a hill nearby), at the crossroads of converging valleys. This foundation rapidly attracted religious people, workers, traders and other residents; and eventually a new city flourished. The city — its height in front of the Cathedral is 690 m — is located in the centre of a tectonic trench, one of the few plains existing in the heart of the Pyrenees, surrounded by horsts of more than 2,000 m (the Cadí Range, to the South, reaches 2649 m, Figure 1; the mountains to the North almost 3,000 m).

This geographical setting influenced Roser Majoral for her entire life. Initially, she was attracted to studying Medieval History in Barcelona, being profoundly touched by the impressive Romanesque buildings of her childhood city. Hence, she enrolled in Geography and History studies at the University of Barcelona. However, she soon felt that Medieval History was not fulfilling. It was compulsory to undertake a unit in Geography, taught by Prof Joan Vilà (Chair of Geography at the University of Barcelona since 1965), and she considered him enthusiastic and engaging in the context of boring degree studies. For this reason, she decided to direct her career towards Geography, graduating in 1971 in Geography and History (Geography and History were not discrete disciplines until the 1990s). Evidence of her early inclination towards Geography was the fieldwork she carried out when still a student in Extremadura (south-western Spain), where she studied the effects of the so-called "Badajoz Plan" developed during Franco's dictatorship as an alleged rural reform (Castejón and Pons, 2012).

As a geographer, she decided to focus on researching crops and livestock, consistent with her childhood in a rural setting, surrounded by the fields of the fertile tectonic trench of La Seu, with abundant water provided by the Segre and Valira rivers, whose

sources are the snow melt from the peaks of the Pyrenees mountains. Her family origins were indeed near the city, from a farm where she spent part of her early years. She never abandoned her focus on agricultural and rural geography, especially those rural areas located in the mountains, like those she experienced when she lived in the Pyrenees, a region suffering marginalisation, depopulation and economic decline within Catalonia.

Figure 1. *La Seu d'Urgell*, located in a tiny plain in the middle of the Pyrenees; in the foreground, the Valira River; in the background, the Cadí Range, snowed. Source: Picture by Joan Tort (3/1998).



### 3. *Agricultural Geography and Agricultural Land Uses: From Her PhD Thesis beyond*

The reliability of agricultural data, both published and unpublished, depends in each case on the source used. The data is rarely adapted to the purposes for which we request them; sometimes they are not recent enough; in others, they refer to different surface units than we require; or their sampling does not work for our geographical purposes. But the alternative to a problem that is not only ours (many researchers complain of this in various countries, with much better statistical resources than ours), is to use them as they are or not undertake the research. That is why [...], always leaving a margin for error and criticism, [...] we decided in spite of the inconveniences, to carry out the work, hoping that, ultimately, if not entirely valid, our results are at least approximate, and reflect, in general terms, the reality we study. (Majoral, 1979a: 130-131; own translation).

After graduating, Roser Majoral was immediately recruited in October 1971 to lecture. She used to say that she quickly became a lecturer in Geography because of the unique circumstances of the early 1970s, in particular the creation of the Department of Geography at the University of Barcelona and the urgent need for lecturers. She maintained that it was a situation unlikely to be repeated in the sense that several graduates of the academic year 1970-71 began to teach immediately after finishing their studies.

During the 1970s she regularly taught the Agricultural Geography course, created under the academic program passed in the early 1970s (and in place until the early 1990s),

for the Degree in Geography and History — Major in Geography (Consell de Redacció de la *Revista de Geografia*, 1991: 16). According to Consell de Redacció... (1991: 16), she began to lecture this course in the academic year 1976-77. She always maintained that lecturers at university have to teach about what they research, something that is far from common practice in Spain.

She usually taught Agricultural Geography throughout the 1980s, until the partition of the Department of Geography into a Department of Human Geography, on the one hand, and a Department of Physical and Regional Geography, on the other. After this split experienced in the academic year 1986-87, she remained in the latter department — attaining the Chair of Regional Geography in 1989 —, while Rural Geography as a sub-discipline (including Agricultural Geography) was allocated to the former. The new academic plan with the Department split was officially passed in 1993; she continued to teach Agricultural Geography, although with a new name, “Geography of World Agriculture”, as it was stipulated the course had to have a *regional* name. Interestingly, it was just a change of name, because the topics taught in the 1980s under the traditional name were very similar in the early 2000s with the new name:

The unit consisted of an introductory module on the evolution of the field [of Agricultural Geography] and its importance and place within Geography [...]; it continued with a module on the interdependence of agriculture and physical environment; then, three modules were outlined [...] referring to social, [economic] and technical aspects [of agriculture]; the next module was about the incidence of these aspects in the agricultural landscape; the classification and regionalisation of agriculture were addressed in the following module, explaining the role of agriculture in the world through different types of agricultural [...] systems; finally, the governmental role in farming was examined, in different blocks of countries and analysing agricultural policies. (Consell de Redacció..., 1991: 41; own translation).

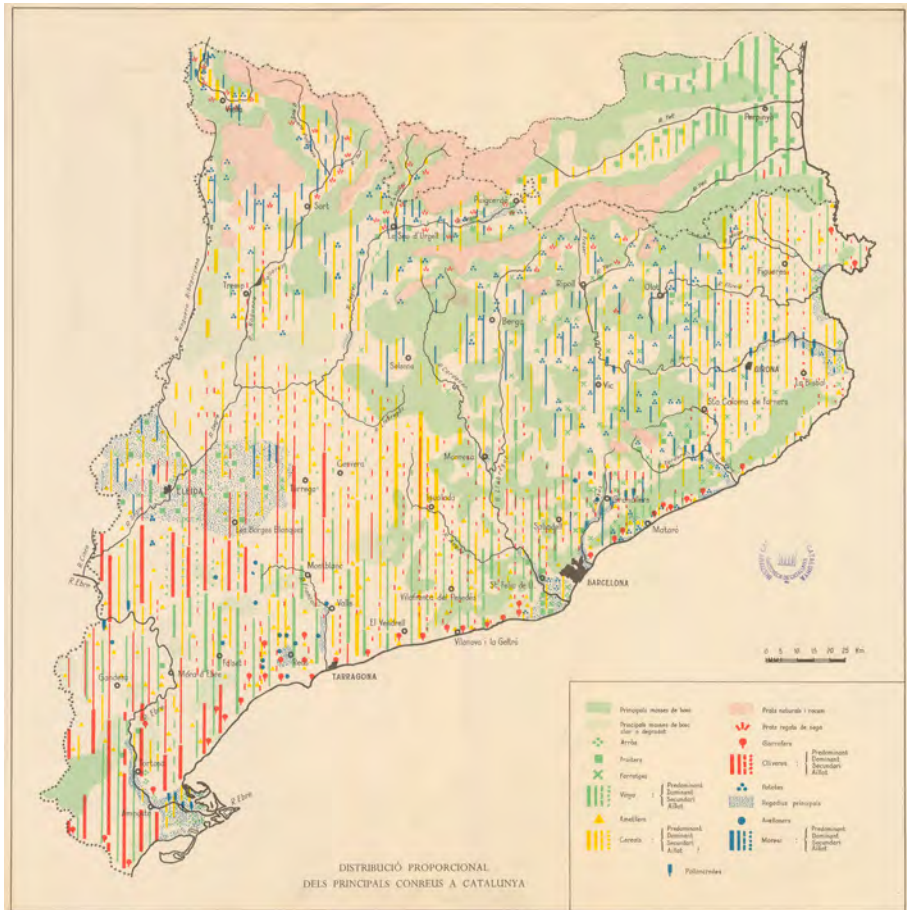
[Modules taught in the academic year 2000-2001] (0) Introduction: Definition, history, schools of thought, statistical and documentary sources; (1) Environmental factors affecting the geographical distribution of agriculture and livestock; (2) Social, technical and economic aspects of agriculture; (3) Agricultural landscapes; (4) Agricultural regions and taxonomic classifications of agriculture; and (5) Agricultural policies: orientation, reform and revolution. (Valerià Paül's class notes).

