Rubén Camilo Lois-González *Editor*

Geographies of Mediterranean Europe

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Chapter 1
The Current Legacy of Geographies in Mediterranean Europe

Rubén C. Lois-González

Abstract In Western culture, the tradition of compartmentalizing the world in regions associated to concrete images dates back to ancient times. Greek Geography through Herodotus or Strabo played off the civilized world, the *Hellas*, against foreign barbarous people (Ortega 2000). In this way, the Mediterranean emerged as a centre of culture and knowledge. The Greeks are credited with the origin of Philosophy, Literature, Mathematics, Cartography and Geography, at least during an extended historical period in which the Western or Eurocentric narrative disregarded other distant traditions coming from the Chinese, Indian or pre-Colombian civilizations. Greece was the origin, the homeland of knowledge and good government, and the Romans (who eventually became Italians) transmitted their legacy throughout new and extensive territories, all articulated by the *Mare Nostrum*, the Mediterranean, always shown as the sea of civilization. The Mediterranean was one, but the strong cultural division between the two most popular books of religion (Islam of the Koran and Christianity of the Bible with its Old and New Testament) separated, and continues to separate, the two sides of this closed sea. A northern side linked from medieval times to the idea and the construction of Europe, and a southern side, facing east, looking towards Mecca, Damascus or Baghdad, as guarantors of the unity of civilization (Von Ranke 1827). This evolution is at the origin of concepts such as Europe or Mediterranean Europe, but it represented a complex repositioning of the Iberian, Italic, and Hellenic peninsulas in world geopolitics, although for centuries this has not been noticed.

Keywords Geography · Mediteranean region · History of science · Civilization · Innovation

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In Western culture, the tradition of compartmentalizing the world in regions associated to concrete images dates back to ancient times. Greek Geography through Herodotus or Strabo played off the civilized world, the *Hellas*, against foreign barbarous people (Ortega 2000). In this way, the Mediterranean emerged as a centre of culture and knowledge. The Greeks are credited with the origin of Philosophy, Literature, Mathematics, Cartography and Geography, at least during an extended historical period in which the Western or Eurocentric narrative disregarded other distant traditions coming from the Chinese, Indian or pre-Colombian civilizations. Greece was the origin, the homeland of knowledge and good government, and the Romans (who eventually became Italians) transmitted their legacy throughout new and extensive territories, all articulated by the *Mare Nostrum*, the Mediterranean, always shown as the sea of civilization.

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The Mediterranean ceased to be the centre, the place of navigation and exchange, and it became a hard border until the present day. In the fourteenth, fifteenth and much of the sixteenth centuries, the effects of this division were not appreciated in all its magnitude (Braudel 1949). The intense trade promoted by mercantile cities such as Venice or Genoa, and kingdoms such as those integrated into the Crown of Aragon, encouraged the continuity of all types of relations and tolerance in this space. However, the world changed its referents the moment the Portuguese and the Castilians began not only to sail and dominate the navigation in the Atlantic but also to colonize and conquer large regions in America, as well as the African and Asian coast. The Mediterranean was becoming small, insufficient and conflicts for control, always hidden in religious struggles or between large empires, began to surface. The seventeenth century already displayed the crisis of the European Mediterranean world, and the unquestionable Portuguese and Castilian hegemony, a hundred years ago was entering an irreversible decline, facing the push of new actors on the world stage such as Holland and England, which were Atlantic and northern (in addition to those who followed the religious dissidence facing the power of Rome) (Wallerstein 1974–1980).

The Europe of nations, of the decision-making citizens in their nation-state since the late eighteenth century, advanced throughout the modern era (Anderson 1974). A Europe driven by the northwest that, faced with the crisis of the Iberian kingdoms, the political fragmentation of Italy, and the Ottoman domination in Greece, began to elaborate descriptive categories of its different regions. Thus, apart from France, the entire south of the continent began to receive several stigmas about their character and, especially, that of its population. France had managed to maintain an

uninterrupted relevant position in the global context since the Middle Ages. It created the benchmark par excellence of bourgeois revolutions, its capital (Paris) located relatively north, and it also managed to conceal the Mediterranean origin of its citizens. Unfortunately these stigmas are revived in times of serious difficulties. Mediterranean people are not very trustworthy, they love to party, are less hard working and, after the monumental work of M. Weber (1905), are also seen as non-Protestants, Catholics in their majority and Orthodox towards the east. A set of stereotypes that have persisted throughout the last century have reappeared in insulting acronyms by the financial press of the *system* (PIGS) and in certain claims by respectable northern politicians of the whole ideological spectrum.

With the outbreak of the economic-financial crisis in 2008, the structural problems of the southern European economies and, in many cases, the magnitude of the housing bubble led to the collective blaming of the PIGS (Portugal, Italy, Greece and Spain), together with Catholic Ireland, as well as France, becoming the target of calls for structural reforms in their public sector and the benefits gained by their workers for decades. The collective blame and insulting denomination of Mediterranean Europe by the rich northwest or by influential international financial bodies resulted in high risk premiums, in a domino effect on these premiums and in the generalization on the causality of problems that on many occasions was not the same (Krugman 2012; Stiglitz 2016). Rich Europe made a historic effort to integrate the problematic south that, it was thought, had not responded with a responsible management of the aid received or their resources. The construction of a two-speed Europe has been defended as a solution to these practices on numerous occasions.

This generalist and malicious cataloguing of the neighbours of the south, of the Mediterranean people or of traditional Catholic societies, has also generated a set of unitary and protest reactions from Lisbon to Athens and Istanbul, which to a certain extent are behind the justification of this book. Firstly, the fundamental contribution of Mediterranean Europe to the construction of universal culture and knowledge is defended. The humiliation of Greece for the magnitude of its economic crisis brought out sympathy for the heirs of the civilization of antiquity that, throughout history, have accumulated more symbolic capital. Secondly, the economic difficulties of the countries of the south, subjected to bailouts and humiliating financial interventions, have been overcome by serious and exemplary government models. The case of Portugal today is an example of this. In the third instance, the societies of Mediterranean Europe are more diverse, richer, and more responsible than cartoons portrayed by some Anglo-Saxon media and actors. In southern Europe, the number of working days and hours throughout the year are higher, and recent increases in worker productivity have been remarkable.

All this combined helps acknowledge the quality of Social and Human Sciences thinking that has been developed in Mediterranean Europe. This is particularly so in France, 1960s and 1970s philosophers such as M. Foucault and G. Deleuze, as well as the thinker H. Lefebvre and more recently B. Latour (Foucault 1969; Latour 1993), have revolutionized contemporary thinking. From Italy, the novelty came from the town planning with A. Rossi and F. Indovina, among many others, and from political science with authors and philosophers such as N. Bobbio, M. Cacciari

or A Negri, to account for the enormous diversity of the contributions made (Negri and Hardt 2000; Rossi 1966). Spain, traumatized by the Franco dictatorship, had influential sociologist M. Castells, with undoubted renovating productions in plastic art and cinema (Castells 1989). Portugal has emerged as the undisputed reference point of a critical cultural world of similar linguistic expression, which includes Brazil and part of Africa, and has especially original thinkers (Sousa-Santos 2016). And modern Greece has trained urbanists and influential social scientists, as well as media economists, who have been able to spread their alternative take on current reality (Varoufakis 2012). In Turkey, the political turbulence has hindered the construction of an autonomous critical thinking until recently, although the situation seems to have changed in recent years. Therefore, to think about Geography, to stop to reflect on what work and practical achievements correspond to the spatial and territorial knowledge of Mediterranean Europe countries seemed a must. This is how this book was initially conceived.

A first approach to the geographies cultivated in Mediterranean Europe reveals the enormous influence of the French tradition on the academic work of other countries. The regional-landscape school created by P. Vidal de la Blache between the nineteenth and twentieth century served as an indisputable canon for his compatriots, the Spanish, Portuguese, Italian and Turkish university students who followed the model of analysis conceived in Paris, as an indisputable reference (Gómez-Mendoza 1997; Robic 2006; Vidal de la Blache 1922). Only in Greece, where the weight of British or American universities has always been greater, the French paradigm did not reign absolutely. A reign that privileged, as is mentioned in different contributions of this work, academicism: the objective of geographic studies consists of advancing spatial and territorial scientific knowledge, as well as the analysis focusing on rural areas, favouring a marked hegemony of rural geography and until relatively recently the geomorphological approach in the field of physical geography. In addition, the theses and monographs almost always referred to local and regional scales of analysis, avoiding any generalization and replacing much of the theoretical foundation with a holistic understanding, often tinged with descriptions and encyclopaedism (Lois et al. 2018; Ortega 2000).

In the last few decades, and more rapidly in recent times, novelties in the way of tackling geographic research have taken place in Mediterranean Europe. In this regard, it is worth mentioning the arrival of new and important influences from abroad. Since the 1960s or the 1970s, due to its late dissemination, British and North American analytical or quantitative geography treaties began to be published in Spanish, French, Portuguese and Italian, causing a telling effect (Chorley and Haggett 1967; Harvey 1969). At almost the same time, radical Geography, in particular the Marxist-inspired, was enriched by contributions from influential local geographers affiliated with communist parties and organizations, who had participated directly or received training that was strongly influenced by the events of 1968 and the subsequent creation of a powerful student movement. In fact, together with the immediate assumption of critical urbanism by French and Italian authors mainly (Lefebvre 1974; Salzano 1998), some geographers and sociologists of Marxist inspiration elaborated fundamental works to demonstrate the capitalist

mechanisms that governed the land market (Capel 1975; Topalov 1984); to define the keys to the personality of Mediterranean cities, which continue to the present (Guarrasi 2011; Leontidou 1990); or to ask about how Geography could become a fundamental weapon for war (Lacoste 1976). The ecogeographic or integrated approach to physical Geography was also built during these years in French universities, adopting unconventional perspectives of spatial and territorial analysis (Bertrand 1981; Tricart 1979).

In recent decades, Anglo-Saxon contributions of the Geography of perception, of humanists or of postmodern and post-structuralist approaches, have been incorporated with positive results into the intellectual heritage of European Mediterranean geographies. A paradoxical fact of all these currents is that most of them feed from the theoretical or philosophical works of original thinkers of Central Europe, France and Italy, among others, a group of influential authors who are cited from their late translations into English in the most renovating works of spatial analysis. An outstanding example of this situation was mentioned by E. Soja regarding his discovery of the work of H. Lefebvre thanks to his relation with Greek geographer K. Hadjidakis (Soja and Hadjidakis 1979). Again, the Mediterranean is at the centre of cultural and intellectual developments, through centres such as Paris, Barcelona, Milan, Rome, Athens, Istanbul, Lisbon, Madrid, etc. In these cities and in other more traditional ones, respected universities and high-level research centres have been consolidated, acting in all regions as centres of reception, production and diffusion of scientific novelties, always interconnecting the global and the local in all directions.

Listing the main novelties and original contributions of Geographies of Mediterranean Europe and their respective national variations is the objective of this book. In this regard, the discipline in charge of spatial analysis has made a notable effort to develop its applied aspect, in order to contribute to the construction of an effective territorial organisation, especially in France, Spain and Portugal. Additionally, the theoretical bases of Geography have been greatly enriched by the original contributions of authors based in Paris, Barcelona, Bologna or Athens, who were directly inspired by the renovation in the field of knowledge from the 1960s and 1970s. The integration of Geography and physical Geography still encounters serious practical difficulties and in the formalization of a common discourse, evidence that has led to a deep separation in Italy and Greece. However, the progress made in studying the effects of climate change, the cycles and landscapes of water and the application of ICTs to environmental analyses seem to indicate the path to a future disciplinary integration. Finally, Geography demonstrates an acceptable academic presence and an important recognition between Social Sciences and scientific disciplines for its efficiency at integrating research from different perspectives.

In regard to the questions that we have been analysing in the Geography cultivated from Portugal to Turkey, five stand out. We will briefly refer to them in the present introduction. Firstly, the academic institutionalization of the discipline. Secondly, the spatial and territorial analysis in the current scientific system. Thirdly, the importance acquired by the discipline's theory and applied components in the different countries. Fourthly, which geographical branches have been repeatedly addressed and which are marginalized, taking as a reference the standards from

English speaking countries. Finally, a general review will be made on the state of Mediterranean European geographies based on their scientific and university fragility or robustness.

The university institutionalization of Geography started early, especially in France and Italy, as stated in multiple works. It was necessary to know and systematize the understanding of the national territory and early on this task was fulfilled by History and Geography. This classic association between the two great disciplines that analyse time and space, still remains in many faculties in southern Europe, where lecturers, study programs and departments still have a close relationship. A second reason that encouraged the creation of the first Geography university chairs was the colonization of Africa, South Asia and South America, where countries such as France and Portugal were prominent, and which Italy tried to emulate several times during the twentieth century. In this way, the aim of the discipline was not only to learn the geographical features of a national territory, but it was also used to describe the colonies, domains and overseas protectorates, creating an imperial feeling of community and discovering the possibilities that the world outside Europe offered to nations willing to be part of a changing world.

On the other hand, institutionalization has produced positive results in the strictly academic sphere. It has highlighted the interdisciplinary nature of Geography, which has been integrated into research teams with Sociology, Economics, Biology and Geology, as well as technical knowledge such as Architecture and Engineering. In a university context where the differences between fields of knowledge have been diffused, this versatility has been especially positive, although on many occasions there has been the risk of the geographical becoming blurred. Second, the prestige and authority of our discipline has been directly linked to the ability to make and interpret maps. As F. Farinelli has theorized, the cartographic reason is basic to Western thought and, in this aspect, the role of Geography is widened (Farinelli 2009). In this way, geographers are experts on maps, the same way as architects and engineers are experts on floor plans, sociologists on surveys or economists on charts.

As previously mentioned, reference has been made to the inclusion of Geography among Social and Human Sciences and some technical territorial disciplines. Once again, our knowledge acts as an integrating factor in the six Mediterranean countries object of study. This can be seen in the material presence on university campuses, in certain faculties and in higher education degrees. Thus, although it is uncommon for Geography to establish its own university faculties or schools (with the exception of Paris-La Sorbonne and the Universidade de Lisboa), it is mainly integrated within Humanities centres (together with History, Sociology, Philology, etc.). It is also common to be located within Economics, Finance and Tourism faculties (particularly in Italy and some cities in southern Spain) or having isolated geographers working in Architecture and Engineering technical schools. This is due both to the consideration of the discipline as a social science (close to Sociology, Anthropology and Economics), with a strong humanist tradition (as with History) and with elements that place it into the so-called earth sciences (next to Geology or Edaphology) and urban and territorial planning (where architects and engineers coincide).

Geography remains a separate higher degree in Portugal, France, Spain and Turkey. It is present in all medium and large universities and is complemented by

masters and postgraduate courses. In Italy and Greece, there are few institutions with independent Geography studies. They are integrated in Humanities, Economy and Architecture degrees and in some cases within Tourism or Environment degrees. This complex geographical situation map in Mediterranean Europe is parallel to its integration in both basic and applied research institutes and centres. It is shared with economists, sociologists, biologists or architects, among many others. In this diverse and complex relationship, it should be noted that Geography shows two somewhat contradictory features. A classic and somewhat monotonous knowledge for students who finish high school and choose to enter university and a highly prestigious field of research and doctoral training that attracts many graduates from other disciplines.

A third issue to be addressed is the relationship between geographical theory and practice. To begin with, one could say that the discipline's theoretical corpus in Mediterranean Europe is clear. It derives from the Vidalian regional and landscape tradition of holistic approach, which built an academic, coherent and recognizable discourse between the human and social sciences. During the last 50 years, and as has been pointed out, it has been enriched and/or abandoned with the successive arrival of new paradigms or disciplinary approaches usually from the Anglo-Saxon world. However, the theoretical power of the French, Italian and Greek geographies has fully remained. In this respect, the renewal of philosophical, urban, sociological or political science thinking taking place in these nations has been assimilated. For its part, in the Iberian Peninsula, the shadow of long dictatorial periods has resulted in a permanent anaemia of methodological or ideological debates about spatial analysis. Applied research and the desire to directly influence public decision-makers in all kinds of territorial issues have been promoted.

The applied dimension of Geography is present throughout Mediterranean Europe under the generic label of Territorial Ordinance or Territorial Planning. It has been directly influenced by proposals made in France since the 1950s, both by its academic institutions or, for example, the DATAR (Délégation Interministeriale d'Amenagement du Territoire et à l'Attractivite Regionale) (Deyon and Frémont 2000; Perroux 1965). Ordinance has remained a sign of identity of the disciplinary practice in France and has expanded throughout democratic Portugal and Spain. In the first case due to the continued presence of geographers either in governmental bodies, or drafting official regional or metropolitan plans. In Spain, the creation of the Autonomous Communities and the consolidation of democratic municipalities have influenced the professional recognition of Geography. This is a tradition that, although it seemed weaker in Italy, is widely discussed in one of the chapters of this book. Therefore, applied Geography, together with the theoretical proposals, does not constitute a minor legacy in the geographies of Mediterranean Europe.

If we look at the internal articulation of geographical discourse in the entire region, it should be noted that the integration between a unitary reading of the discipline and a differential reading of physical Geography has not yet occurred. The Geography understood as social science and the hegemony of rural studies have given way to a greater number of books, articles and research on the city and urbanization. This is true in all countries, except in Italy, where the enormous influence of architects and urban planners has greatly limited the advancement of this branch of

urban Geography and the proposals for territorial planning. In this area, economic Geography has also been strongly affirmed since the 1970s, while social and cultural approaches, the result of closeness to other disciplines such as Sociology and Anthropology, have advanced significantly. In Mediterranean Europe, the territorial analysis of tourism has generated an exceptionally solvent line of work, while Geodemography has not been consolidated in its classic principles of the 1970s and 1980s, although analyses of migrations and population mobility are proliferating. Finally, rural Geography has been based on studies focused on the local, sustainable development and has helped reinforce a regional and regionalist reading which is still current in Mediterranean European geographies.

In physical Geography, the dominance of the geomorphological has remained, although in many cases abandoning its strictly geographical character in favor of approaches closer to Geology and the Earth Sciences. As has been repeated throughout the book, this situation has posed a serious problem of unity to the discourse of the discipline in Mediterranean Europe. This is an absence of unitary character that in Italy and Greece has been solved with the departure of most physical geographers to other departments and faculties. Faced with this discouraging scenario, and also noted in several of the chapters included in this volume, the environmental, climatologist, biogeographic and landscape approaches, as well as sensitive issues in the Mediterranean such as the question of water, allow the building of foundations of a complete reintegration of everything physical and human in Geography. This approach still lacks theoretical treaties that earnestly defend the rethinking of the geographical discipline of the twenty-first century from a more unified perspective, as that in the English speaking world (Matthews and Herbert 2004). However, the foundations are in place, and the impulse recently received by the Territorial Planning, the use of ICTs in territorial analysis and the application of the sustainability criterion to development strategists have promoted an inclusive discourse in the geographical discipline cultivated in southern Europe.

A final, to some extent conclusive question of the key elements of study on Geographies of Mediterranean Europe is their strength versus their fragility. As has been often stated, Geography defines a modest academic community, in spite of the reinforcement of the spatial and the territorial versus the temporal and the historical defended by the authors who have renewed the ethos since the 1960s. It gives the impression that the analysis of territorial basis has been reinforced, but this fact has not had its direct correlation in the geographical discipline. The role of social science to which we belong is always inferior to that of History, Economics and Sociology, which have constituted more influential scientific communities. This implies a series of positive effects at least in our experience as Mediterranean Europeans: the cohesion of the group of geographers is strengthened (with integrating and demanding associations), and survival strategies have been proposed, which have allowed, among other results, to consolidate an applied, planning variant of the discipline. In this way, today Geography is useful, highly regarded in terms of research and practice, and valued for its ability to collaborate with other sciences in common works. This gives it a great robustness, palpable especially in France and Portugal or in certain Spanish regions. However, the weaknesses and threats come

from its low esteem and classicism in Secondary Education, which translates into a weak number of university students enrolled and in the difficulty of perceiving it as a discipline of clear profiles as opposed to other related areas such as History, Geology, Sociology or Architecture, among others.

To finish, this book is structured in sixteen contributions corresponding to authors of the six European Mediterranean countries that we have selected. No nationality accounts for more than four individual or collective contributions, and only Greece and Turkey have been left with a single work signed by an influential colleague. With regard to the internal organization, it has been decided to group the texts into three large sections. The first one is reserved, logically, for the great contributions of geographical thought in several of these countries. The second relates to issues that have been and are currently being studied by the geographies of Mediterranean Europe. The third block focuses on the applied analysis of our discipline, both on transport systems and political-administrative organization as well as territorial planning.

In relation to the geographic knowledge generated throughout the region, it is still incredibly difficult to elaborate a common text that encompasses all the national schools of interest, beyond the brief notes included in this presentation. Therefore, two comprehensive itineraries have been carried out in the Portuguese and Spanish geographical tradition. The first coordinated by J.A. Rio-Fernandes of the Universidade de Porto and with the authorship of other influential colleagues also from Porto and Lisbon. The one which refers to Spain was authored by this book's editor. In addition, P. Landini has been included; it concerns the essential theme of the relations between Geography and territorial planning in Italy.

The second part of the work is the most extensive, since it encompasses half of the contributions made. It is divided into two sections, of a similar nature, one dedicated to reflecting on the landscape and environmental issues and the other focused on urbanization, the diaspora and new economic activities. The most physical section is made up of two texts written in Portugal, one on Geography and environmental data by the professor of the Universidade de Coimbra L. Cunha and the second on the new approaches to the study of rural landscape, signed by Mª. T. Pinto-Correia of the Universidade de Évora. The analysis of climate change and the problems associated with water, its availability, consumption and management is addressed by Alicante professors J. Olcina and M. Hernández. Finally, the work by B. Gönençgil and Z. Acar analyzes one of the most important elements of the Mediterranean climate and its variability, its episodes of extreme temperatures and rainfall in Turkey.