As she wrote in her PhD dissertation (Majoral, 1979a: 1), Roser Majoral decided to devote her PhD thesis to the agricultural land uses of Catalonia through quantitative geography analysis in 1972. Since the 1940s Prof Salvador Llobet had studied this in Catalonia, carrying out intensive fieldwork but without a systematic use of quantitative information — either it was not available or it was of very poor quality. He had produced a map in the 1950s (Figure 2) that was the only antecedent prior to that of Prof Majoral's works. Prof Majoral always lamented that Prof Llobet had left his research focus in Agricultural Geography to become a geomorphologist, as she considered him the real master in the field (Majoral, 1991a: 60).

Majoral's commitment to quantitative geography was different to that of the emerging worldwide “theoretical-quantitative revolution” in the 1970s which was keen to distance themselves from the “old guard”; “an appropriate degree of difficulty to make it unlikely that the ‘old guard’ will be able to master it, although leaving the door open to

young researchers with the time and motive to incorporate the new approach” (Taylor, 1976: 134). Prof Majoral always recognised Prof Llobet’s contribution and viewed her work as part of a continuum established by him. It was not an example, at all, of marginalisation of the old generation of professors, as has happened in other cases in Spain (Gómez Mendoza, 2001: 24).

*Figure 2. Llobet’s (1958: [400–401]) map on the distribution of the main crops in Catalonia, “a land use map where he localises [the crops], including quantifying them, based on dominance and preponderance of the different crops, a tough task due to the lack of statistical data” (Majoral, 1991a: 60; own translation). Source: Institut Cartogràfic i Geològic de Catalunya website (available at: <http://cartotecadigital.icc.cat/cdm/singleitem/collection/catalunya/id/1216/rec/4>; accessed on 27/2/2018).*



Majoral’s (1979a) PhD thesis is considered one of the pioneering contributions of quantitative geography in Spain and Catalonia (Garcia Ramon, 2016). In the 1980s, this approach was incorporated in textbooks of different sub-disciplines such as that of Garcia Ramon’s (1981) Rural Geography. Quantitative geography was also considered a

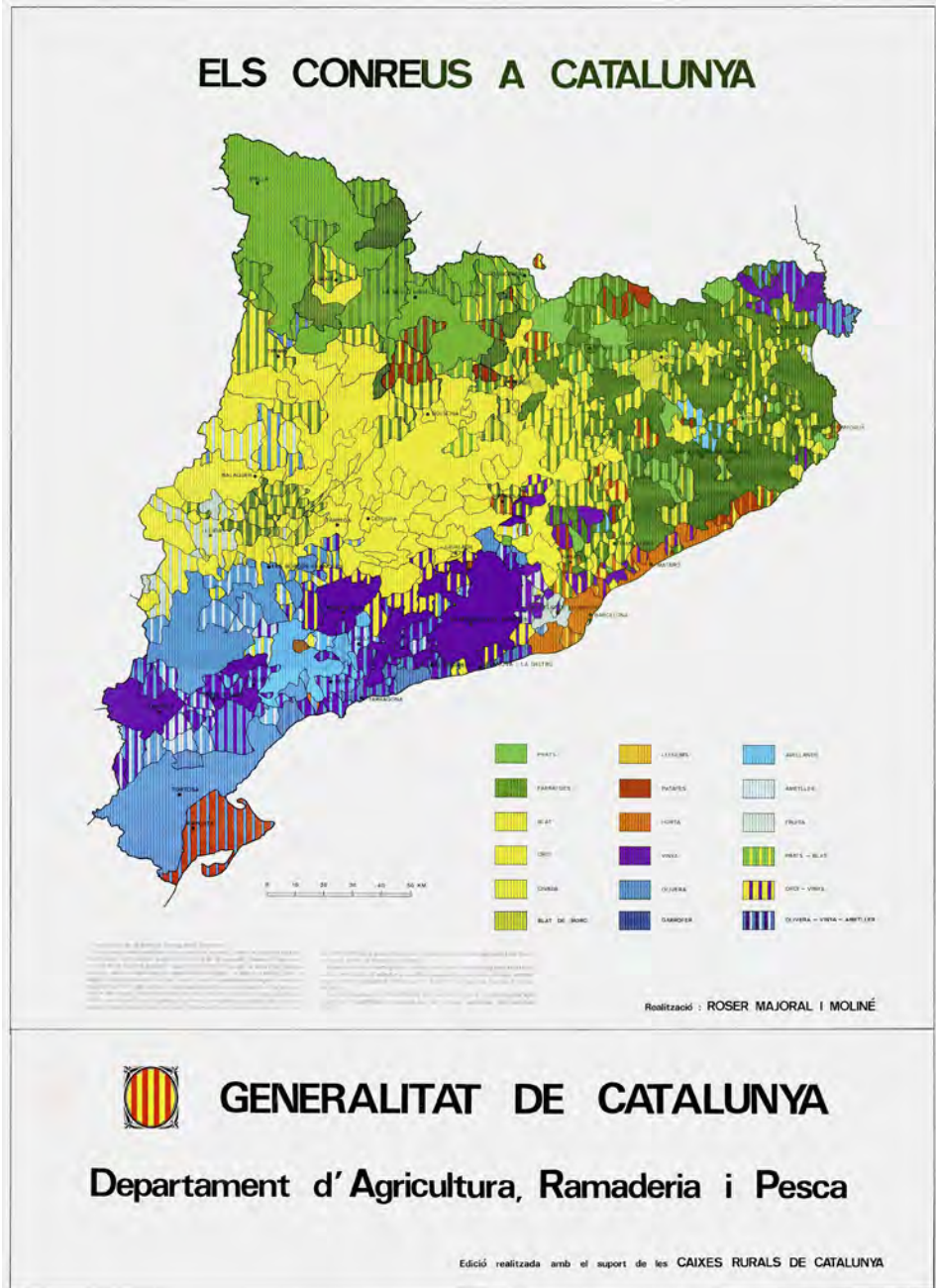
relevant chapter within the literature on history of geographical thought written by Spanish academics such as Capel (1981) and Garcia Ramon (1985). Majoral's (1979a) dissertation is consistent with the change from traditional Agricultural and Rural Geography — descriptive, local-based and qualitative — to the quantitative geography approach, increasingly concerned with global processes (Robinson, 2017). This change happened worldwide in the 1960s but it arrived, slowly, to Spanish Rural Geography from the 1970s (Gómez Mendoza, 2001; Paül, Tort and Sancho, 2011).

Another important contribution of Majoral's (1979a) PhD is the evident connection shown with international literature. Her theoretical section mentions hundreds of authors, mainly in English and French. For an international audience that may seem irrelevant, but in Spain, even today, the theorisation in geography making use of worldwide literature is limited (Lois, 2009).

By comparing Figures 2 and 3, it is obvious that the latter has a finer resolution and more expressive colours. Thus, it can be argued that Agricultural Geography in Catalonia experienced considerable progress thanks to her research, fully adopting quantitative approaches and moving on from previous practice. Prof Majoral was one of the first, if not the first, in Catalan Geography to develop her thesis on a computer that was located in the central building of the University of Barcelona. She typed all the data in 1976, according to the second volume of her thesis, where all the crops in 1973 (more than 50 are recorded) are shown for each one of the almost 1,000 local government areas of Catalonia. These data were not available in tables and she had to obtain each individual table, often with difficulty, from different Agricultural Chambers across Catalonia, copy it and then introduce the data into the computer. These data had never been used and she was the first to do so. Garcia Ramon (2016: 229) has argued that Majoral's thesis is a milestone in the Catalan and Spanish context because of her use of computers, but also for the multivariate analysis.

Her connections with the international community of geographers began soon after. Before her university studies, she had lived in England; she was therefore fluent in English. In parallel, she had studied French at school and she always respected Francophone Geography. After graduating and while she already lecturing in the 1970s, she undertook some research sabbaticals in British universities. At the end of that decade (Majoral, 1977) she wrote her first paper in English on a topic — depopulation in the Pyrenees — that was one of her research focus areas (see section n. 4), in the journal of the University of Keele, where she spent a research period in 1977, invited by Prof John Naylon (director of the Centre for Iberian Studies). She also liaised with the activities of the International Geographical Union (IGU) and other international organisations. In 1973 she attended to the bi-annual Permanent European Conference for the Study of the Rural Landscape (PECSRL, an organisation that still exists) in Perugia and, in 1975, in Warsaw (Bolòs and Majoral, 1975). The meeting in Warsaw was pivotal in her life as she came in direct contact with the IGU: she met Prof Jerzy Kostrowicki, a Polish Agricultural Geographer, who was searching for somebody from Spain who could help with Spanish data compilation and transfer this data to him. And that was her initial link with international geography. From 1976 to 1980, Prof Kostrowicki was the Deputy President of the IGU, where he also directed the Commission on Agricultural Typology — to which the Spanish data

Figure 3. Majoral's (1979a: 436) map on the distribution of the crops in Catalonia, published in a poster of the Government of Catalonia in the early 1980s. Source: Cartoteca de la Universitat Autònoma de Barcelona.



compiled by Majoral was transferred. In 1975, Carreras (1999: 107) mentioned that Roser Majoral helped to organise the colloquium of one of the IGU commissions in Barcelona, although this event is not reported in her CV.

Her thesis contains many maps, but the most widely known is the one reproduced in Figure 3, as it was distributed by the Department of Agriculture, Livestock and Fisheries of the restored Government of Catalonia, after Franco's dictatorship ended. This map appears as a developed photo in her thesis in p. 436, painted manually and later photographed. The method is based on a laborious calculation for every local government area of Catalonia of the main crops and, if there was no dominant crop, a combination of stripes. She wanted to develop a comparative series of maps, but in the end she could only develop this one, with the data obtained for 1973, given the eternal problems linked to poor statistical data availability and reliability in Spain. The cartographic stripes also reflect one of the main findings of her PhD thesis: the representation in maps of the combination of crops in particular areas.

Throughout the late 1970s and the 1980s she published extensively with this data processed from her PhD (e.g. Majoral, 1980a, 1984a). With regard to olive trees and vineyards in Catalonia, and making use of contour lines for mapping, Majoral (1979b) wrote a contribution in the Department of Geography's homage to Prof Salvador Llobet when he retired, quoting his early works in Agricultural Geography and, again, subtly lamenting the loss experienced by Rural Geography when Prof Llobet became a geomorphologist. In Majoral (1983), six specific choropleth maps of crops portrayed in black and white from her PhD studies were compiled, accompanied by an analysis of each crop, and, additionally, her (possibly) two first maps on livestock (cattle and pigs), that were represented with proportional symbols.

For her PhD she obtained other data sources that she did not use because they aggregated the different crops too much and/or were updated. One of the databases she collected was the rural cadastre of the 1950s (Figure 4), but she eventually considered it inappropriate. However, it was extensively used in Paül's (2006) PhD thesis and other publications under her tutelage (e.g. Paül, 2010). Roser Majoral represented the data of the rural cadastre of the 1950s for the province of Barcelona in a map with an accompanying text, that were later published by Canet and Segura (1988: 56-57) without quoting her authorship. Many times she commented she was unhappy about this inadequate and unacknowledged use of her research.

Particularly during the 1980s she conducted applied research on Agricultural Geography, in the context of the early years of democratic governments that demanded baseline data for policy-making, as there was a scarcity of available information for making informed decisions. This is, again, an exceptional circumstance, that has not occurred again. A report in point was carried out for the Metropolitan Area of Barcelona, examining the farms in the peri-urban areas. This report was based on extensive fieldwork, including surveys with hundreds of farmers, and which has never been published (Majoral, 1988). The results, farm by farm, were in her home when she died in 2005, but they have now probably been lost. She also developed two reports on rural planning and agriculture in Val d'Aran (Majoral and López Palomeque, 1982, 1983) (see section n. 5).





Figure 5. Majoral and Sánchez Aguilera's map on the distribution of the crops in Spain in 1999, accompanied by a text by Majoral (2004: 192-197). Source: Molinero, Majoral et al. (2004: 193). Adaptation and translation into English by Fernando Molinero and Valerià Paül.