The section on urban, economic and mobility Geography begins with a historical geographical contribution of French professor J. Y. Puyo. This contribution proposes a suggestive and original approach to the utopias of territorial planning in the Mediterranean region. Secondly, a very deep reflection on the "Soft City," focusing on the city of Athens, and written by the prestigious L. Leontidou. Commerce and Geography, their relationship, is the subject of two separate works referring to France and Italy. The first of them authored by the professors of Paris VIII and Paris IV-La Sorbonne, N. Lemarchand and L. Dupontand: the second corresponding to

the Catanese School of Geography, led by C. Cirelli. To conclude, the Mediterranean as a territory of a new frontier, diaspora and scenario of the cosmopolitan city has been chosen by V. Guarrasi as the theme for a first contribution. The second contribution on this subject is authored by L. Lopez and focuses on theoretical debates on the notion of the Mediterranean city in its relationship with an ancient culture, and intense forms of socialization, often taking advantage of the climate and public spaces.

In the last part, the applied character of the discipline is stated with four works on diverse topics. Firstly, the comparative analysis of the system and the structuring transport networks in France and Spain; the possibilities offered by the critical analysis to address this issue have been carried out from Geography by J.P. Wolff. Secondly, an approximation is made to the complex world of the Autonomous Regions and nationalities, in modern-day Spain. A study signed by one of the greatest specialists on the matter, Madrid based J. García Álvarez. Finally, this work is completed with a more generic approach on the unequal attention given by Spanish geographers to the issues of Political Geography, in a large and well-documented chapter written by the Catalans O. Nel.lo and A. Durà.

As you can see, a wide and balanced journey has been made on Geographies in Mediterranean Europe. A work that could have been more extensive and systematic, but where for the time being it only aims to provoke a transnational debate on the state of our discipline that will have to be completed and enriched by other subsequent contributions.

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Part I
The Great Contributions of Mediterranean Geographical Thought

Chapter 2
Geography as a Social Science in Portugal

José Rio Fernandes, João Ferrão, Jorge Malheiros, and Pedro Chamusca

Abstract The emergence and affirmation of Geography in Portugal was influenced by Latin-rooted cultures and languages, with a particular emphasis on the French tradition, with secondary school education assuming a central role in the recognition of the discipline. After a relevant transition in the 1970s, Human Geography became much more influenced by Anglo-Saxon authors and since the 1990s by a thematic specialization and a connection to spatial planning. This specialization goes hand in hand with the development of research in the various domains of Geography, which, in the twenty-first century, is clearly associated with increasing competition for funding and productivity measured by the number of papers in international high-impact-factor journals. This text addresses the presence of graduate and postgraduate Geography at universities. It then analyses recent research developments (based on PhD titles and articles published in the two main Portuguese scientific journals), confirming the specialization and fragmentation of topics as well as an increasing internationalization in which Brazil plays a key role. It also underlines the relevance of the work that is being done by geographers' associations, as well as in other spaces where Portuguese geographers are stimulating change on policies and planning. Finally, some remarks are presented regarding

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present and future challenges, considering the social responsibility of geographers in an ever-increasingly complex world. In this respect, the Mediterranean region is a cultural space with a strong potential for cooperation, able to promote an innovative Geography based on Mediterranean lenses, and is the object of some final words.

Keywords Geography · Portugal · Teaching · Research · Challenges · Mediterranean

2.1   Introduction

This text presents a brief panoramic vision of the recent evolution of Portuguese Human Geography. The autonomous consideration of the social, cultural and economic fields of Geography facilitates this review, with Physical Geography presented in a different chapter. Even so, we are aware that the artificiality of this dichotomy, which runs throughout the history of modern Geography, from the traditional regional monographies to recent studies, does not allow for adequate consideration of human-non-human relationships related to crucial topics such as environmental hazards, climate change territorial impacts or urban nature-based solutions. It should also be stressed that it was not possible to properly capture the relation between Portuguese Geography and different Mediterranean geographies, as there is neither much evidence of relevant connections between Portugal and other countries of the Mediterranean Basin, with the exception of Spain, nor is there enough information or cross-comparative research about the evolution and characteristics of Geography institutions and perspectives in these countries.

The text is divided into seven sections. After this introduction (Sect. 2.1), we present an analysis of the evolution of Portuguese Geography from its institutionalization at the end of the nineteenth century until the present day, aiming to inscribe the main changes into broad theoretical, institutional and thematic orientations (Sect. 2.2). The two following sections are focused on the twenty-first century, dealing with the main areas of geographical intervention: education (Sect. 2.3) and research (Sect. 2.4). Politics, planning and collective structures of Portuguese geographers are the topics of Sect. 2.5, where the social visibility and relevance of the discipline is the main focus. Finally, the last sections include some notes on internationalization, the identification of the main challenges to Portuguese Geography (Sect. 2.6) and a final remark on Mediterranean Geography as seen from Portugal (Sect. 2.7).

From a methodological point of view, the most important bases for this brief analysis are as follows: (i) bibliographic review (Sect. 2.1), (ii) statistical analysis of data produced by official bodies (Sects. 2.2 and 2.4), (iii) content analyses of the two main Portuguese Geography journals (*Finisterra* and *GOT*) (Sect. 2.3) and, for all sections, (iv) personal knowledge about the Portuguese geographers' community.

2.2 Evolution: The Institutional Establishment of the Discipline

From an institutional perspective, the roots of Portuguese Geography were established in the nineteenth century, with the inclusion of Geography in general education, the foundation of the Lisbon Geographic Society in 1875 and the creation of the discipline at the Universidade de Lisboa in 1904 (whose chair and professor was Silva Telles[1]). It is possible to consider a first period characterized by two main aspects: first, the consolidation of the discipline in secondary education based on an 'encyclopaedic' paradigm where memorization is crucial and second, its initial implementation at the universities of Coimbra and Lisboa, dominated by French influence from the traditional Regional School associated with Vidal de la Blache since the 1940s, with Amorim Girão (1960) standing out in Coimbra and Orlando Ribeiro (1945) in Lisboa. The second half of the 1970s and the early years of the following decade clearly marked a new era in Portuguese Geography (Gaspar 1982), characterized by a reform and broadening of the higher education academic offer and the professional expansion of geographers' activities.

This period of transformation, in which José Manuel Pereira de Oliveira (Coimbra and Porto), Jorge Gaspar and Carminda Cavaco (Lisboa) and Rosa Fernanda da Silva (Porto) played a relevant role, is inextricably linked to the process of democratization of Portugal after the April 1974 Revolution, which opened up horizons for a new university and also contributed to creating new opportunities for geographers. In relation to the theoretical and methodological guidelines for higher education in Geography, the transformation that started at the beginning of the 1970s became dominant, highlighting an epistemological break marked by a transition from the traditional regional perspective towards a progressive affirmation of Anglo-Saxon neopositivist approaches of the so-called New Geography. This includes the development of spatial theory, the use of deductive explanation models, a focus on the identification of spatial patterns and the recourse to quantitative methods oriented towards, on the one hand, the resolution of location or spatial organization problems[2] and, on the other hand, 'thematic geographies' which contribute to the separation of Human Geography and Physical Geography, as well as highlighting the areas of specialization within each of them.

However, these epistemological and thematic changes would soon receive influence from 'Critical Geography' inspired by Marxist thought that benefitted from the Portuguese revolutionary environment of the second half of the 1970s.[3] In addition to a political and social environment that favoured the development of critical

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[1] See Silva Telles (1916/2004) and Ribeiro (1976).

[2] This is widely illustrated by the work of Jorge Gaspar "A Área de Influência de Évora – Sistema de Funções e Lugares Centrais" (*The Area of Influence of Évora – Functions and Central Places System*) (1972), the most emblematic work in Geography from this period.

[3] Within this area, the main domains were Electoral Geography (André 1988; Gaspar et al. 1984; Gaspar and Vitorino 1976), relating the elections results with local social structures; Industrial

thinking, other elements have contributed to this transition. On the one hand, a former specialization in the Geography of tropical regions designed to respond to the research needs of the Portuguese colonies in Africa and Asia, where Orlando Ribeiro (1994) and some of his disciples, like Ilídio do Amaral (1979, 2001), Raquel Soeiro de Brito (1997) as well as Suzanne Daveau, and later Carlos Alberto Medeiros made fundamental contributions, largely lost its "raison d'être" as a result of the late end of the Portuguese colonial empire, in 1975. On the other hand, the recognition of the importance of Applied Geography in terms of spatial planning benefitted from another reform of Portuguese democracy: the institutionalization of the local democratic municipalities, with elected bodies, extended competences and some financial autonomy. As a result, all subjects related to spatial planning enjoyed an increased emphasis in university Geography courses and in the 1980s even justified the first Geography and Planning degree at Universidade Nova de Lisboa, and then at Universidade de Lisboa, in a process that expanded to all other universities with Geography teaching. In addition, and also as a result of this action from the universities, the presence of geographers in the planning cabinets of local authorities, private enterprises and also national and regional public bodies dealing with planning policies design and monitoring has become more common.

The emergence of new themes and specializations in the 1990s and at the turn of the century must also be noted, as well as advancements in research techniques and methods, largely as a consequence of progress in computer systems and data and image processing. These changes took place within the expansion of the academic offer in Geography, since the two courses that were on offer for a long time (Universidade de Coimbra and Universidade de Lisboa) had become four by the end of the 1970s, with the creation of degrees in Geography at the Universidade do Porto and Universidade Nova de Lisboa. At the same time, a significant growth in demand occurred in the late 1970s and early 1980s due to the democratization and consequent massification of higher education. New courses were created at the Universidade do Minho in 1996 and at the Universidade de Évora in 2003, completing the map of public higher education institutions with Geography degrees in Portugal. It is relevant that this period saw the implementation of the Bologna process, along with a significant increase in the number of master's and PhD programmes. There was a spread of specialization and interdisciplinary studies. Outside the university, the importance of Geography in education did not suffer drastic changes, and, together with History, it remains the only mandatory discipline in Social and Human Sciences present in the curricula until the 9th grade. Meanwhile, geographic information systems, remote detection, digital cartography and territorial modelling have become much more important in research and in various professions, lending more visibility to the discipline and broadening employability by the end of the century (Malheiros 1998). At the same time, there was a significant strengthening of the international connections in higher education, research and

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Geography (Ferrão 1987), based on a neo-Marxist approach; and Social Geography, focused on the regional distribution of social classes (Ferrão 1985).

planning with European colleagues (not only Spanish and French, but also British, Italian, German and Nordic) that benefitted from the new context that Portugal found itself in following accession to the EEC in 1986.

This process has consolidated and diversified over the last two decades with an increasing number of younger geographers taking PhDs, involved in international research projects and expanding their cooperation with foreign colleagues. This has resulted in theoretical, methodological and thematic diversification and also in the reinforcement of international production and international relations. Actually, in the twenty-first century, internationalization has reached other spaces, with an emphasis on Portuguese-speaking countries, most notably Brazil.

2.3   Education: If Geography Is a Central Discipline in School, Student Education Is Also Essential for Geography

Within the domain of knowledge and basic skills, Geography has remained an essential part of citizens' education (Esteves 2012). This helps in understanding the high number of graduates who have secured jobs as teachers in secondary schools. Geography is a compulsory subject in the 7th, 8th and 9th grades, with 2 or 3 hours per week, and an optional discipline in the 10th, 11th and 12th grades, the last of the 12 years of free and compulsory education in Portugal.[4]

In 2018, a review of a strategic document on 'essential learning' was published, proposing that, by the end of the 11th grade, students should be able to recognize the identity and spatial diversity of Portugal in national, European and global contexts. Order 8476-A/2018, from 31 August 2018, approved essential studies of the various disciplines in four study domains: science and technology, socio-economic science, languages and humanities and visual arts. The themes included for the 10th grade (in a preliminary version from July 2018) are:

> … the problems with territorial dynamics, demographic aging and migrations; global warming and the importance of renewable energies; the inter and intra-annual irregularity of the climate the risks and vulnerabilities associated to it; the consequences for the management of forest areas and desertification of large areas of the territory from global warming phenomenon and climate changes; the management of water resources at different levels; sustainability and tourism; the emerging sea economy and its consequences for Portugal; the potential of a peripheral location in Europe, but central in the context of big intercontinental routes.

In the 11th grade, the following are considered as essential topics:

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[4] In the last 3 years of compulsory schooling, Geography courses are only offered to students in the broad area of human sciences, namely, in 'socio-economic sciences' or 'languages and humanities'. In addition, geographical themes are also taught in some vocational courses where the territorial dimension is present, often being lectured by geography graduates.

Table 2.1 Portuguese universities that award a graduate degree in Geography and similar areas, considering courses where there is no reference to the discipline and that may be subject to evaluation in another scientific area

University	Graduate Degree
Universidade de Coimbra	Geography
	Tourism, Territory and Heritage
Universidade de Lisboa – IGOT	Geography
	Spatial Planning and Management
	European Studies
Universidade do Porto	Geography
Universidade Nova de Lisboa	Geography and Regional Planning
Universidade do Minho	Geography and Planning
Universidade de Évora	Geography

Source: Geography Department Websites from Portuguese universities, accessed 31 August 2018

the exploitation and sustained management in farming areas, forests and common land; the role of cities and their social and economic functions in reorganizing the urban network on a national and European scale; mobilities which are absent on more technological transport, information and communication networks, fundamental aspects for the further development of new territorial dynamics and social and territorial cohesion.

The discipline also exists in the 12th grade, showing a very strong incidence on issues related to the process of globalization.

At the university level, Geography is currently taught in six institutions: the universities of Coimbra, Lisboa, Porto, Nova de Lisboa, Minho and Évora. Nine graduate courses existed in 2018 (Table 2.1) and five more are expected.

The number of master's courses related to Geography has increased progressively, reaching a total of 21 in August 2018 (Table 2.2). Recently, new transversal domains have been added to well-established fields (e.g. Geography, Spatial Planning, Geographical Education), by various departments of Geography. It is also noticeable that practically all of them, and some in particular, are also providing an adequate answer to the contemporary digital turn in Geography sometimes explicitly stated in the name of the course.

2.4 Research: Expansion, Internationalization and Interest Widening

Detailed data on collective research projects is not available, so we have considered PhD studies as an alternative. We think they may represent good indicators, as they are often associated with research groups, or at least with senior researchers (the PhD supervisors), and because they are conducted by young investigators, give a good indication on more current themes.

Table 2.2 Portuguese universities that award Masters in Geography and in similar areas

University	Master
Universidade de Coimbra	Physical Geography, Environment and Spatial Planning
	Human Geography, Healthy Territories and Planning
	Tourism, Territory and Heritage
	Primary (7–9 years) and Secondary Education Teaching in Geography
	Social Dynamics, Natural and Technological Risks
	Geography Information Technology
Universidade de Lisboa – IGOT	Physical Geography and Spatial Planning
	Spatial Planning and Town Planning
	European Policies: Socio-territorial Cohesion and Development
	Human Geography: Globalization, Society and Territory
	Geography Information Systems and Territorial Modelling Applied to Planning
	Teaching Geography
	Tourism and Communication
Universidade do Porto	Risks, Cities and Spatial Planning
	Geographic Information Systems and Spatial Planning
Universidade Nova de Lisboa	Spatial Management
	Primary (7–9 years) and Secondary Education Teaching in Geography
	Geographic Information Systems and Spatial Planning
	Sustainable Urbanism and Spatial Planning
Universidade do Minho	Geography
Universidade de Évora	–

Source: Geography Department Websites of Portuguese universities, considering courses where there is no reference to the discipline and that may be subject to evaluation in another scientific area (accessed 31 August 2018)

The General Directorate for Education and Science Studies[5] mentions 204 doctoral theses completed between 2000 and the first semester of 2018 in the disciplinary area of Economic and Social Geography. A relevant point to mention is the quantitative increase of doctoral theses, especially since 2011 (Fig. 2.1). In fact, 56.9% of all doctoral theses approved in this 18-year period were completed between 2012 and 2017, whereas those registered in the first 6 years correspond to just 18.6% of the total. This evolution, which saw a steep decline at the end of the economic and social crisis period (2013–2015), benefits from structural elements, such as the increasing social and professional value of postgraduate qualifications, which encourages a relevant number of young people to continue their studies. In addition, the implementation of a structured and continuous PhD grant system by the State has contributed to facilitating students' access to research.

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[5] The information regarding doctoral theses and master's dissertations in Portugal is available on the RENATES (National Register for Theses and Dissertations) platform.
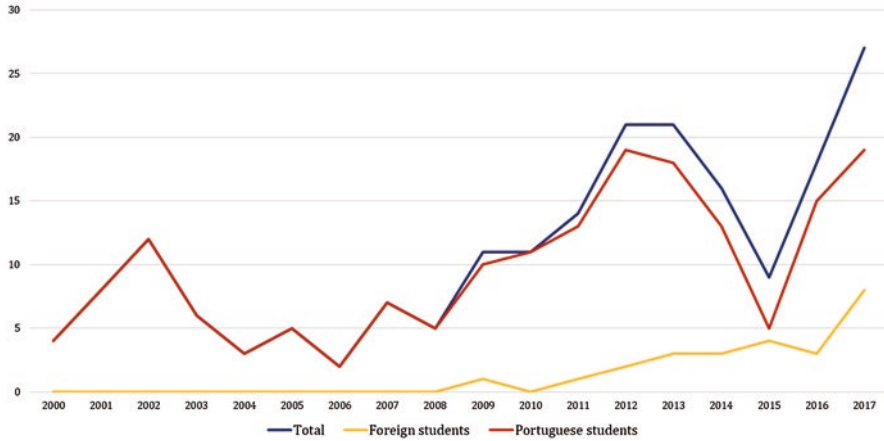
Fig. 2.1 Evolution in the number of doctorates (2000–2017). (Reproduced from RENATES)

The distribution of doctoral theses by gender shows a constant supremacy of male students over the years (58.8% of the total). Unsurprisingly, the universe of doctorates is dominated by Portuguese students (86.8%), showing, however, a growing trend in the number of foreign students. This evolution is especially clear from 2012 onwards, with theses defended in Portugal by foreign students representing 21.6% in recent years, and its weight reaching 44.4% in 2014. Amongst foreign students, Brazilians clearly stand out (44.4%), followed by Angolans, Cape Verdeans and Mozambicans (24%). More recently (2017 and 2018), there has been an increase in the number of Italian students (12%).

In terms of geographical distribution (considering Portuguese education institutions where doctorates are enrolled), there is a high concentration in Lisbon, with all the universities located in the capital representing 60.8% of theses completed since the year 2000 (Fig. 2.2). Amongst these, the Universidade Nova de Lisboa is responsible for more than a quarter of theses completed in the country (26%). Over time, a large increase in the number of theses has occurred at the Universidade de Coimbra and the Universidade de Lisboa, with the universities of Lisboa, Porto and Minho showing a decrease in recent years (Fig. 2.3).[6]

Detailed analysis of the unit where the doctorate was undertaken shows a greater interest from Geography departments, despite the theses registered in Economic and Social Geography not pertaining exclusively to them (Fig. 2.4). At the top of the list is the Faculty of Social and Human Sciences at the Universidade Nova de Lisboa (22.1%), followed by the Institute of Geography and Spatial Planning at the Universidade de Lisboa, which, along with the Faculty of Humanities at the

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[6] Please note that some graduates in Geography are not considered here, mainly those who obtained their doctorates outside Portugal or in institutions that have transdisciplinary doctorate courses (as is the case of the Institute of Social Sciences at the Universidade de Lisboa, for instance), or in thematic courses that group together professors from different institutions.
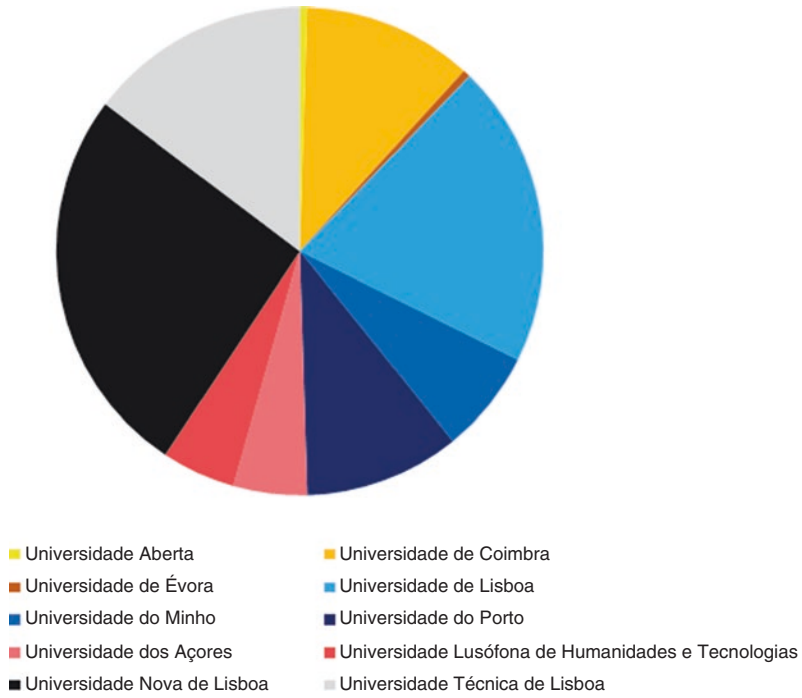
Fig. 2.2 Number of doctorates by university (2000/2001 – First Semester of 2018). (Reproduced from RENATES)
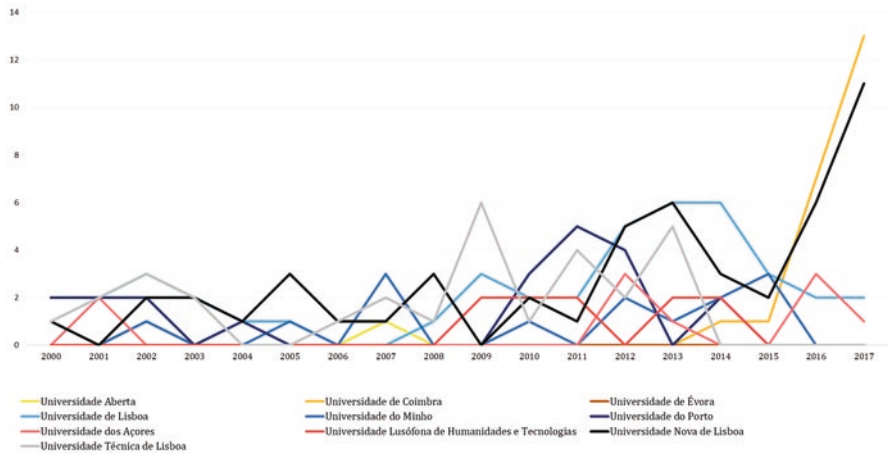
Fig. 2.3 Evolution in the number of doctorates by university (2000–2017). (Reproduced from RENATES)

Fig. 2.4 Number of doctorates by organic unit (2000/2001 – First Semester of 2018). (Reproduced from RENATES)

Universidade de Lisboa (where the Geography Department was located before the creation of the Institute in 2008/2009), represents 18.1% of the theses.