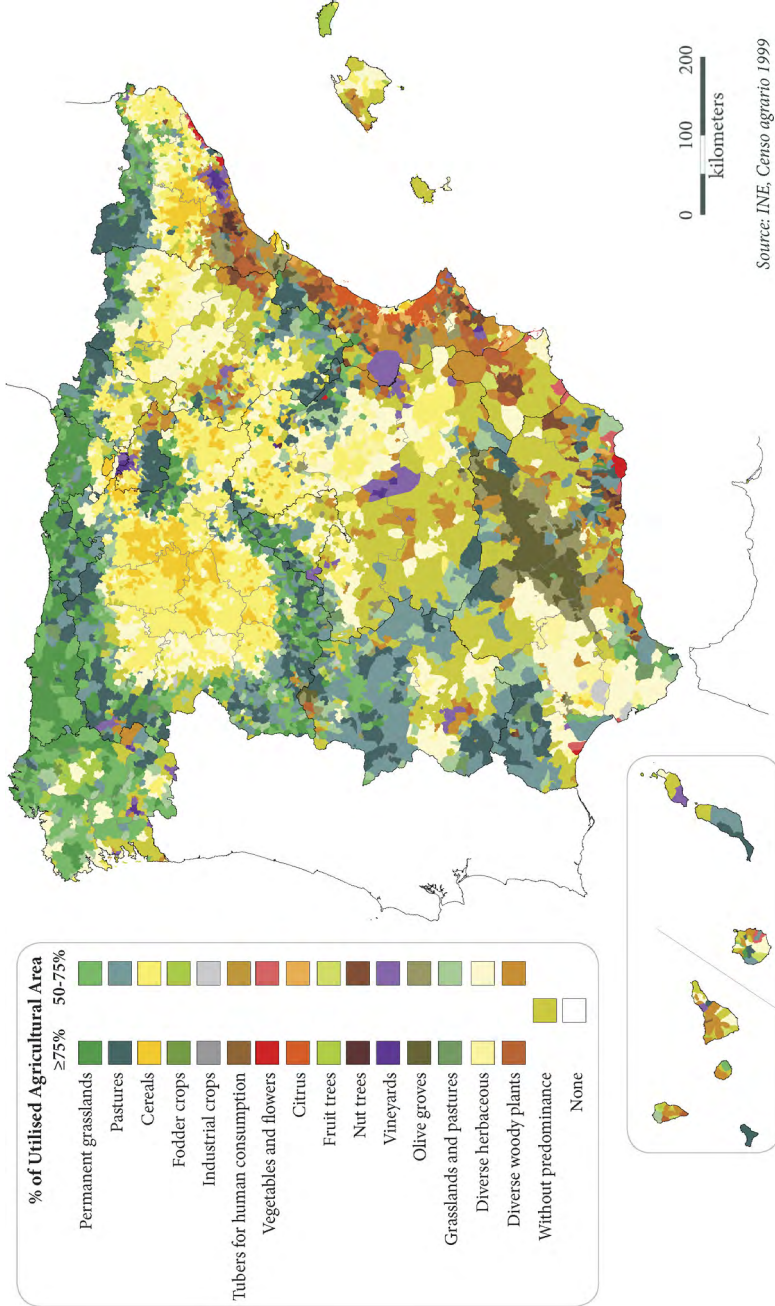
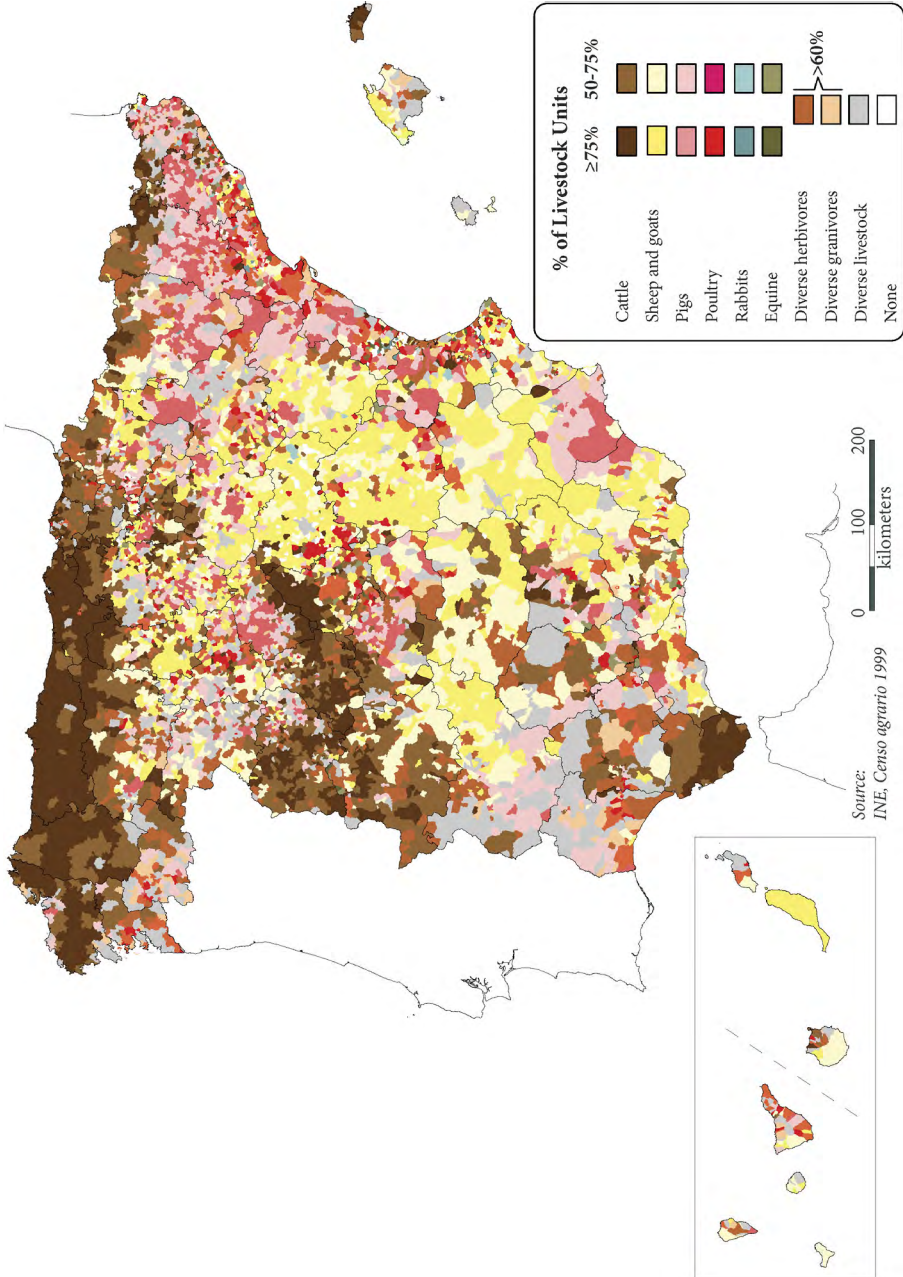


Figure 6. Majoral and Sánchez Aguilera's map on the livestock distribution in Spain in 1999, accompanied by a text by Cabo (2004: 248–257), who she contacted because of his expertise in this domain. Source: Molinero, Majoral et al. (2004: 251). Adaptation and translation into English by Fernando Molinero and Valerià Pauil.



underlying social, economic and technical features. That is one of the contemporary criticisms of traditional agricultural geography in Spain: its obsession with landscape appearance has detracted attention from the in-depth processes shaping agriculture, including, for instance the applied policies (Paül, Tort and Sancho, 2011).

In this sense from the 1980s, Prof Majoral developed a research stream devoted to the social aspects of agriculture that she used to call “socio-structural” as she was convinced that the social characters were more important in agriculture than the economic, the technical or the environmental dimensions. Hence, Majoral (1984b, 1984c) characterised Catalan farmers. In Majoral (1997a) a similar approach for the whole of Spain was developed. Increasingly, she underlined the contribution of women to the agricultural workforce. Possibly, her first paper on this topic was Majoral (1992a). This research line resulted in her participation in the *White Book* of the Spanish Ministry of Agriculture on the agricultural sector and the countryside in Spain, where Majoral and Sánchez Aguilera (2003) authored a specific chapter on women’s role in Spanish agriculture and rural areas. Interestingly, she maintained, consistently with her background on the topic, that the way of studying female farmers had to be quantitative. This opinion is controversial given that in feminist geography the epistemological discussion has favoured qualitative methods. “Frequently, it has been asserted in feminist circles that rational, quantitative and objective research is linked to masculinity, and that ‘soft’, qualitative and emotional is more associated with [feminism]” (Garcia Ramon, 2006: 343; own translation).

Her last published work was finished by some of her friends and colleagues, and appeared after she passed away: Majoral (2006) provides an evolution of the agricultural sector in the last decades — from the post-Civil War (1936-39) Spanish economic autarchy to the effects of the European Common Agricultural Policy after Spain joining the European Communities in 1986 — in the Catalan-speaking countries: Catalonia, Valencian Country, Balearic Islands and Northern Catalonia. This posthumous book chapter reflects consistency and continuity across her career of more than three decades on Agricultural Geography.

#### 4. *The Construction of a Niche within Rural Geography: Marginal Areas*

[T]he perception of marginalization in the Mediterranean region is [...] two fold. Firstly[,] there is this conviction that the South as a whole is marginal and the North is the ‘centre’; the high unemployment, low level of income and one-sided economic structure in many areas of Italy, Portugal and Spain do really back up the ‘conviction’ that southern Europe is lagging behind its northern neighbours. Secondly[,] [...] it is possible to see that there is a similar ‘north-south’ structure within the countries of the region [...]. The northern or coastal parts of the countries are more developed and have beg[un] a process of integration, while the southern or inland regions still [re]tain that old culture which makes it difficult to cope with the current[,] rapidly changing and competitive world. (Majoral, Andreoli and Cravidão, 1998: 160-161).

As already noted, since the late 1970s Roser Majoral was engaged with the IGU activities. It seems that the first IGU general congress she attended was in 1980, in Tokyo (Table 1). One week before this event, she participated in Nagano in the IGU Commission Colloquium of the Commission of Rural Geography, that was held in conjunction with the Commission of Agricultural Geography — respectively, their names were then IGU

Commissions on Rural Development, on the one hand, and on World Food Problems and Agricultural Productivity, on the other. Although the authors of this text are unsure, possibly she attended this meeting because the latter commission had been encouraged by Prof Kostrowicki: he participated in that meeting and she already knew him. She attended this conference with other two Spanish colleagues: Prof Ángel Cabo (20 years later she would ask him to write in a book she directed; Figure 6) and Dr Enrique Clemente.

Table 1. IGU Conferences attended by Roser Majoral (only those that are sure, or almost sure, are displayed).

Year	Congresses of the IGU/IGU Regional Conference	IGU Commission Conference/ Colloquium
1980	Tokyo (Japan)	Nagano (Japan) [AG/RG]
1983		Barcelona (Catalonia) [RDHHLZ]
1984	Paris (France)	
1985		Guelph (Canada) [RG] Sudbury (Canada) [RDHHLZ]
1986	Barcelona (Catalonia) [Mediterranean]	
1988	Sydney (Australia)	Auckland (New Zealand) [RG]
1989		Fribourg (Switzerland) [RDHHLZ]
1990	Beijing (China)	Ljubljana (Slovenia) [RDHHLZ]
1992	Washington (United States)	
1993		Taipei (Taiwan) [GM]
1994		Český Krumlov (Czech Republic) [GM]
1995		Mendoza (Argentina) [GM]
1996	Den Haag (the Netherlands)	Glasgow (Scotland) [GM]
1997		Harare (Zimbabwe) [GM]
1998		Coimbra (Portugal) [GM]
1999		Albuquerque (United States) [GM]
2000	Seoul (South Korea)	Taegu (South Korea) [GM]
2001		Stockholm (Sweden) [GM]
2003		Kathmandu (Nepal) [GM]

[AG: Agricultural Geography, in its various names (World Food Problems and Agricultural Productivity, Comparative Research in Food Systems of the World, etc.).

GM: Geographical Marginality, in its various names (Development Issues of Marginal Regions, Dynamics of Marginal and Critical Regions, Evolving Issues of Geographical Marginality, etc.).

RDHHLZ: Rural Development in Highlands and High-Latitude Zones (Sub-Commission/ Study Group).

RG: Rural Geography, in its various names (Rural Development, Changing Rural Systems, etc.).]

In those conferences in 1980 she did not present a paper. However, she wrote two notes in the *Revista de Geografia* journal of the University of Barcelona explaining how they had happened (Majoral, 1980b, 1981a). That was a method that, following Prof Joan Vilà's advice, she commonly used to disseminate amongst Spanish geographers the work of the IGU and its commissions: during the 1980s and the early 1990s she authored

a dozen of these notes, some of them long (more than 5-6 pages), mostly in Spanish but also sometimes in Catalan, on conferences she attended. That was something she thought was very important given the scant Spanish participation in international geographical events. In the 2000s she insisted that her PhD students should write about the international conferences to which she was sending them — accordingly, Valerià Paül wrote at the Association of Spanish Geographers' Commission on Rural Geography website in 2002 about the IGU Regional Conference held in Durban and about the IGU Commission on the Sustainability of Rural Systems Colloquium held between Johannesburg and Pietermaritzburg that year. We know that many Spanish geographers became familiar with the IGU activities thanks to her notes.