Looking at the courses' or doctorate programmes' names, we see relevant thematic differences (Fig. 2.5). Even though five names stand out, namely, Geography (37.7%), Geography and Spatial Planning (10.3%), Urban Planning (10.3%), Geography and Regional Planning (7.4%) and Tourism, Leisure and Culture (5.4%), a doctorate in Geography can be found at several universities, while others are directly associated with some of the institutions or organic units of a given university, as is the case with Geography and Spatial Planning and Geography and Regional Planning, which are exclusive to the Faculty of Social and Human Sciences at the Universidade Nova de Lisboa, corresponding to a change in the name of the doctoral programme. As far as the Tourism, Leisure and Culture course is concerned, the offer is specific to the Universidade de Coimbra, registering a high demand in 2016 and 2017 and representing 47.8% of all doctoral theses registered in Social and Economic Geography at the Universidade de Coimbra. The Institute of Geography and Spatial Planning of the Universidade de Lisboa also has a doctorate in Tourism, which often registers the highest number of enrolled students of the five PhD courses[7] offered by this institution. This seems to confirm the relevance of Tourism as a strong area of specialization for the Geography institutions. Finally, the course in Urban Planning is associated with departments from other scientific

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[7] Several of these PhD courses are organized in collaboration with other schools, mostly from the Universidade de Lisboa but also from other institutions.
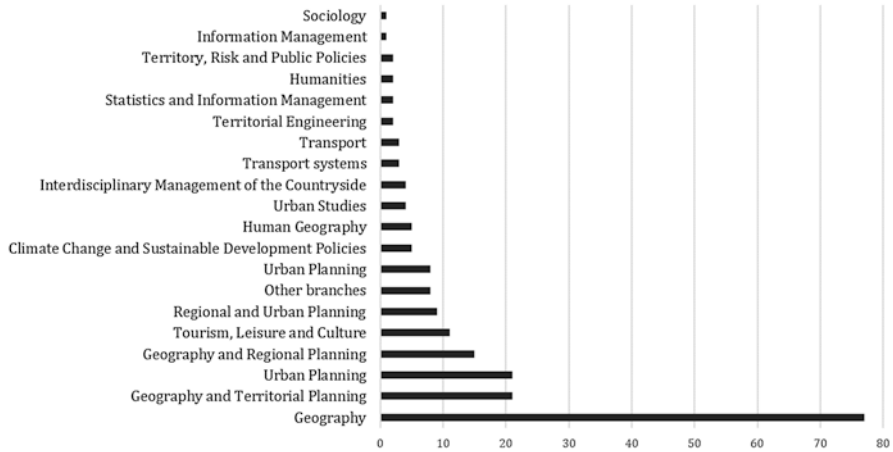
Fig. 2.5 Number of doctorates by course (2000/2001 – First Semester of 2018). (Reproduced from RENATES)

areas, present at the Universidade Lusófona of Humanities and Technology and the Universidade de Lisboa (Faculty of Architecture and Instituto Superior Técnico).[8]

A doctorate in Geography may consider a specialization in Human Geography (registering 29.4% of the cases), even though a significant number of theses (26.5%) do not have any associated specialization (Fig. 2.6). All the other specializations are less significant: Planning and Spatial Organization, Town Planning, New Technology in Geography, Spatial Planning and Management, Spatial Organization, Regional and Town Planning, Tourism and Development, Remote Sensing and Geographic Information Systems and Heritage and Culture.

Regarding research subjects, the titles of doctoral theses within the domains of Social and Economic Geography clearly show a dominance of the preoccupations with development, tourism and issues related to cities and urban areas. The most common words in the titles are territory, planning, space, geography and management. References to specific places are also prominent, especially Lisbon.

Throughout our century, we can observe some changes in dominating concepts, considering the words expressed in the titles of the doctoral theses (Figs. 2.7 and 2.8). In fact, 'Portugal' and 'case' (case study) remain amongst the most common words. However, between 2000 and 2005, studies associated with spatial planning and development dominate, with particular significance on references to urban planning, rurality and the environment. Meanwhile, for the other period, words like city and culture and references to specific places signal an increase in the number of metropolitan studies and research on the city of Porto. From 2012 onwards, the period with the greatest number of completed doctoral theses, the themes diversify,

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[8] Until 2012/2013, these schools (Faculty of Architecture and Instituto Superior Técnico) were part of Universidade Técnica de Lisboa. In this school year, Universidade Técnica de Lisboa (UTL) and the 'old' Universidade de Lisboa (UL) merged into the present Universidade de Lisboa (ULisboa).
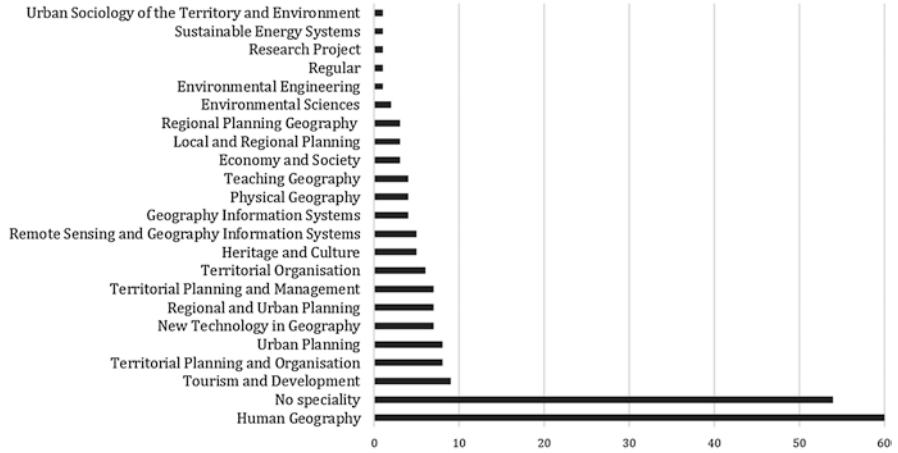
Fig. 2.6 Number of doctorates by specialization area (2000/2001 – First Semester of 2018). (Reproduced from RENATES)

Fig. 2.7 Words from the titles of doctoral theses on Economic and Social Geography (2000/2001 – First Semester of 2018). (Reproduced from RENATE)

Fig. 2.8 Words from the titles of doctoral theses in Economic and Social Geography (2000–2005; 2006–2011; 2012 – First Semester of 2018). (Reproduced from RENATES)

as tourism gains ground, followed by studies on Lisbon, town management and even research focused on Brazil or comparative study cases involving Brazilian realities. This cannot be dissociated from the growing presence of Brazilian doctorate students in Portuguese universities.

The analysis of the titles of doctoral theses was complemented by the analysis of the titles of articles published in the two most important academic journals of current Portuguese Geography: *Finisterra*, created in 1966 and edited by the Centre of Geographic Studies[9] of the Institute of Geography and Spatial Planning at the Universidade de Lisboa, and *GOT – Journal of Geography and Spatial Planning*, published since 2012 by the Centre of Studies on Geography and Spatial Planning

[9]Alcoforado et al. published the *Biografia de Uma Revista de Geografia (1966–2015)* in 2015, which is an article outlining the profile of the magazine created 50 years before by Orlando Ribeiro, Suzanne Daveau and Ilídio do Amaral. See also the article by Amaral (2001) about the first 35 years of the magazine.

Fig. 2.9 Words from the titles of articles about Human Geography, Territorial Organization and similar areas (2008–2017). (Reproduced from *Finisterra*)

Fig. 2.10 Words from the titles of all articles published between 2012 and 2017 in *GOT – Journal of Geography and Spatial Planning*

(CEGOT), gathering researchers from the universities of Coimbra, Minho and Porto (Figs. 2.9 and 2.10).

The titles from 2007 to 2017 (*Finisterra*) and 2012 to 2017 (*GOT*) show the existence of elements that are in line with what was identified in the analysis of the titles of the most recent doctoral theses. Cities and 'urban issues'[10] deserve a great deal of attention. In *Finisterra*'s case, there is a dominance of references to Lisbon.

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[10]Visible in the relevance of the words *cidade-ciudad-city* and *urbano-urbana-urban* and also in the names of some cities, namely, Lisbon, Barcelona or Porto.

'Territorial/territory' may give indications of a move away from the spatial visions inherited from the idea of regional development related to the principles of spatial science. The use of the term 'Brazil', especially evident in the case of *GOT*, must also be highlighted as it demonstrates the recent reinforcement of the relationship between Portuguese and Brazilian geographies.

The journal *GOT* clearly highlights the importance of this process of internationalization (more than 50% of the articles are from foreign authors), with Brazilians standing out and contributing to more than 30% of the published articles. Furthermore, a reduction in the 'inbreeding' of Portuguese magazines is well illustrated by the evolution of authors of articles published in *Finisterra*, with texts by researchers from the Centre of Geographic Studies (in Lisbon), which constituted over 30% of the total from 1986 to 1995, falling to just 13% in 2017. Finally, the significant number of words in English (e.g. *land*, *plan*, *policy*, *city*, *perception*, *territory*, *analysis* and even *Lisbon*) present in the titles of articles published in *Finisterra* (Fig. 2.9) highlights a component of the internationalization strategy: in addition to the growth in the number of foreign authors writing in English in the journal, many Portuguese researchers are currently communicating in this language in order to broaden their potential audience. This is in contrast with what happens at *GOT*, where Portuguese is dominant and a good number of Brazilian geographers find therein a privileged space to expose the results of their research internationally.

2.5   Politics, Policies, Planning and Organizations: Geography Out of School

Geographers enjoy considerable professional recognition in Portugal, but it is not easy to evaluate its evolution or to compare with what is happening in other Mediterranean or non-Mediterranean countries. In addition, it is important to consider that the social relevance of Geography is directly or indirectly associated with universities and with the visibility of certain professors-researchers who often give important contributions to policy-making and spatial planning instruments. However, the role played by many geographers working in local and national administrative bodies is increasingly relevant in growing the visibility of Geography and bringing the discipline closer to the population.

After the 1980s, Jorge Gaspar emerges as the main geographer in the relationship between Geography, politics and planning at a regional and national scale. He played a crucial role as the author of several studies influencing the design of regional policies in Portugal and, some years later, as the coordinator of the team responsible for the technical proposal of PNPOT, the National Programme for Spatial Planning Policies, which was approved when another geographer, João Ferrão, became the Secretary of State. In addition, he had significant presence in the media in relation to important and controversial public decisions, such as the

location of the new Lisbon airport (yet to be built!) or the high-speed train line. He was very relevant to planning within the framework of New Geography. João Ferrão was also central, introducing strategic planning (at the local, regional and national level) and collaborative planning, with pioneering experiences in Lisbon and Évora in the 1990s, involving participatory processes of governance and promoting debates on cutting-edge themes and good practices on urban and regional public policies. As the Secretary of State for Spatial Planning and Cities (2005–2009), he was responsible for launching the POLIS XXI policy, marked by partnerships for urban regeneration that developed integrated projects for the improvement of old and problematic areas in a good number of Portuguese cities. Another geographer succeeded him as Secretary of State, Fernanda do Carmo, who is currently the General Director for Territory (where she succeeded another geographer, Rui Alves), having launched and approved the recent amendment of PNPOT (July 2018), with geographer Teresa Sá Marques as scientific coordinator.

In politics, several other geographers have occupied relevant positions in national, regional and local public bodies (e.g. Célia Ramos, vice-president of the Commission for Regional Coordination and Development of the North of Portugal and formerly Secretary of State for Nature Conservation and Spatial Planning, or Hortênsia Menino, mayor of the municipality of Montemor-o-Novo, to mention just two cases at different public administration levels).

Meanwhile, several geographers hold a presence in the media, including national television, radio and newspapers, besides being prominent academics or practitioners, contributing alongside many others to bring Geography greater recognition in the Portuguese society, highlighting its role in several areas, mainly related to regional and urban development, strategic and municipal land-use plans and projects and scientific and applied research.

Moreover, we must also mention, especially in recent years, the growth of professionals in consulting firms that operate in the fields of spatial planning, environment, risks, well-being, urban planning, cartography and remote detection that have also spread the visibility of Geography. In some cases, geographers are the founders or managers of these companies, in a process that has had a remarkable increase and broadened the scope of intervention.

The three existing national Geography organizations have also played a key role in promoting the visibility and social relevance of Portuguese Geography.

The National Geography Commission (CNG) is the oldest association of geographers, deriving from the creation of a structure designed to promote an international meeting in Portugal back in 1947. It took place in Lisbon and contributed to the projection of Orlando Ribeiro and several European geographers (mostly Italian, French and German) that became references in the study of Geography in Portugal. In accordance with its statutes, it groups all the doctorates in Portugal. Nowadays, it has minimal recognition, given that the institution began to lose relevance as the number of doctors increased and CNG was no longer restricted to university professors. Even so, CNG was responsible for organizing the International Meeting of the International Geography Union in Lisbon, in the same year as Expo '98.

There are two other associations, both founded in 1987, the Geography Teachers' Association and the Portuguese Association of Geographers. Both develop relevant activities in the promotion of Geography and geographers, often implementing joint initiatives, such as the Geography Olympics.

The Portuguese Association of Geographers (APGeo) has been chaired (for 2-year periods and a maximum of two mandates) by academics and planning professionals.[11] Its current president is José Alberto Rio Fernandes, a full professor from the Universidade do Porto. APGeo has protocols with different professional associations (architects, landscape architects, engineers and town planners) aimed at promoting a territorial stance in national policies and has strengthened its influence in fields like cadastral survey, fire prevention, territorial administration reform, spatial planning, regional development and geographical education. It gives prizes to the best doctoral theses and master's dissertations and to the best Geography students. It promotes field trips as a learning tool and edits the *Geography and Geographers* collection, which includes books of prestigious Portuguese geographers. Every other year, it organizes the Iberian Geography Conference (together with the Spanish Association of Geographers and a Portuguese or a Spanish university), alternating with the Portuguese Geography Congress (in association with one of the universities offering a degree in Geography). APGeo is often invited to analyse and discuss technical projects of national interest. It is also accredited for training and organizes or co-organizes activities such as the 'Eurogeonight', the 'Geography Professionals' debates and the 'Learning in the Street' short courses. APGeo shares, with CNG, the responsibility to represent Portuguese Geography in the International Geographical Union.

The Geography Teachers' Association (A Prof Geo) was created after the first National Meeting for Geography Teachers. Its first president was Conceição Coelho Ferreira, followed by Emília Sande Lemos in 1994 who chaired the association until 2018, when Ana Cristina Câmara was elected. It has an accredited training centre for teachers, the 'Orlando Ribeiro Teacher Training Centre', and it organizes training meetings and debates for large groups, such as the Annual National Meeting and the Iberian Congress for Geography Teaching. It edits the biannual magazine *APOGEO*. Its actions in the Ministry of Education stand out, especially close to the Director General of Education, in monitoring different educational reforms, geography syllabuses and national exams.

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[11] Since its formation, the role of academics and professionals has been crucial. For instance, the leader of the Installation Committee that preceded and created the conditions for the settlement of the formal APGeo, was José Carlos Pinto, a respected and well-recognized planning professional, and the first elected president was Teresa Barata Salgueiro (1992), a professor at the Universidade de Lisboa.

2.6 Links, Paths and Challenges

Europe and America are the most privileged continents in terms of research cooperation. From Europe and the USA, some academics have been particularly influential since the turn towards the 'New Geography', some of them having taught or researched in Portugal. As geographers from the Anglo-Saxon world (e.g. Allan Williams, Peter Gould, Christopher Jensen-Butler) were important in this process, the links with the Mediterranean world remained strong, particularly with Spanish geographers (e.g. Horacio Capel, Carles Carreras, Isabel Pujadas, Maria Dolors Garcia-Ramon, Lorenzo Lopez Trigal, Oriol Nel.lo, Ricardo Mendez, Ruben Lois, to mention just a few) and Spanish institutions and also with Portuguese-speaking French, Swiss and German geographers (such as François Guichard, Philippe Roudié, Antoine Bailly and Bodo Freund). Regarding South America, the recent growing importance of Brazil is very clear, involving the co-organization of – and participation in – scientific meetings, supervision of theses, post-doctoral research and joint research projects.

Following the presence of Milton Santos at the 1998 IGU Lisbon Meeting and Mauricio Abreu at the 1999 conference in Porto, a considerable number of well-known Brazilian researchers have both collaborated in projects and spoken at conferences in Portugal.

There are several international projects coordinated by Portuguese geographers, with European and national financial support from both the private and public sectors. Considering the high number of Portuguese, Spanish and Brazilian authors involved, the Dictionary of Applied Geography deserves a special mention, edited in both paper and digital formats, in both Spanish (López Trigal et al. 2015) and Portuguese (Fernandes et al. 2016).

That said, the current Portuguese Geography is globally characterized by an Anglo-Saxon rationale, and research is strongly conditioned by the mainstream European and national rules of public funding. The principles of competition and productivity are imposed, in order to promote publishing in prominent magazines, with the consequent devaluation of books and chapters. For many, this is the acceptable evolution from the previous 'relaxed system', when teaching activities were central, and a PhD thesis had to consist of over 500 pages. Furthermore, up until the 1980s, evaluation was basically a personal matter; with so few geographers at graduate and postgraduate level, it could easily be done by seniors as everyone knew everyone. However, the contemporary competitive system is showing its limits, with the settlement of 'production mills' that do not necessarily underline the quality of the best works and also may not create the best research atmosphere for investigators who can co-author more than a dozen articles a year without having any professional stability. The advantage of being part of the Anglo-Saxon system is also clear from the preponderance of major international publishers (mostly British or North American) and the financial imbalance between the main research centres and peripheral units.

Having this situation of Geography in education, and also the professional possibilities of the geographers in mind, we look back at the special issue of *Inforgeo*, published on the 25th anniversary of the Portuguese Geographers Association (Ferrão and Julião 2013) to say a few words about the future of Portuguese Geography.

Testimonies from the 'inside' and 'outside' of Geography revealed something in common: the permanent anxiety with Geography and the recognition of geographers' roles, regardless of the initiating institutions, and the vision (technical or scientific) that their precursors teach or taught. Accepting scientific concerns as those focused on territory, in nature and in society and eventually, even more so, in the inseparable multiscale relations, Geography seems to have a greater challenge in the near future: deeply reflecting on and responding efficiently to the stimuli triggered by fast societal challenges, including the impacts of environmental changes in populations and territories. It is these stimuli and the changes in the ways in which politics and politicians are looking at the organization and dynamics of the world which seem to force us to rethink Geography as a whole, as well as the ways to be a geographer. Reflecting on territory will involve the reinforcement, within its research and teaching agenda, of convergent topics such as the environment, health, safety, migrations, tourism and the impact of virtual spaces and flows via technology, or themes driven by 'old paradigms' recovered by the needs of the present, such as spatial justice, circular economy and sustainability.

Yet, reflecting on territory means that agendas must be met, starting with the dilution of intra- and interdisciplinary organization and institutional difficulties, if we aim to be geographers of 'everything', in the sense that the complexity sciences attribute to it. Reflecting on territories cannot eschew specialization. The production of scientific knowledge in Geography demands the global completion of territorial interpretation patterns based on the examination of many nonlinear causes; making a thorough observation and critical analysis of the consequences that are often the result of the 'speed of time' of political decisions; creating strategic thoughts that include the dynamic of actors; measuring facts and phenomena with the precision that appropriately responds to the highest quality standards, be it with regard to statistics, cartography, enquiries or geography information systems; internalizing the geographic modelling and computational simulation into the territorial management instruments (Tenedório et al. 2016), amongst other processes of creating future situations.

We may well raise the question of whether we are about to witness a thematic, methodological, theoretical framework fragmentation, as has indeed systematically happened, which could lead to the irrelevance of the discipline. We do not believe so. Firstly, because the apparent thematic fragmentation, perhaps translated into the emergence of new disciplinary topics, is specific to frontier research: even in social sciences, which works more on the critical reflection of the consequences of policies than on future solutions. The corresponding specialization and delusional thematic 'atomization' can be compensated by the integral vision that characterizes Geography, if the proof of evidence of the 'extended' time of its history is accepted. Secondly, regarding methods and theoretical framework(s), nothing indicates that

the former cease to be recreated in the face of scientific and technological evolution and the latter in the face of criticism of the dominating paradigms and doctrines. Science is about questioning and challenging the existing answers, which in the case of Human Geography have space and place (in *latu* sensu) as a key focus.

Responding efficiently to the stimulus triggered by societal challenges is one of the main challenges for Geography. Nowadays, in Europe, including Portugal, collaboration is referred to as an efficient method of creating value and creativity almost as a synonym of a driving force of innovation. Also, the safeguard of fundamental and theoretical research in the context of reduced independence of universities requires more cooperation, which could surpass national borders, as well as the creation of new cooperative spaces around common problems and shared goals.

Another important challenge is related to Open Science and how it will become widespread and shared amongst the scientific community, society and companies: data, programmes, methods and reviews, as well as publications and educational resources. This concept of Open Science grasps collaborative and articulated research between colleagues on a network, supported by the huge progress of a piece of infrastructure which revolutionizes the way in which we work: the Internet. At the same time, issues concerning alternative intellectual property, reusage of research methods and redistribution and reproduction are being discussed, as well as the hegemony of the English language in scientific communication and its impact (Meadows et al. 2016).

Finally, it should be noted that policy options are related to research finance that is justified within the framework of the United Nations 17 Sustainable Development Goals of the 2030 Agenda. In this context, it seems that future geographers will be favoured if they have the necessary holistic vision that has characterized their activity, and Geography will have to theoretically, conceptually and methodologically focus on education, research and supporting social transformation, in the 'territory-nature-society' nexus, increasing the necessary specializations, disciplinary dialogues and national and international collaboration and projection, as well as efficiency measures.

The qualification of geographers in view of this double ambition for Geography, that of being holistic and providing proof of specialized knowledge, is the greatest of the challenges, at least in Portugal. It is true that in certain circumstances, many experts (architects, civil engineers, sociologists, anthropologists, economists, geologists and many others) have the need to look at reality as if they were geographers. This is not what makes them geographers. This also happens with geographers when they look at territories as a product of action from the markets, the economy, society or engineering. This does not make us economists, sociologists or engineers. What is important to highlight is that the problems resulting from the 'territory-nature-society' nexus require experts and generalists to analyse, interpret and understand the world (at all its scales), on the different geographic levels, to make a sound diagnosis and to propose improvements, changes and transition paths. The idea that guides scientific research nowadays through the various themes demands research collaboration of generalists and specialists, not with knowledge in silos, but rather with intercommunication systems that optimize the proposals. For this

communication, as well as for the communication between multi-thematic experts and society, geographers will be increasingly required. After the triumph of the *super specialist*, it seems the future may be more favourable for the *generalist-specialist*, especially if he or she has other abilities, with data management and communication high on the agenda.

2.7   Towards a Southern Europe or a Mediterranean Geography?

Is it meaningful to talk about a Geography of Southern Europe or even of the Mediterranean? The relevant ideas in Portugal, as in any other peripheral country, have always been mainly influenced by the most developed, and principally more central, countries. From this perspective, the succession of paradigms and themes in Portuguese Human Geography reflects broader subordination relationships of a political, cultural and economic nature. It is this dependence that allows us to understand the influence, both mainstream and secondary, from Germany and particularly France, and since the 1970s from the Anglo-Saxon countries, on Portuguese Geography.

In this context, relations between peripheral countries tend to be weak except when reasons of historical or geographical proximity enable the persistence of contacts facilitated by the same (or identical) languages and cultures. This is the case, for example, of relations between Portuguese and Spanish, and later Brazilian, geographers, based on personal and institutional contacts. There are, however, cyclical exceptions. For example, in the 1980s and 1990s, several Italian authors developed the concept of *Third Italy*, associated with the importance of diffuse industrialization and urbanization processes, which had a relevant impact on many studies in Southern Europe and even in Maghreb countries. In the 1990s, benefitting from the push given by the English geographer Russell King, several studies on migration and tourism in the Mediterranean Basin were also developed. More recently, with the financial crisis that began in 2008, a number of comparative studies on crisis, austerity, social inequalities, uneven development and housing in Southern European countries have emerged, particularly those most affected by the intervention of the Troika (International Monetary Fund, European Central Bank and European Commission): Greece, Portugal and, to a lesser extent, Spain.

Finally, the so-called Arab Spring, which began symbolically in late 2010 with the immolation of a young Tunisian in the name of better living conditions in the country, but which quickly spread to various Arab countries in North Africa, has contributed to bringing closer various academics from both shores of the Mediterranean Basin. Interestingly, the aforementioned examples show that Southern Europe or the Mediterranean has emerged more as a subject of study in the framework of global processes or personal initiatives by authors from North and Central European countries than as a result of efforts by geographers and institutions from those regions. Seminal works such as those of French historian Fernand

Braudel (1966) or Portuguese geographer Orlando Ribeiro (1968) on the Mediterranean remain to be updated.

In addition, Southern Europe and especially the Mediterranean, in their unity and diversity, justify more exchanges of geographers (students, teachers and research- ers), more programs to support scientific cooperation, more joint research, more cross-comparative studies and more shared reference works. It is true that the geog- raphy of each of the countries has a particular history, the result of the intersection of external influences and internal specificities. But these national geographies tend to reproduce ideas and paradigms from central countries, in a context of postcolo- nial dependence relations (such as the Maghreb countries in relation to France) or of increasing subordination to the globalization processes of those ideas and paradigms.

The recent approach and the shared exchange between the Brazilian and Portuguese geographies shows that there is no determinism relating to the structural dependence of the national geographies of Southern Europe and the Southern Margin of the Mediterranean on the geographies of the central countries. Above all, it shows that closer and more regular cooperation between geographers, higher edu- cation centres and research institutions in the various Mediterranean countries can allow the emergence of new ideas and perhaps new paradigms, which will enrich not only the geographies of this world region but also global geographical knowl- edge. The impacts of climate change, rehabilitation and touristification of urban historical centres and China's new silk route are just three examples that show the usefulness of this more integrated knowledge of the Mediterranean Basin, both internally and in its relations with other areas of the world. Geographers in Southern European countries and especially in the Mediterranean should not be indifferent to this call.

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Chapter 3
Spanish Geographical Thought in the Present: Its Influence and Original Proposals in a Context Dominated by Tradition

Rubén C. Lois-González

Abstract Geography in Spain lives a period of crossroads and contrasts. In fact, its remarkable academic consolidation and presence in many universities with their own degree collides with a modest number of students. This deficient popular visibility of Geography does not influence the consolidation of a prestigious group of spatial and territorial analysis professionals, articulated by the Board of Geographers. The high consideration of the highly competitive masters, doctorates and research groups led by geographers throughout the country is neither a limit. In this chapter, the causes of these singular characteristics of the Spanish geographical discipline will be analysed. It is a classic discipline that benefited, along with history, from its official support in times of the Franco regime and that, nevertheless, managed to maintain an unquestionable academic profile. In democracy this discipline reflects certain thematic and academic conservatism in the university and in its congresses, but that at the same time has developed a strong component applied in urbanism, environment and territorial development. All these attributes of an original geographical school in Mediterranean Europe are analysed throughout the following pages, in a work loaded with nuances and quotations that aim to spread the legacy (and insufficiencies) of spatial analysis in present-day Spain.

Keywords Geographical thinking · Spatial planning · Academic knowledge · Regional and local dimension · Professional Geography

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3.1   Introduction

Among the countries of Southern Europe, Spain or the Spanish State, as many of its citizens prefer to say, presents itself as an original territory and society. On the one hand, the construction of a unitary national identity has been much more difficult than that of its neighbours and it can even be said that it has not yet been fully achieved at the beginning of the twenty-first century (Lois 2015; Moreno and Núñez-Seixas 2013). In fact, facing a common historical narrative throughout the nineteenth century (Álvarez Junco 2001), other narratives emerged in parallel that argued for the Catalan, Basque or Galician specificity (Beramendi and Máiz 1991). This evidence, together with the enormous internal diversity of the nation (between an Atlantic north and a majority of Mediterranean regions, the urbanised coast and the interior in demographic decline, the centre and the peripheries, etc.), explains the difficulty of geographically characterising what is regarded as Spanish and, in a special way, formulate an individualisation of its identity. If O. Ribeiro in his classic work "O Mediterráneo e o Atlántico" (Ribeiro 1945) synthesised in a not very extensive essay the fundamental features of Portugal, in Spain a similar work has never been elaborated. Classical Geography has insisted on advancing the study of the land, the climatic diversity, the population, the rural organisation and the urban system of the territory, among other research, and following the most classic regional-landscape French work plan (Gil Olcina and Gómez Mendoza 2001; Méndez and Molinero 1993; Terán and Solé Sabarís 1978; Vilá Valentí and Bosque 1989–1992), but they have not been able to interpret it in a novel way or create a debate regarding Spain as an apprehensible socio-territorial reality (perhaps the only collective attempt in this direction was the work coordinated by Gómez Mendoza, Lois and Nel.lo in 2013). It is in this complex framework that the disciplinary work of Geography is included; a field of knowledge that in Spain has been aligned with the Social Sciences, maintaining an internal division that has resulted in continuous debates and discontent (specialization in three different academic areas, Human Geography, Physical Geography and Regional Geographical Analysis) and linking the studies with those on Territorial Planning in most universities (Libro Blanco del Grado de Geografía 2004).

Our analysis of Geography in Spain in the early stages of the twenty-first century will follow a very simple outline. In the first place, we will analyse the general lines that define the future of the discipline throughout the country. Followed by a second broader chapter that will address the internal weaknesses of Spanish geographic analysis today. Thirdly, and before moving on to the conclusions, we will state what, in our opinion, are the original proposals of the geographical thought that are currently being developed.

3.2 Spanish Geography in the First Two Decades of the Twenty-First Century: General Characteristics

A first attribute of Geography in Spain is its university entrenchment. It is present in practically all public institutions of higher education in the country (approximately 36), in three research institutes dependent on the CSIC (Higher Council for Scientific Research) and in some private universities, academically linked to tourism, humanities studies and environmental sciences (it is estimated that in a variable total, never more than 10, with geographers working in a very individual and isolated way). The number of departments with the word "Geography" in its denomination is high (around 45); and, very particularly, the number of Geography degrees (normally together with Territorial Planning) must be considered high (25 public universities), a volume that is even higher if we include the total number of master's degrees where geographers are responsible for most or a significant part of the subjects taught (Comisión Interuniversitaria 2016; Delgado-Viñas 2016) (Fig. 3.1). This university presence still responds to factors related to the contemporary political history of Spain. In fact, during the Franco era there was an unprecedented expansion of higher education, democratisation and progressive feminisation (Carabaña 1983; Fernández-Enguita 1990; Lerena 1986), which led to the opening of new universities and, especially, the increase in the number of degrees offered in each of them.
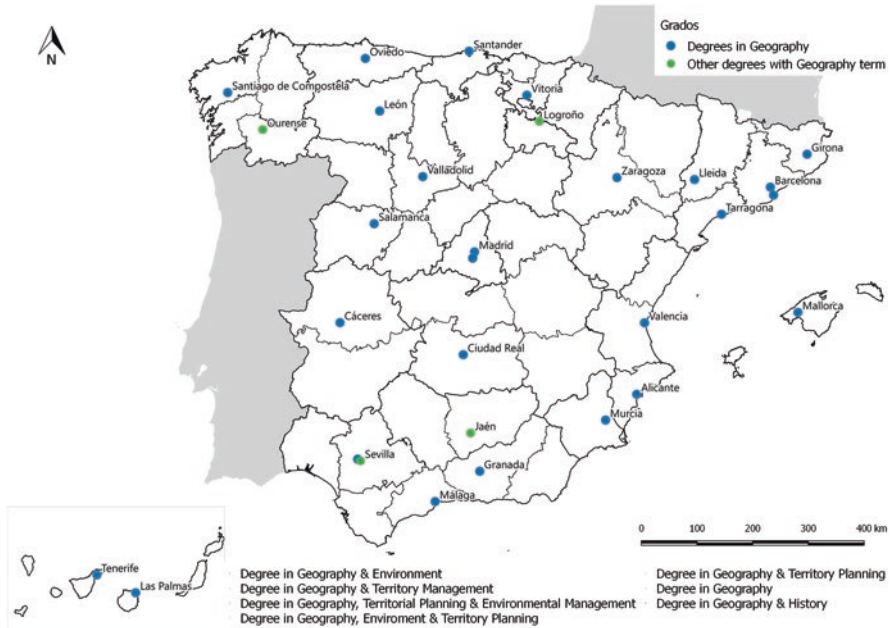
Fig. 3.1 Degrees in geography, geography and territorial management and degrees with other geography terms (own elaboration)

This happened particularly in the 1960s and 1970s, when the Humanities and Social Sciences studies were concentrated in the generic degree of Philosophy and Literature, facing the impossibility of studying some disciplines considered *dangerous* by the Regime such as Sociology, Anthropology and Political Science, which would have a later, and limited, development.

In this context, History and Geography, as work by important figures of the Regime reminds us, had an enormous role at an early stage (Bosque 1982; Capel 1976). The aim was to reaffirm the patriotic spirit through the actions of Spanish people in the past and the knowledge of a map that expressed national unity, only nuanced by land, landscape diversity and diverse traditions interpreted with a strong folkloric bias (García-Álvarez 2013). From these circumstances it is possible to understand that Francoism promoted the higher education studies of Geography and History, together in a university degree or in a common speciality. A university degree was designed to provide teachers for the primary and secondary educational levels. Geography was first of all a *Humanities study*, inextricably linked to History, but secondary to the great classical explanatory discipline of the nation and its avatars in the past (by way of example, the History of Spain by publishing house Alfaguara was introduced by an interesting chapter by professor of Geography, A. Cabo, with the expressive title of "Geographical conditioning" -of the History of Spain) (Cabo 1973). In this context, university professors could focus their research on Geomorphology or on the characterisation of the vegetal landscape, but in schools and high schools, the geographer was a teacher of Geography and History (with mastery of the latter), always close to colleagues that taught Language, Philosophy and even Religion.

3.2.1 The Academic and Professional Consolidation of Geography in Regional and Democratic Spain (1975–2009)

The democratic transition initiated at the end of the 1970s introduced many changes, but it also maintained numerous habits from the previous dictatorial period. Among the novelties, the university became a democratic entity after the approval of the LRU (University Reform Law) in 1983, which enshrined the model of higher education defended by the socialist party, in its strategy of building a Spanish welfare state. With this law, universities regained their autonomy, and students, professors and administrative staff the ability to choose their rulers at different levels. The LRU established the protagonism of the Departments, formed as basic units of teaching and research, and whose professors were individually assigned to scientific areas of knowledge, specific areas of each discipline grouped by a common theme of study and reflection (Luxán-Menéndez 1998; MEC 1988; Muñoz-Jiménez 2001). The approval of this law, marking the start date of the democratisation of the Spanish university, allowed for the consolidation of the majority of the Departments of

Geography that exist at present. Some of them, especially in the more traditional universities, were already established, but lacked solid legal backing. The departments entailed the self-government of all permanent professors, as opposed to the pro-Franco model of hierarchical organisation, where the professors with their associated and assistant personnel organised the teaching and research plans. This change implied a very deep reform in the structures and in the operating habits of the Spanish university. It brought out imbalances, generational revolts and academic-personal disagreements between colleagues (Capel 1976; MEC 1988).

In the majority of the universities of the time, a Geography department began to operate fully; in the most modest institutions or created a few years before, Geography was integrated into departments such as History, Art History and, in a few cases, Engineering, Architecture or Geology. The disagreements between Geography schools, or simply local disputes, caused the division of Geography into two departments in several cases (the Complutense University of Madrid, the University of Barcelona, Seville, Granada and Alicante). For this reality to materialise, the discipline had previously been structured in three areas of knowledge: Physical Geography, Human Geography and Regional Geographic Analysis. The existence of the first one was justifiable, but the differences between Human and Regional Geography have almost always been non-existent, since its members work indiscriminately in rural, urban, population, economic studies, etc., on a local and regional scale, expressing the enormous influence that the Vidalian French school has maintained throughout Spain (Lois et al. 2018; Muñoz-Jiménez 2001). These personal disputes justify that Geography was divided into two departments in all universities, Physical Geography and Regional Geographic analysis in one group, while maintaining a department of Human Geography.

The institutionalisation of Spanish Geography in departments of the mid-1980s continues until the present (Fig. 3.2). This fact is fundamental to understand: firstly, that university geographers appear grouped in units of 10–30 members (some large departments can exceed this number of permanent lecturers); secondly, the consolidation of an offer of Geography studies in approximately 25 universities. Although in the 1980s Geography was integrated into broader degrees, Geography and History or Philosophy and Literature, as a section or a speciality, the situation soon changed and they went on to organise independent studies. The change began in the early 1990s, when the government of Spain tried to adapt the catalogue of university degrees like those of the most important countries of the European Union. From the beginning it was clear that the division of Geography and History was unstoppable and that, in those universities where Philosophy and Literature were being offered, its disappearance opened the door to a wide catalogue of new degrees.

In this case, the geographical community organised several meetings of lecturers from across the nation, an important event although not well remembered, with a high presence of universities, convened by the most representative association of the discipline, the AGE (Association of Spanish Geographers) (AGE 1991, 2001). The expansion of the institutionalised educational system broadened the possibilities of hiring geographers as lecturers and/or researchers at different levels. And, above all, the consolidation of some municipalities and democratic autonomous regions

Legend (map markers):
- Pure departments of Geography
- Geography departments shared with other sciences
- Section or area of Geography included in another department

Department of Geography, Urban Planning & Territorial Planning
Department of Art & Territorial Sciences
Department of Cartographic Engineering, Geodesy & Photogrammetry
Department of Education Sciences, Language, Culture & Arts, & Humanistics
Department of Geography
Department of Geography & Geology
Department of Geography & History
Department of Geography & Sociology
Department of Geography & Territorial Planning
Department of Geography & Territorial Sciences
Department of Geography, History & History of Art
Department of Geography, History & Humanities

Department of Geography, Prehistory & Archeology
Department of Geology, Geography & Environment
Department of Historical Sciences & Geography
Department of History, Geography & Anthropology
Department of History, Geography & Art
Department of History, Geography & Philosophy
Department of Human Sciences (Geography Area)
Department of Humanities
Department of Humanities (Geography Area)
Department of Humanities Geography, Contemporary History & Art
Department of Regional Geographical Analysis & Physical & Human Geography
Geography & History Section

Fig. 3.2 Departments of geography or with the presence of geography and geographers in Spanish universities

increased the possibilities of hiring professionals from our discipline to carry out territorial planning work in urban, supra-local or environmental areas (Lois 2009). For this reason, the decision adopted consisted of offering these new Geography degrees in as many universities as possible. It was a moment of affirmation where, and this is the second option adopted, classical disciplinary was accompanied by explicit training in Territorial Planning. This direct link between geographical knowledge and its applicability through planning at various levels has remained unchanged in the last 25 years.

At the beginning of the 1990s, very few geographers had extensive experience in Planning, and, for this reason, a commission was created by colleagues who had been regional directors of urban planning, or who collaborated in the drafting of urban planning plans, to define the contents of the Geographical Territorial Planning (F. Zoido, A. Campesino, G. Morales and M.A. Troitiño). It established the principles of this field of knowledge, in which many graduates have been trained in Spain over the last few decades. In fact, the strategic option for territorial planning was a success until at least 2007/08, when the economic crisis and its subsequent ending under new parameters led to a profound abandonment or reformulation of planning

practices throughout the country. Until then, Geography had achieved a major presence in the teams responsible for urban, territorial plans and environmental assessments, partly also because architecture or engineering in Spain was more focused on building or creating structures than planning, in a golden era of real estate and a public works bubble (Lois 2009; Lois et al. 2016). With regard to the other contents of the Geography degrees that had been launched since 1992/93, there were few changes. The focus was on approaching Physical Geography (Geomorphology, Climatology, Biogeography, etc.), Human (Economic Geography, Tourism, Population, etc.) or Regional (Geography of Europe, Regional of the world, autonomous region, etc.) contents as part of classic study plans, another pattern that has been maintained with small changes to the present. Among the most significant novelties during the last 25 years of reforms in the university degree of Geography, and in its conversion to undergraduate degree (almost always with Territorial Planning in its denomination), it is worth highlighting the affirmation of the contents in SIG and in thematic cartography in almost all universities. In fact, the employment of many Geography graduates has depended on and continues to depend on their cartographic skills, their versatility in working in multidisciplinary teams and their handling of digitalisation techniques and processing of territorial information (Schools of Geographers 2008, 2013).

Both the application of the LRU and the consolidation of a degree (afterwards undergraduate degree) and the departments have contributed to strengthening the academic institutionalisation of Geography, with an excess of one thousand professionals in the whole of the Spanish university system. From the 1980s until the recent crisis period, most of them enjoyed a stable job, as public officials under their name of professor or tenure lecturer. At the end of the 1990s, the employed doctors were also added, with a stable employment relationship in their respective institutions. In fact, this organisation has facilitated the creation of permanent work teams, with a tendency to conservatism, who have maintained the identity of our discipline with moderate updates, many applied works and little theoretical debate. Professional promotion has been sought, the scientific exchange presented in multiple congresses and the maintenance of a fairly settled academic status. Only in recent times, since the outbreak of the economic crisis of 2008, has this panorama begun to change intensely. Public funds for the university have been cut; permanent staff (including geographers) has been progressively reduced, without the overcoming of the crisis having encouraged a reversal of this situation for now. Generally, in the departments, permanent communities of professors, with a tendency to inbreed, develop their professional work for long and more or less monotonous periods, but effective in terms of the progress of research and knowledge. A repetitive pace is maintained but has been modified in recent years by the entry of a growing number of employed lecturers and young and casual researchers, who have not yet been able to carry out a generational change of structures that have been little altered for almost 40 years.