It is well known that the IGU works mainly through commissions. This is something that has been intensively discussed, as clearly outlined by Majoral (1980b) reporting the controversies regarding the internal structure of the IGU. It is not the objective of this text to reflect on this. The important fact here is that her background was Agricultural Geography but she was very soon involved in Rural Geography — they were then separate commissions. The reasons are unclear but the evolution of the internal structure of the IGU can explain this shift: it was decided in 1980 that there could be sub-commissions and she soon became very active in one of the sub-commissions within the Rural Development Commission, so-called Rural Development in Highlands and High-Latitude Zones (RDHHLZ) Sub-Commission. As explained in Majoral (1981a: 109), this sub-commission was created at the insistence of Prof Uuno Varjo (University of Oulu, Finland, 1921-1987) and it was decided in Nagano that the first meeting was going to be held in Lapland. Prof Majoral did not attend the Lapland meeting but, importantly, in 1983 she organised the next RDHHLZ Sub-Commission conference between Barcelona and the Pyrenees (Table 1). The proceedings of 22 papers were edited by Majoral and López Palomeque (1984) of which only three were Spanish. From this it can be inferred that a lot of work was necessary to involve Spanish colleagues in international discussions. Surprisingly, the paper by Majoral (1984c) was about agriculture — subtly implying that she still felt herself stronger in Agricultural Geography.

In Majoral and López Palomeque's (1984) preface it is evident that the RDHHLZ Sub-Commission wanted to become autonomous from the Rural Development Commission in the IGU Congress in Paris. This was achieved, as a Study Group, led by Prof Uuno Varjo (Majoral, 1984d). This study group became separate from the Commission on Rural Geography — then so-called Changing Rural Systems. The rationale for splitting is unknown, but strategically it is clear that is easier to influence at the IGU level through smaller structure than through a wide commission with hundreds of members. The IGU Commission on Rural Geography (and its successive names) was created in the mid-1970s because “only a few geographers and regional economists deal[t] with the problems of rural spaces. Attention [was] mainly directed towards the problems of urbanisation” (Varjo, 1984: 19). However, it soon became evident that the Rural Geography Commission comprised of a wide diversity of research (and personal?) interests, and for this reason it seemed necessary to differentiate those “studying rural development in Highlands and High-latitude Zones” (*op. cit.*) one decade later. According to Majoral (1984d: 181), the study groups were created in order that they became independent IGU

commissions in the following four years term. However, in 1988 the RDHHLZ Study Group had return to Sub-Commission status, again under the Commission on Rural Geography (so-called Changing Rural Systems until 1992). Prof Majoral's own words at the end of the period 1988–1992 are very expressive:

The main question that arose during our business session in Ljubljana [in 1990] was whether the Sub-commission should continue [...] in some way, after the Washington Congress [in 1992], or not. We all agreed we should go on. The Group has been working seriously and with continuity for a long time, first as a Sub-commission [1980–1984], later as a Study Group [1984–1988] always under the guidance of Prof. Varjo, and now [1988–1992] again as a Sub[-]mission. It would be a pity to stop and spread out when we all feel we can still go on doing things together. [...]

We decided then to explore the possibilities of becoming an independent Study Group again. We were a Study Group [for] only four years as it disappeared during the 26<sup>th</sup> IGU Congress in Sydney after Prof. Varjo's unfortunate death.

After talking with several members of the IGU Executive in Beijing I got the impression that it would be rather difficult to get again a Group on Highlands and High-latitudes. As all you know[,] there is a Commission in the IGU on Mountain Geocology and Resource Management and it [does not make] much sense to have a parallel group working on mountains. Of course we could try this way and see what happens but it seems to me we should find other ways to go on. One could try to get a Group only on High-latitude areas but it would exclude all the people working on Highlands in other latitudes, it means most of the people of the actual Group. A second choice could be to extend our area to study [...] other 'marginal', 'fringe' or 'depressed' areas. I think this proposal could have better opportunities than the others. (Majoral, 1991b: 88).

This piece of text is essential for understanding the context: the Study Group obviously wanted to become an IGU Commission in Sydney in 1988 but Varjo's death impeded this. They were keen to be part of the Rural Geography Commission but the words are clear: they felt the urgent need to be separate again. Importantly, Prof Majoral was openly communicating with the IGU Executive — with the ambition to be part of it — and she was negotiating the status, but other IGU commissions were apparently unhappy with a Study Group on “highlands/mountains” in its name. Eventually, “marginality” was one of the possibilities they were considering, which succeeded after intensive discussions in Washington between Roser Majoral, Chang-yi David Chang, Heikki Jussila, Walter Leimgruber and Larry Sommers, amongst others.

In Washington in 1992 the status of Study Group was again obtained for this group, with the name “Development Issues in Marginal Regions” (Majoral, 1992b; Leimgruber, 1998). Prof Majoral became its first chair, a role she held until 2000, when Prof Walter Leimgruber took over this position. In parallel, in Washington in 1992 it was created a Study Group on Rural Systems, that was the precedent of the Commission on the Sustainability of Rural Systems (CSRS) that was passed in 1996 in The Hague — at the same time that the Commission on Dynamics of Marginal and Critical Regions. Thus, in 1992 the split between Rural Geography and Geographical Marginality crystallised and, since then and until now (2018) has continued for more than two decades, despite the two groups' geographical foci remaining basically the same and their discussions and publications focussing on very similar areas, particularly low-density, peripheral, remote and/or

open spaces across the world. In short, it is not evident that we are witnessing a change of scientific paradigm in human geography in the sense conveyed by Kuhn (1962), but a kind of work in parallel, merely maintaining independent academic structures.

According to one of the initiators of the Geographical Marginality group/commission, together with Prof Majoral:

The concern with highlands and high-latitude regions emphasized a regional orientation of the Subcommission/Study Group, which was gradually felt to be too restrictive. A thematic frame was deemed desirable, and it was found in the topic of marginality and marginal regions. This reorientation links up well with the work done in previous years, and the creation of the Study Group by the 27<sup>th</sup> IGC in Washington DC [in 1992] offered the group the freedom of action sought for. (Leimgruber, 1998: 27).

Across the 1980s and the 1990s, Prof Majoral actively participated in the IGU conferences, as evident in Table 1, especially when she chaired the Commission on Marginality. The wish for “freedom of action” (Leimgruber, 1998) and the turmoil of the Rural Geography wide group were important factors for the establishment of an independent commission, which granted direct access to the IGU’s overall structure. Importantly, at the end of Majoral’s period as a Chair some of the works presented in the commission’s annual conferences were published in a collection of books by Ashgate — and some of the book chapters included in those monographs remain milestones when referring to rural and marginal areas (e.g. Leimgruber, 1998 and Majoral, Andreoli and Cravidão, 1998 are part of the first of these books). In total, Majoral’s CV contains five of these books from 1998 and, previously, other volumes were published, mainly as proceedings from universities’ presses (see section n. 5). She published in most of these books, (co-)authoring the prefaces, the introductory sections and/or her/their own chapters. She often linked the concepts *region* and *scale* to her work on geographical marginality, as is evident in the introductory quote of this section.