The group of geographers was created mainly from its academic institutionalisation in the university and in secondary education (Bosque 1982; Capel 1976; Gómez Mendoza 1997). Its historical presence in State institutions has been scarce, being replaced mostly by specialised engineers (in the National Geographic Institute), by

the military (in the Army Geographical Service) and by other professionals with a more technical profile in some specialised services (National Institute of Statistics, National Meteorological Institute, etc.). This would explain that the main geographical associations, first the traditional Royal Geographical Society and then the dynamic Association of Spanish Geographers created in 1975, the year of the death of Franco, had a majority of members with a university and teaching profile. However, with the consolidation of a decentralised territorial model since 1978 and with the democratisation of the municipalities, geographers have reached spaces of influence both on a strictly political level (with regional ministers and directors, mayors and councillors) and on a professional level (controlling some agencies, public bodies and specialised services of regional and local administrations). The presence has been noticeable in urban planning, environment and tourism, but above all in areas related to the management of official cartographic information, the organisation of the territory and local development. This finding has historically ratified the commitment of a united Geography and Territorial Planning in most of the university's offer, and explains the work done by younger colleagues as officials, technicians or employed in all the Autonomous Regions and in a good number of local entities (municipalities, commonwealths, counties, metropolitan areas, etc.), as well as consultants (Lois 2009). A reality that was combined with the strategy of Spanish Geography to seek legal recognition of the profession, an objective that was achieved with the creation of the College of Geographers, through a law passed almost unanimously in the Spanish parliament at the end of the twentieth century (Law 16/1999). Nowadays, the College of Geographers brings together more than 1500 colleagues from all over Spain, the most numerous association of our discipline in the whole country.

3.2.2   The Challenges of the Current Situation: The Impact of the Crisis (2009–2019)

In recent times in Spain, any explanation of the current reality is conditioned by the economic, social and cultural impact that has accompanied the crisis since its outbreak in 2007/08. Thus, an optimistic reading of the situation of Geography studies, although the number of students of the degree was not very high (Lois 2009), has become a permanent problem today. The reports of the AGE and, to a lesser extent, the Societat Catalana de Geografia and the College of Geographers, warn of the lack of continuous enrolment in Geography degrees (www.age.es; www.geografos.org; http://scg.iet.cat), even when the actual number of students has stabilised in the last few years. The Geography and Territorial Planning degree has lost some interest in a territory where territorial planning has been much questioned in the crisis and the post-crisis periods, and in which there has been an explosion in the number of new university degrees (Oriental studies, Globalisation, Cultural and Heritage Management, International Relations, Landscape, etc.). Therefore, the most

classical fields of knowledge, among them Geography, are presented as less attractive compared to other references that in principle are more appealing to 17-, 18- or 19-year-olds. In addition, the teaching of Geography in Secondary School and Baccalaureate has been neglected by the most important associations of the discipline, expressing the traditional disinterest of both university students and professionals in the world of children and adolescents education. This situation has begun to be reversed with the creation of permanent didactic seminars in some university departments, Geography didactic events and awareness campaigns in high schools. The foundations are being laid for reversing this least seductive image of Geography as a compulsory discipline in primary and secondary education (Buzo 2013). New innovative teaching proposals are tested, such as the Proxecto Terra in Galicia; (Proxecto Terra 2003–2018) and, quite possibly, all these efforts will end up getting Geography university studies to increase its enrolments and its attractiveness for young people. For this process to be completed in Spain, it has been proposed that the AGE and the College of Geographers assist in defining the school content of Geography before the state government and regional governments, although it would also be necessary to have a powerful teachers' association of the subject in schools and high schools as in Portugal, France or Italy.

The low numbers in the initial recruitment of students of the Geography and Territorial Planning degree is progressively corrected in the higher educational and training levels. In fact, master's degrees in Geography, Cartography, Environment or Tourism, among others where geographers actively participate allow a good number of postgraduates to be trained in spatial and territorial analysis. Also, at a PhD level, many departments are filled with environmentalists, architects, graduates in political science or economists who end up joining our scientific community. Therefore, in Spanish Geography there is a particular phenomenon as a result of the existence of a small base of students, which afterwards does not decrease and continues with a significant number of postgraduate and PhD students. However, this translates into less popular and teaching prestige in our discipline, as opposed to a notable research consideration at scientific levels of excellence.

At a Spanish level, the most popular university Geography degrees reach more than 80 or 100 students in the first year, but in some cases (inland universities or modest provincial capitals) the figure may not reach 20, which puts its continuity in danger (AGE 2018a, b). On the contrary, in terms of masters and doctoral theses, several dozens a year are defended, with results in all departments and with a volume that has recently increased.

In relation to this peculiar configuration of Spanish university Geography, an old and unhelpful decision (1984) has structured Geography in three areas of knowledge, the aforementioned Physical Geography, Human Geography and Regional Geographic Analysis. In principle, this decision occurred as a result of personal and scientific disagreements in large departments around the country. If a disciplinary group went to Human Geography, the one confronted with it would go to Regional Geographic Analysis, and the problem was solved. This explained processes that took place in universities as important as the Complutense of Madrid, Barcelona, Seville or Alicante, to cite several examples. Another reason was not to leave a

Physical Geography, as a minority and biased towards Geomorphology, with half of the formal representation of the discipline; one third responded more to the internal reality of Spanish Geography. In a complementary way, and this has been explained by some of those responsible for the decision, it could be expected that at least each area of knowledge would have a professor, so all the Spanish departments would start initially with three professors each.

However, as many colleagues agree on, the disadvantages of this division have been numerous. In the first place, an artificial division between Human Geography and Regional Geographic Analysis has been maintained when all its members cultivate similar themes. In these cases, the division has weakened Geography, which in certain contexts has been forced to discern what lecturers had to teach one subject or a very similar one, according to circumstantial agreements in the departments. Different disciplines close to Geography such as Sociology, Political Science, Applied Economics or Geology have chosen to be structured in a single area with internally differentiated contents, which has allowed them to maintain their strength and external recognition, without their different branches and specialisations having disappeared. In addition, new areas of renewed geographical knowledge, such as GIS, Territorial Planning or Landscape, do not correspond to any particular area and have sometimes been distributed in bureaucratic processes of rebalancing between them. Spanish Geography has always, through organisations as powerful as AGE or the College of Geographers, claimed a unique and visible science towards the outside, and the university division in areas has been contradictory with this reading markedly unitary. It has even caused a certain drift of Physical Geography, from part of its cultivators, towards Earth Sciences away from what should be a discipline in Social Sciences. In fact, in Physical Geography the differentiation between those academics who assume the anthropocene concept and the integration of the natural and the human, with others who have remarkably come nearer to the Edaphology and Geology in their works, is palpable (Grimalt et al. 2013; Lasanta and García Ruíz 2013; Romero et al. 2013).

Faced with that existing gap in university Geography, which seems to have diminished in recent times (the reunification of the departments of the Complutense of Madrid and Barcelona is a good example of this), the discipline has shown its power in organisational terms, fundamentally thanks to the Association of Spanish Geographers (AGE), with a thousand partners, which has been singled out for its public defence of science, the organisation of large biannual conferences, its support for manifestos on the new culture of the territory (AGE 2006, 2018a, b), and the publication of one of the most prestigious Geography journals in Spanish (the AGE Bulletin, or BAGE). AGE is the symbol of the new academic Geography consolidated in the democratic period. Its moral authority is indisputable; and it acts as a spokesman for the discipline in the orientation of research, the organisation of university education, didactic recommendations for the contents of secondary education or the defence of a sustainable and respectful treatment of the territory in its different levels. AGE has also been instrumental in promoting the professionalisation of young graduates. It encouraged the constitution of a management commission of the College of Geographers, which was achieved in 1999. Since then the

professional exercise in urban planning, environmental assessment, treatment of the SIGs or remote sensing, among others, has been regulated and protected. The College is, as mentioned, the geographical society with the most registered members, a figure greater than 1500. It has a strong presence among young graduates, who take advantage of the announcements about job offers, benefit from their legal action when geographers are excluded from public employment offers and also seek their advice on how much they should charge for the provision of different professional services. The College of Geographers has responded efficiently to the challenge of defending the external work of graduates, also making periodic reports on the application of Geography (Colegio de Geógrafos 2008, 2013), and acting in full coordination with the AGE in the public defence and the external promotion of the discipline.

Finally, the world of Spanish geographical associationism is completed with two other groups, which must be mentioned briefly. The first is the Catalan Geography Society (SCG), founded in the 1930s and which survived the Franco dictatorship framed in the culturally based Catalanism. The Societat, a member of the Institut d'Estudis Catalans, has more than 400 members and partners, and combines academic activities (promotion of research and coordination of university geographers), with dissemination tasks such as the promotion of hiking or organising large annual trips. Catalonia is the territory with the greatest social presence of Geography, and despite the recent political tensions with Madrid, AGE and SCG maintain a close collaborating relationship. Finally, the oldest and most traditional association is the Royal Geographic Society (heir of the Madrid Geographic Society of the nineteenth century), established mainly in the capital of Spain and jointly represents with the AGE the Spanish Committee of the IGU.

To finish this broad section focused on presenting the situation of Spanish Geography, a final note is made referring to two issues addressed in the previous paragraphs. On the one hand, how is the process of professionalisation of the graduates of the discipline advancing? On the other, what level of competence is shown in research? Regarding the first question, the answer is simple, the possibilities of employment of the geographers have been regained after the end of the crisis, as of 2014. The report that the College of Geographers will elaborate on this issue in 2018 (every 5 years) is still pending, but it is evident that work has been done on territorial planning, environmental studies, GIS and other spatial information techniques, although the planning keeps a certain decline that only gradually begins to be overcome. We have returned to the traditional places of geographical employment, and new hiring opportunities are expected in public employment offers (in education, as officials of Autonomous Regions, municipalities, etc.), although the depth of the recession and the adoption of tough spending control measures are accompanied by a general worsening of the situation of workers, including those with university degrees, in relation to what happened before the beginning of the crisis in 2008.

If we focus on research, the picture is quite similar. Some of the calls and funds missing in the acute phase of the crisis have been recovered, and the possibility of carrying out projects in the field of Geography seems to be revived. In general, the

geographical research for both calls by the central administration of the state and the autonomous regions are clearly framed in the area of Social Sciences. The proximity to Sociology, Political Science and Communication Sciences does not pose any problem, something quite interesting when Geography is located in faculties along with historians or specialists in Humanities, and the proximity with the rest of the Social Sciences only takes place in research institutes, which exist in a few institutions. This happens in Madrid, Barcelona, Santiago de Compostela, Valencia, Seville or Alicante, but it is not that common. Only a part of Physical Geography adheres to Earth Sciences, with geologists and edaphologists. The results of the research are good both in projects funded and in doctoral and postdoctoral candidates being employed. This explains that on many occasions, nuclei of geographers end up attracting Political Science, Environment or Architecture graduates to work with them. Geography shows a competitive profile as a research discipline, although the contrasts between universities and centres in Spain are marked, as exemplified by the distribution of European projects awarded to the discipline, many of which continue to be concentrated in Barcelona or in classic university cities (Olcina and Lois 2013).

3.3   The Internal Weaknesses of Spanish Geography

Throughout the previous pages we have covered some of the main problems faced by Spanish Geography today. Fundamentally there are two: its artificial division in areas of knowledge and the low level of students enrolled in their undergraduate courses. These express the low popularity and the internal division of Geography, without a doubt the main weaknesses that our discipline currently faces in Spain. A set of weaknesses that will be the subject of our analysis in this section, and which we list hereafter. On the one hand, Geography has long been shown as an area of knowledge that is little socially and territorially committed, thereby limiting its capabilities. On the other hand, it has shied away from theoretical-epistemological debates that allowed it to be as interesting as other disciplines close to it and are always central to popular perception, such as Political Science, Environmental Studies or Ecology. Third, because the geographical analysis cultivated from the academy reflects numerous investigative inertias and little interest. These include studying or re-analysing classical issues of the rural world, with predominantly developmental approaches or prone to *modernisation*, or in the field of Geomorphology, interested in learning with repetitive research the dynamic of the Quaternary and the Holocene, forgetting the importance of societies in the transformation of territories or models of ecological analysis much more current. Another problem of geographical analysis cultivated in Spain is a certain submissive attitude towards the regional and local authorities with which we work, reducing the necessary critical perspective that a Social Science needs to progress. Also, when we insist on publishing in journals considered of impact, although this often involves dealing with the same topic in a repetitive way or explaining spatial processes of

very little relevance, but easy to publish. Finally, academic Geography continues to suffer the distant influence of the Franco dictatorship when Geopolitics, Social and Cultural Geographies, or systematic studies on the environmental impact on highly urbanised areas are barely cultivated.

3.3.1 The Persistence of Academic Conservatism

As has been pointed out in numerous works, the French influence, more specifically Vidalian Geography, was decisive throughout the last century in Spain. If in the 1930s, this approach was manifested in a special way in the first regional monographs that were produced in Catalonia (Cassasas 1980; Gómez Mendoza 1997; Nogué 2005; Santaló 1931), in the immediate post-war period this influence was generalised and the French model of geographical studies became the canon of how to carry out good territorial analysis, always prioritising the regional and local scales (Bosque 1982; Arroyo 1987; Mata-Olmo 1987; Lois-González et al. 2018). The reasons for this hegemony are several, but the main ones can be summarised in four points. In the first place, the enormous prestige that Geography produced in France had acquired at this time. In addition, the presence of French geographers in Spain was constant (starting with P. Deffontaines) and the meetings between professionals from the two countries frequent (many of them held in Pyrenean locations or accessible from the border) (Gómez-Mendoza 1997; Mata 1987; Rodríguez-Esteban 1995). To this we must add the idiomatic training of Spanish geographers, usually limited to some knowledge of French, but unfamiliar with other languages. Many French colleagues could also communicate in Spanish which facilitated the contacts. In the third instance, the evident weakening of the influence of German geography after the Second World War. If in the 1930s and early 1940s some prestigious German geographers came to Spain to carry out research, and even in the early years of the war a Spanish delegation went to Germany to participate in an international congress backed by the Nazi regime, this situation changed with the German defeat in 1945, and with the difficulty of language proficiency. The regular connection with some Germanic colleagues occupied in the process of reconstruction of their country and the few Spaniards who had been there was lost; either they became disinterested of it or they disappeared (Bosque 1992; Melón 1951). Finally, the Vidalian regional-landscape approach imposed a desired academic neutrality for territorial analysis. Faced with the attempts of the Franco regime to instrumentalise Geography (together with History) as a fundamental knowledge to train young people in the national spirit (Capel 1976), the aseptic monographs and regional theses that incorporated the complete study of the physical environment and its historical process of humanisation embodied in a particular spatial and landscape organisation, ensured neutral analysis from a distance, well documented and lacking in specific ideological or applied positions (Arroyo 1987; Gómez-Mendoza 1997; Mata 1997). An academic collective of geographers still torn by the consequences of the Civil War (such as J.M. Casas Torres, member of Opus Dei, on the winning side or

M. de Terán, an exponent of a liberal-republican ideology, in the losing side) felt comfortable with studies on the morphology of the territory, the agrarian structures and the secular changes to the land uses, and the description of the ways of life of a Spain still very marked by the rural, the peasant and the agrarian (Lois et al. 2018).

This broad overview that we have just explained for the entire Franco period is perfectly logical and justifiable. However, its current existence in a critical and democratic university context may seem surprising. In fact, the legacy of a long dictatorial period has remained partially in the academic performance of geographic research. In our opinion, the explanation for this reality responds to two causes that end up being complementary. On the one hand, the cultural inertias that can still be maintained over the years in traditional institutions (Pagès 1983). The rectors and deans are elected, labour and representation conflicts arise, but at the same time they do not question the classical research lines cultivated over time. In branches such as Rural Geography, Geomorphology or Regional Studies, the analytical approach has substantially remained: it seeks to prioritise well-documented works, aimed at publications with high impact, that maintain a certain uncritical tone or, at least, moderate its new aspects. At the same time, the internal structure of the departments and research groups, still marked by the contrast between permanent and temporary lecturers, has slowed down the changes. Young lecturers, with an undoubted investigative capacity and refreshing spirit, prefer not to risk initiating new topics or defending alternative approaches before becoming permanent staff (an employed doctor or permanent lecturer). As in the present, this does not happen until they are 40–45 years old (although with the economic recovery the average age can begin to decrease); the transformative proposals are postponed or they never come to fruition. Aging and departmental endogamy in Geography at the Spanish university explain this reality. A reality that did not occur at the end of the 1970s when generational and paradigm clashes were very popular (Capel 1976; Clemente-Cubilas 1982; García-Fernández 1982; Primer Encuentro de Estudiantes de Geografía 1978). However, in the next convulsive stage associated with the recent crisis (2011–2015), university students have taken to the streets to lead the protests, some have jumped into the political sphere (such as P. Iglesias or I. Errejón, leaders of Podemos, who consider themselves political Geographers), academic institutions have supported the protests, but changes in territorial analysis approaches have been minimal (perhaps with the exception of a Congress of Urban Geography held in Madrid which, under the title "Sociedades Rotas. Territorios Incompetos-Broken Societies. Incomplete Territories"). (Grupo de Geografía Urbana de la AGE 2014; Brandis et al. 2016), denounced the effects of the bursting of the housing bubble on the salaried population, public services and the environment).

In a complementary way to what has been pointed out, but strictly epistemological, a geographic research model determined by the classic French regional-landscape canon is still being used, a canon that has undoubtedly been renewed with the introduction of new topics and analysis procedures from English-speaking countries, but which is preserved in the absence of authentic theoretical-methodological debates on how to transform the approaches of the discipline. It is evident that the influence of English geographies has increased exponentially, but

more in regard to the imitation of issues to be addressed, means in which to disseminate research or internal (and conventional) structuring of the works, than with a conscious attempt to promote studies on new ruralities, strengthen social and cultural approaches in Geography, critical methods in research or integrated environmental interpretations of the transformations of the physical environment, among other issues that have not been addressed. In our opinion, the majority reaction of the Spanish geographic community is more subject to fashions, to general research trends learned abroad, than to a genuine permanent debate on how to approach spatial and territorial analysis. Thus, in recent times there has been an emphasis on preparing articles of sufficient quality to be accepted in impact journals, following the classic scheme of introduction, state of the art, methodology, case study, results and conclusions, but books have not been written on how to work the different branches of the discipline at local and regional scales, or how to establish a solid theoretical basis of geographic research in Spain. In this context, the criteria followed by public bodies to evaluate the quality of science results, which prioritise articles and their impact, rather than books and their internal argumentative contributions, have much to do with it. But this has also been influenced by the absence of a genuine theoretical debate in our discipline since the 1980s and the absence in the publishing market, over many decades, of basic renewed manuals on different geographical topics.

This situation of an absence of theoretical debate in our discipline has been ratified, and as previously pointed out, with the consolidation of the democratic regime in Spain. Since the publication a few months after the death of the dictator Franco, of the study of H. Capel on the evolution of Spanish Geography after the Civil War (1936–1939), everything augured an intense epistemological debate in our discipline (Capel 1976). The same occurred with the publication of renovating works in urban Geography (Capel 1981) and especially through the editing, together with foreign colleagues, of texts that introduced the new paradigms that triumphed in the Anglo-Saxon world (Estébanez and Bradshaw 1980; García-Ramón 1985), some novel approaches that were the subject of translation of influential books into Spanish (Harvey 1973, 1977; Haggett 1983, 1988; Lacoste 1977; Maier et al. 1987). The theoretical-methodological debate was maintained until the beginning of the 1980s (in the stage coined "democratic transition" by contemporary historians), and was combined with the creation of the great Spanish association of geographers, which was pro-government and democratic; at the same time that in some centres (especially in Barcelona) a kind of critical Geography was being cultivated (both around Capel at the Universitat de Barcelona and assuming the full Anglo-Saxon tradition at the Universitat Autònoma de Barcelona). A highlight of this process of strong controversy on how to approach geographical knowledge was the holding of the II Iberian Congress of Geography in Lisbon in 1980 (Centro de Estudos Geográficos 1982). A meeting where the paradigmatic and generational clashes became evident, and the constitution of a powerful movement of young geographers and students of Geography, defined the high point of this period. From then on, the disinterest in the theoretical-epistemological and the affirmation of a strong pragmatism in the disciplinary work have been imposed.

It can be said that this change took place in the 1980s, for several linked reasons. The first, as already mentioned, the institutionalisation of a democratic university based on the LRU, which contributed to the employment of many young lecturers, ensuring their job stability, which moderated their critical impetus. The second, the arrival of relevant geographers in the areas of management and planning, especially in the newly constituted autonomous regions (F. Zoido in Andalucía, G. Morales in Asturias, J. Romero and E. Burriel in Valencia, and later A. Precedo in Galicia, etc.), which helps to explain the geographical turn towards Territorial Planning (Lois 2009). The third, the control that powerful professors, but generally of democratic and liberal views, exercised over the AGE, a representative association, focused on the progress of the discipline, but which has almost always shied away from important theoretical debates. Finally, and also pointed out, the weight of academic inertia (we could say of post-Franco culture). The operation of modern departments is allowed, but that prevents them from being centers of live scientific debate. The result of this decade can be followed in an interesting volume prepared by Spanish Geography in 1992, as a contribution to the Congress of the IGU held in Washington (RSG and AGE 1992). In it a detailed review of the contributions of the discipline and its different fields of knowledge between 1970 and 1990 is carried out, predominantly the enumeration of relevant works, in a cumulative discourse that narrates the productive vitality of Geography, but that does not deal with any epistemological or theoretical debate, which disappears from the context of academic work.

This style reappears in two reports promoted by the AGE already in this century. (AGE 2001; Lasanta and Martín-Vide 2013), where it highlights the discipline as both university and applied references, but shying away from any debate or theoretical problem, and of all concrete allusion to debates of paradigms and epistemological approaches of Geography. In summary, Geography conducts studies, illustrates territorial planning and develops different lines of analysis but never opens forums or enters into internal controversies about the function, the critical or normative talent of territorial knowledge as a practice subjected to specific socio-academic dynamics. In fact, the theoretical or historical issues of geographic knowledge were delegated to great, unquestionable works (although they did not coincide in their central argument), which important Spanish authors made punctually to deal with these issues. The first of these central books and perhaps the most influential took the title "Geography and Science in Contemporary Geography" and was written by the great precursor of epistemological debates in those years, H. Capel (1981). In it, Kuhn's interpretations of paradigm shifts in knowledge and scientific revolutions were translated (Kuhn 1962). In addition, in the substitution of one paradigm for another, a primary historicism/positivism opposition was staged, and the Geography trends, followed for two hundred years worldwide, were studied without any allusion to the Spanish case. A few months later, three geographers from Madrid prepared an interesting anthology of texts from Geography, also worldwide, in the work "El pensamiento geográfico" (Gómez-Mendoza et al. 1982). Much more recently, another Spanish author, J. Ortega Valcárcel, has written a third book on the history and knowledge of the discipline which is quite ambitious, as it goes back to

the civilisations of antiquity and to the original sense of the geographical space and the processes of territorialisation, in a volume entitled "Los Horizontes de la Geografía" (Ortega 2000). Again, the reflection is general, and it assumes that in Spain there has not been a theoretical or epistemological debate worth mentioning in the hundreds of pages of this work.

This review of the great works as theoretical compendium prepared by Spanish Geography demonstrates the existence of a taboo, at least since the beginning of the 1980s: the impossibility of referring to internal debates in the country's disciplinary community or the denial that these exist, beyond discrepancies and personal disagreements. An academic collective such as the geographic, with a sense of its numerical weakness and a deep-rooted perception of external threats, eliminates the theoretical-methodological controversies, minimises its critical perspective and always resorts to narrations of progress, evolution towards the present and an increase in the results of its investigations. This is repeated in almost all organised scientific congresses, where there is no room for epistemic debate, except in some meetings of urban geography or of the group of geographical thought of the AGE. But in the first case, except for the 2014 meeting, the response has been very limited and in the second case it is preferred to adopt a historical, generalist perspective, rather than referring to the discipline itself in the present (Ortega et al. 2010; Grupo de Geografía Urbana de la AGE 2014; Brandis et al. 2016).

In recent years the situation has not changed much, although some generational renewal in the leadership of the geographical community might open new perspectives of research and external promotion of the discipline, one more prone to the theoretical debate and the ordered confrontation of ideas. In fact, the generation of geographers born in the 1940s, direct disciples of J.M. Casas Torres, M. de Terán or J. Vilà Valenti, have retired in recent years (H. Capel, J. Ortega-Valcárcel, J. Gómez-Mendoza, Mª.D. García-Ramón, F. Zoido, R Méndez, etc.), and the leadership of the AGE or the presence of strategic committees of the national research plan and the agency for the evaluation of the quality of the university system corresponds to professionals born between the late 1950s and the 1960s. Thus, in some cases the clear position of censorship has remained with respect to any theoretical-epistemological writing of a critical nature, such as the revision of Horacio Capel's work carried out by Rubén Lois (2013). The publication was directly prohibited in the Bulletin of the AGE, by the president of the AGE and its drafting committee and ignored in the bibliographic profile elaborated on the author by Benach et al. (2016), in the form of a book. In this case, his right to be edited, however, was defended by H. Capel himself in the journal of the Geocritica, *Biblio3w* (Lois 2013; Capel 2013). This uncritical tone, which leads to the mythification of certain authors, has translated paradoxically into the publication of an interesting collection of geographical thought in Spanish, coordinated by professors Nuria Bechach and Abel Albet, from the universities of Barcelona and Autònoma de Barcelona, with the name *Espais Critics/Critical Spaces* in Editorial Icaria (2010–2018) (espaiscritucs@gmail.com; @*espaiscritics.org*). In it, more than a dozen books dedicated to great theorists of Geography and urban analysis have been published, in a monographic way, such as those dedicated to E. Soja, D. Massey, R. Peet, F. Indovina, F. Farinelli, N. Smith,

H. Capel, J-P. Garnier, N. Brenner or W. Bunge. The volumes are accurate with an anthology of works by the author, a personal interview with the author and an unpublished text. Here, Spanish Geography (Catalan in particular), addresses the dissemination of critical thinking in the discipline, but from a somewhat mythomanic perspective, it shies away from open debate and confrontation of ideas. Great authors of very specific origins are praised, although Italian geographers and urban planners, those from Barcelona or a French thinker also deserve to be in this kind of symbolic geographic Olympus.

From a novel approach, in our opinion, a group of Spanish geographers has decided to debate the problem of the territorial cohesion of the country, in its different aspects, as a result of the Catalan independence crisis of recent years. This is the self-proclaimed *Grupo de Toledo* that, made up of professors and lecturers with vast experience, met in the historical city of Castile, with a curiously imperial past, to discuss the territorial problems in Spain, its internal diversity and the identity elements. An open forum was the first frank debate on the permanent territorial problem of cohesion of the nation-state, of which the geographers had always shied away. As a result of these conferences, a few months later a book was published (Gómez-Mendoza et al. 2013), which is an exception to the theoretical debate on this specific issue, which has once again been dealt with in depth in Barcelona (with visits to Vic and Manlleu) in the spring of 2018. The *Grupo de Toledo* represents a new commitment by the most official Spanish Geography with contemporary territorial debates, even those subjected to the most bitter political confrontation. The option that links Geography with spatial planning that began in the 1980s continues to some extent. Spanish geographers express their interest in debating and arguing about practical and current issues. In relation to academic theoretical discussions of disciplinary content, these are still missing, with some exceptions (Claval et al. 2018), and the theory of Geography with a strong historical bias remains the stronghold of highly prestigious professionals, without risk of being criticised, that have been documenting the past much better than the present. H. Capel, J Gómez Mendoza and N. Ortega, along with the younger J. García Álvarez, continue to be the leaders in these areas (Capel 2010, 2016; García-Álvarez 2013; García-Álvarez et al. 2013; Gómez-Mendoza 2017; Ortega-Cantero 2016).

3.3.2 The Predominant Themes in the Work of Spanish Geographers

A good method of approaching the issues and views that current Spanish Geography is mostly interested in is to know the affiliation of the members of the disciplinary community to the different working groups in the Association of Spanish Geographers (AGE). For this, we must start from the affirmation that the AGE is the only representative institution of Geography throughout the country. As we have pointed out, this assertion is basically true, although the functioning of the College

of Geographers expresses the marked interest in the organisation of the territory and the professionalisation of the discipline. In addition, in Catalonia the legitimacy of the AGE is shared with the Catalan Geography Society, which combines, in its lines of action, traditional activities and debates (excursions, travel reviews, local studies, etc.) with the opening to debate and the new topics disseminated internationally. If we focus on the AGE, it is organised into 15 working groups, whose existence has been authorised throughout its history. They correspond to a majority of branches of our science, as is logical for an association with a strong academic bias: Rural, Urban, Tourism, Population, Economic, Services, Physics, Climatology, ICTs, Local development, Regional Studies, Landscape, Geographical Thought and Latin America Geography and Didactics of Geography (Mínguez 2018). If we observe the level of affiliation by groups, we can guess which are the most popular fields of the discipline in the present. In fact, a total of five groups exceed 100 members. They are, in this order, Physical Geography with 137, Urban Geography 131, Rural Geography 127, Tourism Geography 109 and ICTs 103. The pre-eminence of Physical Geography is logical, since almost all the professionals who work in this area of knowledge are enrolled in this group and only a few in Climatology (44 in total). Among the remaining majority groups, the timeliness of the topics to be discussed has reinforced the importance of urban studies, tourism and the management of spatial analysis technologies. As a traditional expression, there is a large community of ruralists who have registered partial splits towards the Local Development (55 members) and Landscape (61) groups (Mínguez 2018). On the other hand, the less attractive groups with a number of 50 or less registered are, Climatology, Geographical Thought, Regional Studies and Services Geography. In the case of Regional Studies, its scarce popularity derives from the weak concretion of its field of study and Thought and Services evidence little interest in the theoretical debate and in the relatively new disciplinary branches. Thus, there are no work groups in Political Geography, or Social, Cultural or Risk, despite the problems of natural disasters that recur in the Mediterranean regions.

In our opinion, if the abundance of research on the city and urbanisation, tourism development or the use of ICTs currently expresses the degree of thematic renewal of Spanish Geography, the groups of Physical Geography (not so much Climatology) and Rural Geography (which together with Local Development and Landscape exceed 250 enrolled members) concentrate the most traditional concentration of the discipline in the country. To prove this, it is necessary to analyse the most relevant issues addressed by these two branches of the discipline, which until 10 years ago were clearly the majority in the work of Spanish geographers. Together with these two fields of knowledge, we are also interested in verifying the roots of local and regional thematic studies throughout the territory.

Rural Geography has been the field of study most deeply rooted in the discipline in Spain. Its primacy was absolute for decades until the 1980s, due to its identification with the regional paradigm of French inspiration to which we have referred to (Gómez-Mendoza 1997; Lois et al. 2018; Mata 1997). Practically all geographers who wanted to pursue an academic career in Spain were required to write a monograph on agrarian or rural issues referring to a municipality or a small region. It can

be said that this traditional way of conceiving Geography has marked almost all active researchers who are currently 50 years old or older. If a young person was interested in cultivating a more naturalistic perspective, the chapter dedicated to Geomorphology or to the Biogeography of the territory would be broader; if they showed interest in the urban, they would analyse small towns and county centres (Lois et al. 2018). In fact, with the constitution of the AGE, its first presidents had a marked ruralist imprint, some presidents of the rural group moved to the AGE and vice versa, and the Rural working group, to which we have referred, was the most popular of the Association, the one that carried out the most events and with greater regularity (Lois et al. 2018). Consequently, Rural Geography and the classical approach to spatial and territorial analysis in Spain tend to be profiles of the same reality. This is observed in two complementary ways: the first one, reviewing the topics addressed in their biannual congresses; the second, focusing on those departments where Rural Geography predominates and analysing their more traditional profile. On the Rural Geography Congresses topics, the one held in Granada in 2018, although it tried to portray a more current reading of this branch of knowledge under the slogan "New rural realities in times of crisis", returned to the well-known theme of "Crisis and the resilience of rural spaces" (using the fashionable term, resilience), to address the "Modernization, competitiveness and agri-food chain" focusing on the "Neo-endogenous rural development". That is, it is oriented to those aspects that it has been addressing during the last twenty years, although with small updates of words and qualifiers, which express the influence of administrative practices when referring to the agrarian and rural.

Within these topics, issues such as gender approaches, agrarian post-productivism, the study of networks of rural actors or rural landscapes in urbanised contexts, among others, are rarely developed, aspects that are indeed formulated in similar studies by the British and French geographies. However, a review of the topics of rural geography congresses held during this century, such as the one in Murcia in 2008, shows an insistence on rural development, productive modernisation (in irrigation) or new livestock systems, among others. In 2012, the stability and dynamism of rural areas, landscape, heritage and environment or the management of the rural community were introduced. Finally, in this review of examples, at the Girona meeting in 2014, the modernisation and competitiveness of the agri-food chain, the common agricultural policy and rural development were discussed (Lois et al. 2018). In this sense, the repetition of topics, based on mostly local and regional case studies, builds the hegemonic discourse. A discourse that reappears in the most discussed issues of rural geography articles published between 2011 and 2015 in the AGE Bulletin, the Spanish geographic journal of greatest projection and the means of expression of this representative association, where a majority of works revolved around landscapes and rural heritage, livestock and forestry, and agro-industry (Lois et al. 2018).

To complement this information, the second aspect to consider refers to those departments, and universities, where Rural Geography retains an important position in disciplinary investigations, among them, those of Castilla and León (Valladolid, Salamanca and Leon), Murcia, Alicante, Granada, Caceres or Huelva, which are

presented as solid nuclei of territorial analysis, but are still influenced by traditional geographical approaches or focused on governance and rural development.

A second area where classical geographical approaches continue to hold much importance is Geomorphology, established as the authentically dominant branch within Physical Geography for decades. This can be checked on the website of the Physical Geography group of the AGE, where this branch dominates everything (www.age.es//física.age-geografia.es). The minor, but autonomous, status of Biogeography is maintained. The climatology has a separate group and is scarcely mentioned, and topics such as the Anthropocene, integrated environmental analysis and evaluation, hydrology and water management or irrigation are less cited, in particular everything related to theoretical debates and with epistemological foundations. In fact, the group organised field days instead of congresses that, although they were held years ago, nowadays no longer take place in favour of the direct analysis of the land, formations, geomorphological processes and certain representative ecosystems. An empirical knowledge model predominates, little updated since the great debates between structural and climatic Geomorphology. A model that is also obsessed with publications in high impact international journals, based on brief contributions, case analyzes, always signed by several authors. With reference to this aspect, the information is abundant, but there is no direct link to large works or manuals on the subject, nor the result of meetings, and the references to the research groups in operation in the area are reduced to four. In a work already cited on geographic research in Spain (Lasanta and Martín-Vide 2013), the chapter is dedicated to the Physical Geography Group, synthesized in words by three of its most important referents, the effort made in recent years: "The lines of research developed by the members of the Physical Geography Group therefore respond to the tradition of Geography, as a holistic discipline, dependent on Geomorphology, but on which various groups of climatologists, hydrologists, soil scientists, biogeographers and forestry engineers and agronomists have settled in (…). The most successful line of research among geographers is the impact of land use on biota, terrestrial forms and processes, water or the atmosphere, at different approach levels and in different environments and transects. The works that have dealt with the use and management of the land in the alteration of natural ecosystems (Romero et al. 2013) are relevant. As can be seen, a broad field of Geography has been developed with an excellent management of analysis techniques, case studies and a proven empirical methodology. However, there is no theoretical-epistemological substratum (many times the purpose of knowledge is not clarified), a discourse of dubious geographical affiliation, is maintained (it is studied from an ambiguous equidistant position between the land sciences and a Geology without geologists) and, perhaps most important, ignoring the great environmental debates of recent times, such as those generated by the anthropocene concept and the threats derived from global climate change.

As a result of this profile rooted in an important segment of Physical Geography and Geomorphology, it results in a certain articulation of two parallel stories of our discipline in Spain: the geographical, fundamentally humanistic and social-scientific; and that of Physical Geography, with the lines already mentioned. They

can be found in another of the classic areas of geographical studies in the country, local and regional analyses, and particularly those focused on endogenous planning and development. The tradition of classic monographs on municipalities or counties has been revived by a new generation of European-inspired public policies that focus on local, endogenous or rural development, as the case may be (Rodríguez-Gutiérrez 1999). Precise diagnoses are prepared on a concrete reality to favour economic diversification, environmental protection or traditional activities, among others. In these cases, interpretive schemes of the old Geography of French tradition are useful; as to the complete analysis of the territory in question, a characterisation of recent socio-economic, environmental or landscape dynamics is added, concluding with a proposal for intervention (Márquez 1998; Martínez-Puche et al. 2000). A proposal that reflects the Geography-Territory Planning link of the discipline in Spain and a vocation of proximity with local and regional powers.

If we continue with the argument just stated, it is evident that another manifestation of conservatism (more ideological than political) of Spanish Geography of the present is its tendency to produce concrete territorial knowledge to please the local, provincial and regional authorities. It is evident that geographical studies on the local or regional (along with the characterisations by economists or agronomists and forestry engineers) have helped to define public intervention strategies to favour development processes. It is also true that the LEADER, PRODER and Interreg initiatives have helped to slow rural decline or, in some cases, create positive synergies in certain places. However, these actions have often suffered from a strong dependence on the indications of political leaders, who have always imposed their interpretation at the moment of directing the interventions prioritising territorial development actions. In these situations, a good professional work of applied geographers, and other professionals, ends up repeating the conservatism of regional or local diagnoses, implying a subordination to public decision-makers and contributing more to the reproduction of local power structures than to the renewal and dynamisation of the territories. Undoubtedly, Geography has delivered good readings and development plans of remarkable quality, in a context of abundance of European financial resources that lasted until 2008. However, here we want to highlight how the latent conservatism in the Spanish disciplinary community has ended up translating into a certain subordination to the regional and local authorities, which could have been avoided as a result of an increasingly necessary technical and theoretical-methodological empowerment.

Another completely different aspect where Spanish Geography also expresses the following attitude consists of the tendency (in certain cases obsession) of many colleagues to publish in international journals of impact, such as those included in the JCR and Scopus rakings. Although this dynamic is correct to achieve greater visibility of research results, taken as an absolute rule for the construction of curriculums, it makes many colleagues hostages to an exclusive production of articles, usually generalists and published in English. This already mentioned reality was evident in the declared objectives of the Physical Geography group, before the theoretical-methodological debate or the construction of solid discourses on the subject. In other areas of the discipline this practice has become widespread and has

led to a devaluation of the publication of books and implies a marked tendency to produce (orthodox) knowledge of rapid profitability professionally. Although these behaviours have a certain logic in the promotion of young researchers, their generalisation results in an impoverishment of the broadest and most nuanced geographical contributions. Also, on the direct transfer of the results to society, something that should be one of the unquestionable objectives of geographical work.

As we have tried to reflect in the aforementioned paragraphs, the conservatism of the Spanish geographical community is manifested in many different ways, which in one way or another portray us as a discipline today. The last indicator of this domain of *habitus*, of scientific trends, is defined by those branches of geographical knowledge that are common in various schools in neighbouring, influential countries, such as France, the United Kingdom, Germany or Italy; and those in Spain present a very limited development. In this case, and in our judgement, the enormous weight of the Franco period and accommodating past of the Spanish University justifies this evidence. Thus, the Political Geography, with the fundamental exception of the work of J Romero, the publication of some manuals or the experience of the *Toledo Group*, is absent (Gómez-Mendoza et al. 2013; López-Trigal and Benito 1999; Méndez 2011; Nogué and Vicente 2001; Romero 2004, 2006; Romero and Boira 2017). There is no working group on the matter and the presence of this branch of knowledge in current Geography study plans; it is limited to optional course subjects in the final years of university. Something similar happens with Social Geography and Cultural Geography, with less productive trajectories (Albet and Nogué 1999; Capellà and Lois 2002; Lois and Piñeira 2015; Luna 2006; Nogué and Albet 2004). These three examples have undoubtedly been influenced by the late incorporation of studies in Sociology, Anthropology and Political science to the Spanish University. In fact, until the final years of the Franco regime (the beginning of the 1970s), these degrees seen as *mistrustful* could not be studied normally in the country's higher education system. When the degree programs were inaugurated or departments were set up, it was sought to move them away from the centres of the main cities to avoid possible *contagion* (in the Somosaguas Campus in the Complutense de Madrid or in the Universitat Autònoma de Barcelona, in a municipality of the metropolitan periphery). A final weakness of the Spanish Geography refers to the low importance given to environmental studies integrated under the anthropocene or urbanisation paradigm. In fact, the geomorphological analysis remains attached to the studies of the Holocene, with its double climatic or structural variant. Many colleagues wish not to refer to this term and have focused their research careers on working on remote mountains, spaces less altered by the human being or in approaches to Geoarchaeology. A good part of Spanish Physical Geography looks insistently into the past and refuses to explain such recent and decisive processes as urbanisation and the artificialisation of increasing parts of the territory, environmental risks in contexts of high human occupation or the physical impact of large infrastructures. Only from approaches more closely related to climatology or regional analysis, as the chapter signed by J. Olcina and M. Hernández in this book demonstrates, a complete approach to these very relevant topics in present-day Spain is carried out.

3.4 Original Proposals of the Geographical Thought of the Present

Throughout this chapter, we have reviewed the current manifestations of conservatism reflected in academic Geography practised in Spain. However, parallel to this reality, our social science states a set of creative and innovative proposals for knowledge, which allow us to draw up a contradictory balance of this important Mediterranean European Geography. On the one hand, one of the great contributions of Geography in Spain is its contribution to the theory and practice of spatial planning at different levels, which has placed geographers together with architects and engineers in this applied variant of the discipline and made possible the establishment of an official College of Geographers in 1999. Through the college, numerous colleagues have participated in the development of urban plans, environmental impact assessments or landscape catalogues, with great influence on the specific territorial policies of the autonomous regions, metropolitan areas and Spanish cities. This influence can only be explained by the process of power decentralisation that took place in Spain after democratisation at the end of the 1970s and in the 1980s, and taking into account that, very early on, some geographers assumed public responsibilities in regional and local levels of government (Lois 2009). Among the most significant contributions of Geography as a management discipline, we can highlight the works promoted by the Barcelonan Oriol Nel.lo on the Neighbourhoods Plan or the Metropolitan Territorial Plans (Mata 2007; Nel.lo 2009, 2010). With regard to integrated coastal management or strategic environmental assessments, some Valencian or Andalusian colleagues have published relevant works (Barragán 2014; Farinós 2011a, b; Suárez de Vivero 2001). Finally, in relation to landscape planning and cataloguing, and under a different perspective, the group supported by Joan Nogué in Catalonia and Florencio Zoido in Seville constitute two indisputable references (Nogué 2010, 2014; Zoido 2010, 2016).