In addition, Prof Majoral was often insisting that Spanish Geographers should participate in the IGU activities. In some of her notes published during those decades describing the conferences, she subtly informed that the Spanish participation was ridiculous and that some of the Spanish colleagues were registered but did not attend. She also denounced the Spanish IGU National Committee suggesting they were inattentive.

Although the figures of registered [attendees] was superior [in Sydney in 1988], the Spanish presence was limited, on this occasion, to about ten people who participated in the meetings of four commissions and in the main session of the Congress. The Spanish Official Delegate in the Congress was Prof A. Higuera Arnal, who represented the *absent* Spanish Committee. (Majoral, 1990b: 89; own translation and our emphasis).

The Spanish presence and participation in the Congress in Washington was relevant. Around 40 registered geographers attended the meetings of the commissions and groups and also the main session in Washington. Sixteen papers were accepted in the programme; *not all of them were really presented*; however, that gave us the fourth position of the European countries in terms of participation. (Majoral, 1992b: 272; own translation and our emphasis).

It was obvious that Roser Majoral was very active with the IGU structures. However, the first of these last quotes makes explicit that it was necessary to work at the Spanish



level. In fact, the representation of the Spanish geographers in the IGU was through a National Committee established in the early 1920s and Prof Majoral sought, together with others colleagues, to renew this National Committee by legally involving the Association of Spanish Geographers, that was excluded from the National Committee. The process was very long and Roser Majoral (who was member of the Directive Board of the Association of Spanish Geographers in the periods 1981-1985 and 1993-1997) was energetic in this direction. According to her friend Prof Josefina Gómez Mendoza it happened as follows:

The Spanish Committee of the IGU does not reflect the true state of Spanish Geography. According to a longstanding agreement ([...]1922), it falls upon the Real Sociedad Geográfica (RSG) to represent Spain at the IGU. Since 1982, the [Association of Spanish Geographers (AGE)] has called for a share in this representation, which initially led to the setting up of an Extended Committee with a number of representatives from the AGE. An agreement seems imminent whereby this initial stage will be concluded with a presidency which will alternate on a four-year basis between the Presidents of the AGE and the RSG with a permanent shared secretary. (Gómez Mendoza, 1996: 106). [N.b. According to Gómez Mendoza, 2001: 26, this agreement was achieved in 1996. From 1998 to 2000, Roser Majoral was the first co-secretary, from the AGE side, of this Spanish Committee].

Replicating the structure of the IGU at the national level, the Association of Spanish Geographers created its own commissions (so-called working groups). The Rural Geography Working Group has been — and still is — the most numerous, with hundreds of members, and Roser Majoral was its President from 1989 to 1993. She always encouraged the participation of Spanish geographers at the IGU conferences through the meetings of the Spanish Rural Geography Working Group, where she regularly attended. In parallel, at the IGU scale she worked hard to enable Latin America participation in its activities, by means of:

- Fighting for including Spanish as an official language of the IGU. She was a proud Catalan-speaker, the language that she considered her personal choice, and she was fluent in English and French, but she wanted the IGU to be more global and she also felt that the official status of Spanish could encourage the participation of Spanish geographers, too. This has still not been achieved.
- She proposed that the Spanish Committee paid the fees for new members from Latin America in order to make the IGU wider and more democratic, increasing the participation of the nationals from those countries in the IGU conferences.

While she was at the IGU conferences, she openly debated with colleagues from across the world, even forcefully when she did not agree. In some of the general assemblies she manifestly expressed disagreement with some of the decisions being made. Possibly this combative work was in the mind of the President of the IGU, Adalberto Vallega, when he wrote in 2005, after Roser had passed away, that he was impressed by “her internationally-minded intense and effective activity, her successful initiatives, and the spirit with which she was able to design and undertake actions that contributed effectively to the scientific advancement of geography and to the Union’s improvement.”

This behaviour was personally observed by Prof Rubén C. Lois many times, who felt that she was trying to teach Spanish geographers how to perform at a global level. Her

behaviour and ambition contrasted with many Spanish colleagues attending the IGU conferences, but not participating in the decision-making of the organisation, or with the majority of the Spanish geographers — reluctant to engage with international academic discussions. She often said that the research projects funded by the Spanish and Catalan governments should be spent on participating in international discussions by attending world conferences, like she did with her research group at the University of Barcelona. She was always very critical of the Spanish participants, even at the last IGU conference she attended in Kathmandu in 2003 (Table 1), where she berated the three authors of this text because we missed some of the sessions as we wanted to see the magnificent valley of Kathmandu (Figure 7).

*Figure 7. From left to right, Dr Cathy Robinson, Dr Valerià Paül, Prof Roser Majoral and Ass/Prof Miguel Pazos in Patan Durbar Square (Lalitpur, Nepal). Picture by unknown photographer, Ass/Prof Miguel Pazos' personal archive (2/2003).*



##### *5. The Seduction for India and the Importance of Regional Geography*

One of the most defining characteristics of the Indian society is the population division into groups or *varna*, known in Western societies as castes. The castes system is a social hierarchical

organisation practised in India since the ancient civilisations. The caste decides the place of a person in life from their birth and it is inherited [...] and transferred to children, without any opportunity to change the caste adopted from birth. [...] It is difficult to understand the meaning of the castes system from outside the Hindu world. [...] Beyond the four *varna*, there are those without caste or Dalit, the lowest in the social stratification [...]. A Dalit is still someone with an unavoidable destiny and very difficult to escape from, condemned to some particular works and a specific lifestyle, although the constitution of the country prohibits any kind of discrimination [...]. (Majoral, 1994a: 172; own translation).

While studying at university, Roser Majoral used to work in a travel agency. This background is essential to understand her travel appetite. She very soon became seduced by India, where she travelled frequently; the first years as a backpacker, later acting as a sort of tour-operator managing groups of colleagues from many Spanish universities. Roser used to travel twice a year to India. She used to say that the old Geographical Societies had, as a basic aim, to develop discovery trips and that this was something that could be cultivated by contemporary geographers. On her trips to India she wanted to avoid the common and crowded destinations and she liked to surprise her colleagues visiting places that were not included in the tourist guides. She was known as the “traveller geographer” in Spain and many Spanish geographers knew about Asia thanks to her.