Among the studies that link Geography and Territorial Ordinance, without a doubt the most noteworthy are the numerous diagnoses and urban planning prepared by geographers from all over the country, individually or as part of a multidisciplinary team. In fact, it must be said that the field of knowledge of Urban Geography in Spain is much broader than that in other surrounding countries (France, Italy or the United Kingdom), because together with the interest in the population and the societies of these main nuclei, the morphology or the structure of the city, its activities, the landscape or the territorial systems that are created, in our discipline, urbanism in the strict sense becomes a natural issue to be addressed. One good example of this is the fact that the most popular dictionary of urbanism in the country, with two editions (Zoido et al. 2000, 2013), has been authored by a geographical group. In addition, a review of the most influential books and manuals of urban planning in Spain shows that many of them are produced or co-published by people linked to our discipline (Capel 2002; Lois et al. 2012; Nel.lo 2015; Vinuesa 2013). Also the regular official publication on these issues in Spain, the magazine *Ciudad and Territorio*, by the Ministry of Development and indexed, has

been directed and co-directed for years by two geographers (https://sede.fomento.gob.es/CyTET). Specifically, and as analysed, the intense process of urban and residential growth registered in Spain in recent decades has resulted in a marked interest in building, projects and building structures, by the community of architects of the whole nation. Precisely, those fields of the discipline were, together with theory or graphic expression, the central contents of the training of a young architect at the university. Thus, for many years this group only partially specialised in developing metropolitan, municipal or special plans and turned urbanism into a minor branch of the Schools of Architecture. This caused other disciplines such as Engineering, Sociology, Anthropology, Ecology or Geography to focus their efforts on developing this branch of knowledge. In particular, Geography focused on integrated interpretations of the city, with methodologies of elaboration of plans and with the management of historical centres, to the point of becoming one of the great referents (now with urbanist architects and other professionals) in the characterization, design and management of city or metropolitan projects (AGE 2011; Boira 2011; Feria and Albertos 2010; Nel.lo 2012; Troitiño 1992). In this case, Spanish Geography continues to make suggestive and innovative proposals, defining knowledge limits much wider than most of the European urban geographic schools.

Another academic field of knowledge where Spanish Geography has made fundamental contributions, actively participated in the university institutionalisation of the discipline and in some of its most innovative research, is tourism, an economic sector of fundamental importance throughout the country, where it contributes more than 10% of the national wealth and whose territory has become one of the four main international destinations over the last few years. The Geography of Tourism was making its way as one of the new branches of geographical knowledge in the 1980s, in a timid way because it was not totally distinguished from leisure studies (Luis 1988) and, in other cases, was framed as a field specific of the Economic Geography. It was at the end of that decade and the beginning of the 1990s, when the coordinated action of geographers from Barcelona, Tarragona, Alicante and Seville established the criteria of a branch of well-founded spatial analysis, decided to create (together with other colleagues in Madrid) the Group of Geography of Leisure, Tourism and Recreation of the AGE (https://www.age-geografia-turismo.com) and a book was written which became one of the great referents of studies about tourist destinations throughout the country (Vera et al. 1997). The manual catalysed all the possibilities that geographical analysis could provide to tourism studies that were beginning to be recognised as bachelor, master and doctorate degrees in Spanish universities, and not in independent higher schools as in the past (privately owned or so-called Official Schools of Tourism). The geographers also promoted the creation of various institutes and centres of tourism studies in different universities, developed numerous consulting tasks and, in certain cases, assumed the political direction of tourism in some autonomous governments (Galicia, Aragon, Catalonia and, more recently, Andalusia) or the promotion of official tourism institutes and observatories. Tourism has achieved considerable notoriety in Spanish university studies, and Geography, in an agreement with certain areas of

knowledge of the economy (marketing, business organisation, applied economics, etc.), is fundamental in the promotion of this academic offer (ANECA 2004).

From the research point of view, Spanish geographers have made an enormous effort in the characterisation and understanding of the dynamics followed by saturated or mature tourist destinations, especially of the Mediterranean coast, the Balearic and Canary Islands (Fernández-Tabales et al. 2015; García-Hernández and De la Calle 2012; Navarro et al. 2013; Vera and Rodríguez 2012). They have incorporated debates and theoretical approaches to international Geography and, increasingly, participate in them (Ivars 2014; Murray et al. 2017; Sanz and Antón 2014). Alongside the study of mature destinations, other topics have been studied in depth, such as urban tourism, where a powerful branch of geographic knowledge, linked to urban planning, perfectly complements tourism studies (De la Calle and García-Hernández 2012; Lois and Somoza 2003). Significant progress has also been made in the analysis of rural tourism and, increasingly, inland tourism (Blanco and Cánoves 2005; Cánoves et al. 2014). Finally, a large and partly renovated generation of tourism geographers is studying the effects of major events in the activity and is interested in understanding the new models of the collaborative economy (especially *airbnb*) in the main tourist cities, and has proposed the application of the concepts of sustainability and resilience to the study of this sector that is defined by the mobility of hundreds of thousands of people who try to have a good time and discover places in their free time (López-Palomeque 2015; Yrigoy et al. 2017).

If we continue with the big issues where Spanish Geography is making contributions that overflow their original academic work space, we find landscape studies. They have been greatly promoted throughout the country, after the signing of the European Landscape Convention in 2000, its ratification by Spain in 2007, and the subsequent landscape laws approved both by the Spanish government and by different autonomous governments (Mata and Tarroja 2006). In this case, again the geographers have been the first to establish catalogues and to elaborate comprehensive atlases (Mata and Sanz 2004; Observatori del Paisatge 2009). But even more important is the combination of theoretical and methodological contributions for its study, together with interventions and practical intervention recommendations. In Spain, the analysis and the prominence of the geographical aspect in landscape planning in Catalonia and in Andalusia stand out, following two different models (Noguè 2009; Zoido 2012), which have been continued in other territories such as Galicia, Valencia or the Basque Country. In landscape, Geography maintains a position of leadership, also acting as a bridge between more theoretical disciplines that seek to reflect on their foundations and meaning, such as Art History or Philosophy (López Silvestre 2013), and other more technical ones such as Architecture and Engineering, which seek to intervene directly in order to *organise it* or tidy it up (Barba 2006; Maderuelo 2008). In the strictly geographical area, it is worth mentioning the contribution of Joan Nogué, who from an interpretation of the landscape, influenced by perceptive and humanistic approaches as well as by the teaching received from Yi-Fu-Tuán, has provided the Observatori del Paisatge de Catalunya (www.catpaisatge.net), with a participative intervention approach, based on its priority action through catalogues and landscape charts. For its part, the other great referent, F. Zoido in Andalusia has

opted to include the management and planning of the landscape in the most formalised space of Planning and Urban Planning (Zoido 2002, 2012, 2016), through his work for years as the director of the Centro de Estudios del Paisaje and del Territorio in Andalusia (www.paisajeyterritorio.es). With greater or lesser proximity to these two main approaches, in Madrid the subject has been frequently worked on from a more regional and historicist perspective (Gómez-Mendoza and Mata 1999; Mata 2010), in Galicia with cultural and identity contributions (Lois 2017; Paul 2005) and in Valencia to face the important challenges of reordering the coastal areas (Farinós 2011a, b).

To conclude with the enumeration of branches of knowledge where Geography has innovated and overflowed its original areas of action in Spain, we must briefly refer to four other lines of research. The first one, the studies on the issue of water, its management and the elements related to the efficient planning of a scarce resource. It should be remembered that the Mediterranean regions of the country have a weak and irregular rainfall, which is combined with the development of a commercial agriculture that is highly demanding in water consumption, and intense urbanisation and tourism land uses. These related variables are translated into a whole series of debates and problems of where the academic study of them should be directed to, which are fully explained in this book in the chapter by J. Olcina and M. Hernández. These two authors also analyse the long geographic tradition of the country in relation to climatology and climate change. Along with their review, which is well documented in the scientific field, it can be said that geographers specialising in climate in universities throughout the country also achieve notoriety for ending up, in the best-known cases, working as weather reporters on popular television and radio stations along with physicists and other meteorology professionals. This fact, without doubt, has given prestige to geographical knowledge and has facilitated the employment of a large number of colleagues in public services dedicated to preparing climate forecasts in various autonomous regions.

Another area where our discipline has made significant public contributions is that of demographic challenges. In this regard, it should be noted that: (a) the south of the country is one of the main gateways for irregular immigration from Africa; (b) Spanish society as a whole shows marked ageing and loss of population (with one of the weakest fertility rates in the world); (c) rural depopulation is a fact; (d) the analytical approach to gender has advanced in academia, largely encouraged by a powerful and popular feminist movement. In this way, the Geography of the population or Geodemography has remained strong throughout the country, with reference centres such as the Centre d'Estudis Demografics at the Universitat Autónoma of Barcelona, led by A. Cabré and which has carried out numerous advisory works for public institutions in recent decades, (https://ced.uab.cat/es/), and the Instituto de Geografía, Demografía and Economía of the CSIC in Madrid, with a solid line of work on ageing and residential mobility (www.iegd.csic.es). Undoubtedly, this interest in the scientific analysis of the population has placed Spanish Geography equally with Sociology, Statistics and various Social Sciences, at the centre of demographic research. The traditional logics of the Geography of the French Population (Beaujeau-Garnier 1972; Noin 1988), of conceiving a strong

Geodemography within the framework of a renewed human Geography, are applied here. This has been achieved by various authors and works (Cabré 1999; Puga and Abellán 2007; Puyol et al. 1993; Recaño 2004), thanks to the operation of the active Population Geography group within the AGE (https://www.agepoblacion.org/). Lastly, the situation of the country in the Iberian Peninsula (where territory is shared with Portugal and the southern border of the EU), the incorporation into the European Union (with the generalisation of its rural and community development programs) and the little attention paid to other topics of Political Geography, as we have already pointed out, have encouraged an important line of research on borders. It has been cultivated permanently in the analysis of Spanish-Portuguese regions, which greatly benefited from the European programs of cross-border cooperation (Cabero 2002; Lois 2007; López-Trigal and Guichard 2000; Márquez 2008). More recently, studies focused on both the Pyrenees and the problems of the southern border (Cohen 2017; Oliveras et al. 2010) have allowed the appearance of the first works of more theoretical and general content, which place Spanish Geography as one of the leaders in this type of studies in the European and international context of the present (Cairo et al. 2009; García Álvarez 2015; Trillo 2010). In short, despite the trends, the academic study of regional, human and environmental geography has advanced greatly in recent times, defining a novel profile of a discipline that still lacks a greater popular projection of its work and achievements in a diverse country, marked by socio-territorial tensions and that faces the effects of intense transformations in a space that is generally fragile.

Although from a research perspective Spanish Geography enjoys great prestige among the Social Sciences of the country, its popularity as independent university studies offer is low. In addition to the problems associated with unfortunate geographical content in secondary education and in high school, our discipline has problems to be identified as a current branch of knowledge by public opinion. For this reason, and with the encouragement from both the AGE and the College of Geographers, the disciplinary group to which we belong has taken the decision to develop public manifestos, where territorial problems of the first magnitude have been denounced and the applied geographical reading has been provided as a tool to contribute to its solution. Specifically, in 2006 they took the initiative in preparing a declaration "For a new culture of the territory", where they warned of the dangers of the massive urbanisation of the country and the artificialisation of large sectors of the weakest, usually Mediterranean, regions (AGE, Colegio de Geógrafos and Colegio de Arquitectos 2006). The manifesto had the support of the College of Architects and warned of the excesses of the real estate bubble that soon would explode in 2008. The *new culture of the territory* has become the referent of what Geography can contribute to society as a whole; this explains why the initial manifesto has been updated in 2018 (AGE 2018a, b). Together with the main declaration of the new territorial culture, influential groups of geographers have adopted positions favourable to the respect of coastal areas, the maintenance of a strict coastal law (AGE 2006), and have denounced the misuse of public funds in the construction of large infrastructure works and equipment of scarce utility (AGE 2018a, b; Romero et al. 2018). In short, the manifestos and declarations constitute another of

the milestones of the renewal and originality of Spanish Geography in recent decades, its continuity is defended by the academic and professional community (with new texts, such as the one prepared on rural depopulation, AGE, 2018a, b) and allows the expression of how Geography constitutes an interesting knowledge for society (during 2018, the opening of some top-rated news programmes on television with stories about the study of the Geography of waste of economic resources is a good example of this).

3.5 Conclusions

The approach of the contribution of this chapter has been diachronic, although it cannot be considered historicist. An attempt has been made to clarify the position of our discipline in Spanish universities and academia, whose main aspects define its work and what legacies, of a different nature, have been accumulated in these first decades of the twenty-first century. Spanish Geography, to a greater extent than the firmly anchored French or Portuguese, shows a series of deficiencies that could result in the weakening of its favourable institutional position, reinforced in the second half of the last century. The fragility, as we have tried to explain, derives from the low popularity of the Undergraduate Degree studies, despite being associated with Territorial Planning, and the survival of a fragmented discourse between everything geographical understood as full Social Science and the meta-narrative specific of a group of physical geographers, that works from the concrete in a little precise environment called Earth Sciences. Faced with these problems, Geography has established itself as a highly prestigious research field (which attracts young people trained in other specialties to its masters and doctoral programs), with an undoubted applied tradition (in territorial planning, urban planning, tourism, water management, etc.) which helps develop useful discourses for society as a whole.

As with most Spanish universities, Geography feels the effects of a heavy inheritance from the past. The first of them, the attempt to use its contents by a totalitarian regime, interested in the possibilities that the memorisation of maps and land accidents had for the uncritical indoctrination of schoolchildren. This forced university geographers to build an aseptic discourse of everything ideological, with encyclopedic elements, and linked to field work. The massive use of the Vidalian regional-landscape method and a historicist interpretation of reality made it possible for a good part of academic Geography to be abstracted from its instrumentalisation by the Franco regime. The consequences of this decision were a marked rural and geomorphological reading of the territory, a certain submission to the wishes of the authorities when planning local and regional development, and a marginalisation of branches of the discipline such as Political, Social and Cultural Geography, or the dynamic study of the environment, which are still maintained today. On the other hand, the Spanish University (and a science, in principle traditional like Geography still more) continues reflecting a certain aversion to the theoretical and

epistemological debates, with a good number of young researchers with poor employment conditions.

Despite historical hindrances, Geography has been able to take advantage of the period of political modernisation than began in the 1970s and 1980s to redirect its academic purpose, reinforcing some of its more characteristic signs of identity of the present. Thus, the discipline has consolidated an interesting applied aspect that links it to Territorial Planning and local development. This has allowed Geography to partially abandon its strictly university link and the creation of a College of Geographers thanks to a 1999 law. In addition, numerous colleagues have affirmed their position as prestigious technicians or even political leaders at local and regional levels, which has contributed to improving the image of the discipline as an applied and useful knowledge. Secondly, and still ongoing, Spanish Geography has become independent of history and historicism as major epistemological referents, reaffirming its greater identity as a Social Science and complementary (and sometimes conflictive, as we noted) as Earth Science. In the third place, geographic associationism is identified by its critical tone in the face of the country's major territorial problems, demanding a new culture of development, environmental, and criticising the serious imbalances and risks that a policy of extreme growth has generated throughout the country in recent decades.

Undoubtedly, Spain can be defined as an extraordinarily geographical reality; diverse physical and bioclimatic territory. Internal variations that would have been less relevant if there was no permanent problem of internal territorial definition of the Nation-state. A state that oscillates between those who conceive it in a unitary, Jacobin and centralised way, and those who only admit its existence with a plurinational meaning. For what concerns us, these elements should have been translated into an enormous social and popular importance of geographical knowledge. However, the situation is much more complex as we have tried to explain. Geography, associated with the Planning of the Territory, constitutes an unattractive higher educational offer in the whole country. A country in southern Europe where the mythification of growth objectives has uplifted strictly scientific-experimental or technological knowledge to the detriment of social and humanistic training. A society where the repeated failures of territorial planning have translated into a skepticism towards its contents, which extends to disciplines such as Urbanism, Economy or Geography. However, our scientific community has managed to maintain a prestigious research status, a character of knowledge linked to the territory that is highly regarded and a number of its members have stood out as managers and influential decision-makers in the public sector, where what is needed to do, to correct in front of the excesses of the urbanism and the artificialisation of the land, has real recognition as a base of reformist policies, that unfortunately have reached unequal results.

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Chapter 4
Geography and Territorial Planning in Italy

Piergiorgio Landini

Abstract The debate between urban planning and geography in Italy, based on common issues and concepts of city, territory, region and landscape, dates back to the second half of the last century. Due to a series of elements both internal and external to the discipline, geography has only had a marginal role in territorial planning, mostly in 'vast areas', identifiable at provincial and district level. The role of the geographer has mainly concerned territorial analysis, with particular attention to demographic and socio-economic aspects, as well as environmental ones.

Today, the matter deals with the structural and strategic significance of planning, along with the scale of intervention, with an interesting recovery of interdisciplinary relations. In this perspective, a fundamental issue is the administrative reorganisation of the Italian State, where a strong political and technical-scientific debate has been developed in recent years. In light of the stances adopted by the Italian Geographical Society (Società Geografica Italiana, SGI) and the National Urban Planning Institute (Istituto Nazionale di Urbanistica, INU), a potential alignment of the two disciplines is promising, which would gain specific measures that are no longer avoidable against the collapse that the natural and constructed territory in Italy has now reached.

Keywords Italy planning · Regional Geography · Vast area · Administrative reorganisation

4.1 The Reasons Behind a Missed Opportunity

The relationship between geography and territorial planning in Italy could be defined as a missed opportunity. Unlike other countries both in and outside Europe, where the geographer has been considered as a full-fledged planner, in Italy he has assumed the role of an external observer, often critical and almost always unheard. Even when he accepted assignments in the planning field, this was more about

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personal and political situations related to individual contexts than from the acknowledgement of his specific professionalism.

There are many reasons to this situation, both internal and external to the disciplinary corporation. Among the internal causes, the most distant is the intentionally detached attitude that Italian geographers have had throughout regarding political practice, with the consequence of a self-exclusion of their scientific knowledge from the practice of planning. It has also stemmed from a fundamentally descriptive approach even after the middle of the twentieth century, which, moving from the natural territorial basis, was going further into researching the interdependences between physical and human elements, summarised under the concept of landscape: descriptions that were not alien to value judgements but completely lacking operational purposes. Even the analysis of economic and anthropic conditions was done from a historical standpoint and not with a programmatic approach; also, about the cities, geographers provided no more than a typological classification, related to topographic sites, geographical location and consolidated functions.

Indeed, there was no lack of approaches that were at least seemingly different. In 1950, the economic geographer Bruno Nice presented a report titled *Territorial planning for geographical landscape development* to the Italian Geography Congress in Turin, in which he traced foreign practice on the matter, immediately focusing geographers' interest on 'vast area' planning, namely the Territorial Coordination Plans, introduced in Italy by the new and still-in-force (see below) Framework Law on Domestic Urban Planning (Law no. 1150/1942). In this regard, he complained about the lack of a comprehensive view on planning which was present in other countries: actually 'individual partial plans could be in contrast', hence 'the need for their general coordination, which is what territorial or comprehensive planning properly called aspires: to contemplate not only one or more elements of the landscape, but the landscape as a whole' (Nice 1950, p. 532). Such an arrangement seems to predict the criticisms that, in the following decades, the sectorial nature and fragmentation of the planning activity, managed by planners, would have generated in the Italian context.

According to Nice (Nice 1950, p. 536), it is therefore the landscape, a founding concept in modern geography, the crux of territorial planning issue: 'a form of balance between the action of different forces, not only natural or human, but also between the different economic forces, which the planning is indeed aiming to mutually combine'. Even in this sense, he holds a farsighted view, which geographers do not unfortunately follow, thus losing the scientific pre-emption on this notion and on the 'principle of synthesis' that the discipline expressed, as was argued by one of the major geographers from the period, Umberto Toschi (1967, p. 8):[1] 'the geographic sciences study the empirical phenomena, spread across land surface and interconnected in spatial mix and put in place by them', namely the regions.

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[1] The book that the quote is taken from (posthumous: Toschi died in 1966) gathers and organises the author's thoughts as they were already conveyed in monographs for his university courses and published between 1948 and 1953.

Going back to Nice, the ending of his report at the Congress must be therefore surprising: 'What I believe could explain the echo that the phenomenon [the planning *author's note*] sparks in geographical literature in view not only of the practical scopes of application, but also of scientific grounds of interest that it offers to the geographer' (Nice 1950, p. 536). It is almost a surrender to the professional application, which brings back the geographical discipline to the neutrality and above-mentioned detachment and which will have a negative impact on its future developments in the planning field.

Even in the 60s, as Governa and Salone (2003, p. 628) remember, another major Italian geographer from the past century, Lucio Gambi, speaking about the relationship between knowledge and action, namely the search for an active role for geography, stated that the few experiences that geographers had in determining policies for territorial development were often restricted to 'a superficial, reportorial description of objects' and he complained about the misunderstanding between 'preliminary enquiry' and 'real, actual planning': although the former involves technical ability in detecting the territorial conditions, only the latter 'leads in a radical economic and social layout of a region's demography and urban planning' (Gambi 1965a, pp. 96–97).

A second internal reason for the lack of professionalism among Italian geographers is due to their heterogeneous education. A degree in Geography[2] has always been part of the university structure, but it was generally characterised by the addition of 2 years of Geography studies in initial curricula in Natural Science, Humanities, Political Science or Economics, and was therefore attended to attain a second degree by an objectively limited number of students. Otherwise, geographers came directly, and still come, from the aforementioned branches.

In the university reform which took place from 1999,[3] specific degree categories in Geography have been maintained, both at the first level (degree) and the second level (specialisation and then master's degree).[4] Initially (2001–2002), there were quite a lot of locations where first-level courses were offered: ten (Bologna, Chieti-Pescara, Florence, Genoa, L'Aquila, Milan 'Statale', Padua, Eastern Piedmont, Rome 'La Sapienza', Turin), whilst the second level peaked with eight locations in 2005–2006 (Bologna, Florence, Genoa, Milan 'Statale', Pisa, Rome 'La Sapienza', Turin, Udine). Later, the reduction in Geography as a discipline at junior school and high school, the uncertainty of job opportunities and the fall in the number of university professors to teach the subject, within a general context of crisis in Italian universities due to the lack of resources and a decrease in applications, have noticeably brought these numbers down. In 2012–2013, there were only two

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[2] Table XXXIV of Royal Decree no. 1652 from 30 September 1938, amended by the Ministerial Decree from 29 December 1992.