From Punjab to Bengal, from Tamil Nadu to the Himalayas, Prof Majoral loved the landscapes, the cultures and the peoples of the Hindustan — indeed, she was very critical of the partition of India in 1947 (Majoral, 1997b). She observed how Indian people make sense of their lives, in particular the castes, a system that she detested but that she was able to understand and to explain (as evidenced in her own words quoted above). She also noted how political revolutions were difficult to organise in the Hinduist-dominant areas, because of the Hinduist way of life. However, she observed that the Westernisation of India modified not only cultures and traditions, but also politics and the economy.

She lectured Geography of India from the 1990s at the University of Barcelona and gave numerous lectures about India; for instance, one to the Catalan Society of Geography on the castes in February 1997. Her lessons at the University were very popular and, although the unit was not compulsory, some years the room was full, with around one-hundred students. The syllabus of the unit was as follows:

[Modules taught in the academic year 2000–2001] (1) India in the Hindustan sub-continent: physical unity and diversity; a common history; political division and territorial re-structuring; (2) Human settlements, population and social structures: rural and urban areas; causes of the demographic boom; the castes; (3) Traditional economy and current economic planning: the importance of the primary sector; manufacturing development and decentralisation; tertiary sector growth and characterisation. (Valerià Paül's class notes).

However, Prof Majoral almost did not write about India. She used to say that the Geography of India should be carried out by Indians themselves, rather than by foreigners. According to her CV, she only authored three texts about India: two as book chapters of an encyclopaedic world regional geography in Catalan (Majoral, 1994a, 1994b) and a contribution about the controversial borders of India, Pakistan and Bangladesh and the Indian federal division into states (Majoral, 1997b) — a book chapter that she did not

like to mention because it was published directly from the early draft she had sent, without the opportunity to read and edit the proofs.

She felt committed to Indian geographers and she used to host invited lecturers from India to her home in Barcelona. In parallel, she spent several research periods, acting as visiting lecturer, at the University of Delhi, Bandaras Hindu University (Varanasi), University of Calcutta, Aligarh Muslim University and the Tribhuvan University of Nepal, since 1989 to 2003. She invited several scholars to contribute to the work of the IGU Commission on Geographical Marginality. In this respect, one of the earlier volumes of the works of this commission was co-edited by Prof R. B. Singh (University of Delhi) and herself, with the papers coming from the conference held in Český Krumlov in 1994, and including a contribution by Prof R. B. Singh about marginal areas in the Himalayas (Singh and Majoral, 1996).

The way she used to approach India, and (as explained earlier) geographical marginality, was through the regional dimension. Roser Majoral was a Professor in Regional Geography and, unlike many geographers in Spain who think that Regional Geography should be amalgamated with Human Geography, she intensely defended the autonomy of Regional Geography — i.e. in Spain, Geography professorships and lectureships can be ascribed to Physical Geography, Human Geography or Regional Geography. This tripartite division, decided in the mid-1980s, has received strong criticisms (e.g. Capel, 2003, 2013) and today (2018) is widely seen as an anachronism.

Prof Majoral used to say that in the traditional British Geography there were geographers specialised in different parts of the world. She said that this was obviously related to British geostrategic interests but also essential for the advancement of Geography — she translated Holt-Jensen (1988) in 1992 from English to Spanish, an introductory book on geography, as she was convinced it was something that morally she had to do as a Professor of Geography, and again, to liaise Spanish Geography with international references; this book contains a section on British Regional Geography. For her, world regional geography courses in Spain should avoid the university textbooks published by single author/s in Spanish. Alternatively, she advocated several Spanish geographers should become really specialised in particular world regions, and they should have a direct and intensive knowledge of the respective world region/country. This is a type of geographical knowledge that she instilled in her students — e.g. she insisted many times between 2003 and 2005 to the first of the authors of this contribution that he should become expert in Australia.

Roser Majoral's regional interest crystallised at a world level in India and Hindustan, but her regional works departed from the Pyrenees. Accordingly, the regional approach was at several geographical scales. In the Pyrenees she co-authored at least three monographs about particular small regions (*comarques* in Catalan, translated as “districts” or “counties” in English) published in the early 1980s: about Cerdanya (Majoral, 1981b), about Val d’Aran (López Palomeque and Majoral, 1982a, 1982b — the latter being a translation into Aranese, a variety of the Occitan language spoken in north-western Catalonia, possibly the first social sciences essay available in Aranese) and about Alt Urgell (Campillo, Ganyet, López Palomeque and Majoral, 1991), the *comarca* where she was born. To some of these regions she had previously devoted some of her consultancy reports developed in the 1980s for the Catalan Government, as explained above (see section

n. 3), for instance on rural planning and agriculture in the Val d'Aran (Majoral and López Palomeque, 1982, 1983) or, with regard to the Alt Urgell region, on the application of a particular legislation on mountain areas (Majoral, 1985) and an overall spatial diagnostic (Majoral, 1986).

### *6. Concluding Remarks*

This text has begun by arguing that biographical analyses of geographers in Spain aiming to offer in-depth scholar examinations with regard to scientific contributions and international academic communities are uncommon. Humbly, we have proposed some readings of Prof Majoral's geographies by focussing on three main sections that elaborate on her research foci of attention — resulting in more than 100 published works, a figure which used to be rarely achieved by a geography scholar in Spain — but also on her international connections — highlighting her critical contribution to the internationalisation of Spanish geography — and the geographical regions where she worked. Furthermore, this work also echoes the following words, which are written for the whole of the geography discipline:

When one wants to understand the evolution of modern geographical thought, only the study of the life and works of geographers allows us to approach the analysis of scientific investigations. Most biographical or critical studies deal with Ancient History, the Middle Ages or the Renaissance. There are few devoted to the great masters of nineteenth-century thought. For the last 70 years [written in 1964] we must content ourselves with brief obituaries published in the various geographical journals.

These notes are of great value, since they are written by friends, acolytes, who save very precise details from oblivion. They, better than anyone else, can retrace the life and spiritual path of those they are recording. Instead, they lack historical perspective, and the rules of the obituary genre limit their freedom. The obituary does not replace the published study with time and with the freedom that gives distance from the past. (Claval, 1964 [trans. 1981]: 18-19; own translation).

This paper has tried to go beyond a mere obituary, departing from the fact that one of its sources has been Lois' (2006) obituary on Roser Majoral. It is impossible to close these words without concluding that Prof Majoral was a singular Catalan geographer from the Pyrenees with a unique connection with the world as a whole, in particular with India and Asia. Indeed, she wanted to visit more Asian countries where she had never been; Rubén C. Lois' memory is that she hoped to visit Laos; Valerià Pauil's reminiscence is that she envisaged to know Samarkand. When she died, her possessions were bequeathed to an Indian humanitarian organisation, which exemplifies the profound love and commitment she felt for that region.

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