[3] Ministerial Decree no. 509 from 3 November 1999, replaced by Ministerial Decree no. 270 from 22 October 2004.

[4] In Ministerial Decree 509/1999: Category 30 (Geographical Science) for the first three-year level and Category 21/S (Geography) for the second two-year level. In Ministerial Decree 270/2004, respectively: Category L-6 (Geography) and Category LM-80 (Geographical Science).

first-level courses (Milan 'Statale', in conjunction with Genoa, and Rome 'La Sapienza') and three second-level courses (in the same venues with the addition of Bologna, as well as a course on Geography and Anthropology in Florence).

All this has obviously done nothing to favour the consolidation of a professional role for Italian geographers, and lesser so in the planning field. Staying in the university environment, and particularly in Economics faculties and departments, not a few geographers have received teachings on Territorial Planning or Territorial Organisation, which—sadly enough—mainly stems from the demand for diversifying such teachings, even in labelling terms, from the classics of Economic Geography, a definition that is even considered obsolete and still less attractive for students. It is clear that the content has been limited in the scope of Geography as a discipline, because specific teachings on urban planning are part of the degree courses in Architecture and Engineering.

There is also a third factor here, which is external, explaining the reason why geographers were left out of planning activities: the lack of a Professional Order or Register, despite various attempts to gain it, which would grant them a formal licence to carry the planning activity similarly to architects and engineers. In reality, the restriction only concerns the urban plans at the municipal level, namely the General Regulatory Plan (Piano Regolatore Generale, PRG), which however represented the true core if not the exclusivity of the Italian planning tools, at least until recent years, despite the aforementioned Framework Law in 1942 introducing the 'vast area' plans at an inter-municipal level (see above). This latter have been scarcely applied anyway, except for the Provincial Territorial Coordination Plans (Piano Territoriale di Coordinamento Provinciale, PTCP), whose effectiveness has been strongly limited by their merely advisory character and not strictly regulatory nature.

4.2   Geography and Urban Planning: The Origins of a Debate

Ever since it was founded in 1930, the National Urban Planning Institute (Istituto Nazionale di Urbanistica, INU) has been the reference point for urban planning and territorial planning in Italy. One of the few geographers that joined it was Umberto Toschi, who became part of the Commission named by the National Directorate Council in 1961 to create a proposal for the General Law for Urban Planning along with Camillo Ripamonti, Giovanni Astengo, Enzo Cerutti, Gianfilippo Delli Santi, Luigi Piccinato and Giuseppe Samonà, the biggest names in urban planning at that time.

Toschi, who had been researching the role of geographers in urban studies (Toschi 1956) since the 1950s, published important essays on the so-called Territorial Plans (1961) and City-region (1962), reaching a climax in the indispensable book on urban geography (1966), which made him the reference author in studies about

this field. Even echoing essential insights from his thoughts, in the last quarter of the century, Italian geography was experiencing a phase of epistemological re-foundation, driven by Adalberto Vallega (1976): in an international scenario with increased functionalism on a quantitative basis, the discipline regained interpretative and critical ability, not neglecting the territorial modelling but prioritising a systemic approach capable of reassessing fundamental qualitative concepts such as Toschi's 'geographical synthesis' (see above). The geographers were accredited as analysts and interpreters of complex territorial phenomena, favouring key themes such as regions, urban networks and local systems.

At this particular stage, the writer was facing, along with Pietro Mario Mura, one of the few Italian geographers who had taught in the Architecture faculty, the direct debate between geography and urban planning (Landini and Mura 1982) in the specific view of the regionalisation processes, in the majority regarding to 'vast area' planning favoured by the geographers.

Thus, focussing the attention on the space distribution methods expressed by urban planning and more, widely so, on the recognisable paradigms in the two disciplines, it emerged as if the similarities were not limited to a more or less contemporary demand to critically amend the respective content and to, as a result, redefine the actual areas of action, but as if this demand were to move from a similar condition, at least in the Italian situation. See what was written immediately after the second post-war period by the urban planner Giorgio Rigotti in his summary on the evolution of interests and the duties attributable to urban planning and the necessary cultural and professional attitudes:

> I consider urban planning as a complex of art and sciences rather than a singular art and a specific science. It has indeed gone progressively from the old definition of 'art of constructing cities' to the new definition of 'organisational system of cities and territories'. [...] As a result, not only one but many sciences are needed to the urban planners to approach and resolve the infinite problems that they face.[...] The urban planners must therefore possess three specific characteristics: deep analytical qualities allowing them to outline and classify the essential elements; specific synthetic qualities that lead them to find solutions based on what is provided by analyses; and finally, above all, a fine balance [which he defines as a 'common sense', *author's note*] to provide the solutions with the necessary eurhythmy for the best human works (Rigotti 1947, pp. V–VI).

By translating the 'common sense' for 'synthesis' from Toschi, the crossroads position adopted by both disciplines seems clear. One could only ask: what mutual diversification between the two positions concerning the fields of interest and methodologies is there? One would be tempted to answer: only one, that urban planners know how to build a building, or a neighbourhood, and geographers do not!

Yet in the same year, one of the main exponents of Italian urban planning, Luigi Piccinato (1947, pp. 9–10), defined his discipline as the study of conditions, manifestations and the need for life and progression in cities: not an exact science but more of an art. Why not recall the extraordinary *summa* of Peter Haggett's thought and geographical profession (1990)?

Going back to the interdisciplinary debate, the problem with the relationships between city and territory is clear on a methodological level even for Rigotti (1952,

p. VII), when he states: 'We have never made a direct distinction between city and region, and we have actually always considered the urban structure as an integral part of a bigger structure made from territory, both of which are closely linked by many interdependence factors'. This approach which is completely acceptable by geographers could look like a kind of systemic perception; but in reality, in the following analysis, the only openly expressed regional concept is that of a uniform area as a criterion for defining specialised surfaces (Rigotti 1952, p. 367 and following). It is said that in those years, a breaking position regarding such traditional urban planning was defined in the themes at the National Urban Planning Institute Congress in Venice (Istituto Nazionale di Urbanistica 1953): but it was an incidental initiation destined to amount to nothing for a long time.

Moreover, on the definitory and epistemological apparatus of urban planning, weighed the interference of two mental approaches: the predominant aestheticism of the architect and the practical positivism of the engineer. Even in this situation, therefore, there was a diverse education that nevertheless found its own recomposition in empowering both professional orders for urban planning tasks.

4.3   A Renewed Regional Geography Does Not Match the Planning

Italian geography's transition from an idiographic to a nomothetic approach, which is generally ascribed to the creation of functionalism (see below), really began in the 1960s within the political and economic geographical current that refers to Francesco Compagna and Calogero Muscarà, largely inspired by the French voluntarism.

Starting from a research on urban system transformations in Italy, Compagna (1967) analyses the concepts of conurbation, metropolitan area and megalopolis, adopting both a European and a global scale, and he incorporates them into the Italian interpretative framework of so-called 'meridionalismo' (regarding the South of Italy), founding the origins of the North-South duality, for the first time, not only about the differences in physical conditions and the degree of industrialisation, but also about the inter-urban relations arising from different trajectories traced along the history of the territory. By classifying the supporting role of the upper public and private tertiary, the possible roles of big and medium-size cities are outlined, and a rebalance of trends can even be postulated via the creation of new functional relations in the Italian 'Mezzogiorno'.

Analyzing the process of industrial development (1967), Muscarà introduces the concept of an 'Italia di Mezzo' ('Middle Italy') between the North and the South, providing significant importance to the decentralisation phenomena from the strong North-West, but also to the urban polycentrism that differentiates the middle of Italy from the other big partitions in the territory, and emphasizing the role of a widespread base of services, low labour costs and other endogenous production factors.

The objective glorification of the role of the city, as a centrepiece for demographic, industrial and infrastructural growth, as well as technological development, fundamentally changes the geographers' regional perspective. From the concept of region in which the kind of life represents the balance between natural resources and human capacity, in the framework of territory and landscape historical evolution, there is a transit towards a functional interpretation of region, where economic forces are what can define new organisational layouts. In fact, the concept of region loses its objective physical or cultural nature in becoming an area polarised by one or more urban centres. As a result, the inductive analysis methodology (direct observation integrated by descriptive statistical support) becomes deductive, with the use of gravitational models on a quantitative basis.

Therefore, the regional setup ends up being defined by the urban frame, characterised by different degrees of centrality/accessibility, namely with functional allocations usable by the market, and is thus represented by a hierarchy of centres and services that are interdependent amongst themselves to different degrees. It followed that the functional region, characterised by a certain hierarchic order, corresponds to the gravitational area on a centre (pole) and its boundaries are identified from the line of indifference compared with the competitor poles offering the same level of services.

In Italy, a gravitational model that would have been quite relevant in territorial literature and to which the geographers (Landini 1973) have made an important contribution, together with statisticians and economists, was created by SoMEA (Society for Applied Mathematics and Economics). Eight hierarchical levels of centres were identified (national metropolis; regional metropolis; regional cities; subregional cities; local urban centres; semi-urban centres; urbanised villages; basic centres) and as many levels of services. For each level of services, the model ascribed each centre to an area of gravitation whose dimension was directly proportionate to the functional allocation and inversely proportionate to the degree of accessibility calculated on a weighted graph. The substantial confirmation of the Italian regional imbalances ensued: the hierarchy of centres belonging to upper levels clearly underlined the strong urban frame of the North-West, polarised by the Turin-Milan-Genoa triangle, from which the Po Valley, Alpine alignment (towards Venice and Trieste) and Apennines one (towards Bologna and the Adriatic coast) branched off. The latter, along with the Tuscan transversal axis and the central Apennines area, highlighted the polycentric layout of the Middle Italy, which answered the progressive urban rarefaction of the 'Mezzogiorno' from southern Lazio.

Using this model and others, an attempt was made in vain to start an application for the regional planning on a national scale: the '80s Project', and particularly its Territorial Projections (Ministero Bilancio e Programmazione Economica 1969–1971), were then proposed but have remained substantially ineffective.

Conversely, in the years following immediately, urban planning was amongst the first competences transferred by the Italian State to the Regions (Law no. 382/1975). This resulted in a fragmented and uneven urban planning legislation, nevertheless based on procedural-legal centrality, from which more or less rigid hierarchies of

plan sat different scales (regional, provincial, municipal). Hence, the legislative framework was inevitably still the Framework Law from 1942, but even more so from Law no. 765/1967 (called an interim law in that it should have accompanied the transition to a still uncompleted reform) which actually made the urban plans mandatory on a municipal scale, based on zoning the land ownership. This was the opposite of the optimal urban planning law which should attribute to the plan 'wide power, ample room for manoeuvre, without trying to predetermine the planning processes but instead guaranteeing the essential conditions' (Crocioni 2014, p. 29) in the widest regional context, as the few attempts of 'vast areas' continuous planning have tried to do, most notably those from the Inter-Municipal Plan of Milan.[5]

4.4 The New Planning Directions and the 'Vast Area' Problem

From the 1990s, however, urban planning has reconsidered the importance of territorial analysis as an integral part of the plan on all its scales and dimensions. So, under the force of the directions proposed by the National Institute of Urban Planning, the legislative activity (mostly regional) concerning planning has captured decisively innovative elements which, starting from the definition and construction of the plan, regulate the management, control and monitoring of the effects in two different ways, strategic/structural and operational, sustained by shared fact-finding frameworks and based on the construction of a specific mapping of the places and landscapes (Landini and Properzi 2005).

These new directions—at least potentially—reassessed the contribution of geography to planning, thanks to the trans-scale approach that has gone into defining the new spatial orders created out of social changes and technological innovation.

The problem with the definition and legislation of the 'vast area' was still open, both conceptually and dimensionally. For the geographers, the reference to the regional theory appeared immediately, and by not having fostered the urban plan model, such a definition fit both the natural region and the homogeneous area under the cultural profile, and also the functional district and the local system. After all, already from the 1970s, Geography had taken part in the debate on the role of the intermediary institution between Regions and Municipalities, the latter being an expression of thorough widespread administrative decentralisation. The obsolescence of the provincial divisions[6] gave way to many different proposals for

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[5] It was launched in 1959 with a Decree from the Public Works Ministry, and entrusted to the Municipality of Milan, extending its reach to 35 bordering municipalities.

[6] At the time of the unification of Italy (1861), the administrative division was indeed based on the provinces (59 in total), whilst the grouping in compartments (the current Regions) somewhat overlaid the territorial structure of the pre-unification states, on whose statistical systems it was necessary to conduct the first census of the population in that same year. And for census purposes, Pietro Maestri, director of the Central Statistics Council, was in charge of reviewing the compartments,

recognising areas on a functional basis (generally called districts), which were a better response to the real and intense processes of redistribution of the settlements, both residential and productive, and as a result to the role of central locations emerging out of the relational and economic profile, with the corresponding influence areas (Landini 2013). Geographical research put into effect the theoretical-methodological advances that were aiming to define the gravitations to urban poles, through the creation of quantitative models (see above), disregarding any administrative limits and somewhat reading the representational flows of the actual territorial organisation.

However, the district issue clashed with the prevailing political inactivity regarding territorial planning: not managing to define a regulatory categorisation, the problem of potential relationships, be they complementary or substitute, between districts and provinces was unresolved. On the other hand, the fact that the aforementioned Law no. 382/1975 delegated the competences established by the Constitution concerning planning and administrative governance of the territory to the Regions made clear the relinquishment of the state power to the determination of uniform criteria for the redesign of the sub-regional layout, namely the 'vast area'.

At the end of the 1970s and throughout the following decade, the Fordist industry crisis and, with it, the crisis of agglomerative urban concentration led to the emergence of the productive model based on local industrial districts, which was progressively spreading not only in the North-East and Centre, the 'Third Italy', but also in the South, where district characteristics were clearly recognisable in the North of Bari, in Salento, Materano and Eastern Sicily. This reinforced the variety of the Italian territories correlated to the pre-existing economic activities and historical-social bases, against the flattening of territorial peculiarities caused by

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in which he favoured the 'continuity of physical constitution', the 'correlation and economic compliance' and also the civil traditions in the provinces that constituted them (Maestri 1864). Since then, these groupings, which at the time lacked any legal value, which they would have assumed with the Republic Constitution in 1948, haven't undergone any substantial changes, subject to the subsequent annexations to the Italian State of the Venices, Lazio and Trentino-Alto Adige, the loss of the Giuliano-Dalmate provinces after the Second World War and the division of Molise from Abruzzo in 1963; conversely, their internal partitions have become all the more fragmented with the cropping of new provinces (particularly in 1923–1927, 1992, 2001 and 2004), up to the number of 110.

If in some cases the cropping of the new provinces has mirrored demands for decentralisation linked to the long distances at the time (Matera, Enna, Ragusa and Nuoro in 1927) or social and productive transformation processes of the territory (La Spezia and Taranto in 1923; Vercelli, Varese, Savona, Terni, Pescara and Brindisi in 1927; Pordenone in 1968; Rimini in 1992; Barletta-Andria-Trani and Fermo in 2001) or even physical processes (in the case of the large redevelopment area at Littoria, later Latina, in 1934); in other cases, on the contrary, it has represented an attempt to give self-governance to areas that were marginalised from the metropolitan growth of Rome and Milan (Viterbo, Rieti and Frosinone in 1927; Lecco and Lodi in 1992; Monza-Brianza in 2001) or from economic isolation (Isernia in 1970, Oristano in 1974, Crotone and Vibo Valentia in 1992), not to mention the four provinces activated with the Sardinian regional law (2004: Olbia-Tempio, Ogliastra, Carbonia-Iglesias and Medio Campidano). The Prato and Biella situations are also emblematic, established in 1992 when the model of the 'mature' textile district that shared them was already in crisis.

mass development, and it re-evaluated the endogenous resources, not only in the industrial sector but also the agricultural, cultural-naturalistic and tourism fields, focusing the Country on new sustainable development strategies based on territorial systems and their relations from local to transnational scales.

In the 1990s, this gave substance to the idea of regionalism on an identity, socio-political and economic basis, with substantial institutional reflexes on the competences of the territorial bodies and a marked tendency to identify regionalism with federalism. The first signs were seemingly found in Law no. 142/1990, which should have opened a phase of structural change in territorial governance and which remained however, after a promising initial debate, amongst the biggest unfinished tasks of national legislation in the last 30 years. A merely apparent progression was given by the Constitutional Law no. 3/2001, even this one going unapplied, which with article 4 (replacing article 118 of the Constitution) established a substantial principle of equiordination of local authorities. In this sense, the administrative hierarchy would have been abolished which, notably in the planning field, had determined cascade-type forms of control (from the State to the Regions, the Provinces and the Municipalities), limiting the acceptance of the requests coming from the territory.

On the urban planning side, it is interesting to find stances from scholars more sensitive to the territorial problem than to the strictly urban problem. Among these, Pier Carlo Palermo (2004, pp. 13–40), who, retracing the history of planning in Italy, defines the 'vast area' as 'one of the most innovative themes in the complex planning system foreseen by the National Urban Planning Law in 1942', thus showing how territorial governance at that scale has always been a limitedly developed issue, and in recalling the topical occasion of Law 142/1990, he observes how the Territorial Coordination Plans, which this law afforded to the Province, preserved a traditional structure (spatial distribution of the functions; infrastructural localisation; lines of intervention on the environment and the landscape), depending on the level of regulatory flexibility/rigidity, risking being simple orientational documents or creating conflicts with the planning at a municipal level, in turn characterised by the duality between territorial organisation outline and urban design or, more strictly, between urban planning and architectural project. Even in structural planning, there is still a substantially unresolved problem: if the structure must constitute a system of invariant dimensions, thus prescriptive, or a pattern of potential transformations which are inherently dynamic.

Roberto Mascarucci, member of the National Directorate Council at the National Urban Planning Institute, proceeds in this last thesis and in heading his own recent book in purposefully provocative manner (*Serve ancora l'urbanistica?*/ Is urban planning still useful?), departs from the assumption that urban planning is always about less urban design and more territorial governance: under this profile, in view of strategic planning, he identifies a new generation of 'vast area' plans (which he calls Inter-Municipal Spatial Plans), which promote aggregation of Municipalities in both metropolitan conurbations (to rationalise and regenerate) and territories rising out of the intermediary urban network (to design synergies and optimise the system offer), as well as minor urban centres in marginal areas (to favour complementarity and reach enough critical mass). Therefore, fundamental analytical categories of the plan will be typically geographical and those regarding geomorphology,

landscape and urban texture, correlating to the urban morphology and the design of the infrastructures, crossing the spatial approach with all the other technical approaches (socio-economic, transport, energy), searching for the functional links that relate them and working on these to maximise the positive effects of the project choices (Mascarucci 2014, pp. 46–48).

Another area of potential interdisciplinary convergence is the Territory Project. It is a new approach for planning of national and international spaces, encouraged by EU policies on economic, social and territorial cohesion, with inevitable reflections on regionalisation. The European policy on networks and infrastructural guidelines in Italy was particularly translated into forming the National Strategic Framework 2007–2013 by the Ministry for Infrastructure and Transport. Substituting the general planning, it identifies 16 Strategic Territorial Platforms, expressed at transnational, national and inter-regional levels, which cross the administrative-political boundaries at the different levels, risking however to find hurdles in the obsolete provincial and regional layout (see below).

About the implications linked to the origins and the intrinsic nature of the Territory Projects, Pierluigi Properzi, Vice President of the National Institute of Urban Planning in the early 2000s, gives a convincing interpretation: recognising that this experience has an innovative capacity of proposal and interaction with the European framework and regional activity, he however does not recognise the transition from the declaratory and proactive dimension to the operational one. Furthermore, the Territory Project, necessarily having to deal with the fundamental articulations of European territory policies (polycentrism and functional areas), ends by often coinciding with the infrastructure project. Ultimately its application is conditioned by the disciplinary approaches, which are still uncertain amidst a unitary conceptual dimension of territorial governance, where traditional urban planning is hard to accept, and a 'dialectal separation' of the different elements (legal, economic, project, evaluative) converging on the project (Properzi 2015, p. 21).

From Properzi's review derives a further interdisciplinary reflection, linked to the issue of sustainability which must be read in terms of added value, not only as an outcome of the Territory Project but as a factor determining its success or failure. Sustainability in Europe is generally combined with the evaluation and a tradition that considers implicit the impartiality of the analyst either from the project or the cognitive frameworks and indicators used. Conversely, in Italy, both in the holistic tradition of the urban planning discipline and a utilitarian defence of the professional competencies, the project tends to prevail over the evaluation and, as a result, it faces lots of difficulties when establishing an evaluative practice referring to stable cognitive practices which are external to the project itself (Properzi 2015, p. 22), and exactly those where the geographers could fully express their own autonomous professionalism.

On the subject of the environment, another urban planner that could be considered unusual would be Giovanni Crocioni, who critically highlights the legal discrepancies within the triangle of sustainability-safeguarding-development. However, taking a look at the actual Country, he makes assessments on cities, territories and landscapes which are objectively not positive, yet without catastrophism: not all is lost and there are potential slow upgrading actions with strong commitment, which are certainly more complex against the prolonged stagnation and lack of resources,

both public and private, and perhaps affected in the extended suburban divestments, industrial species, in the North, and in the widespread illegal building, mainly in the South (Crocioni 2014, pp. 106–108). The strategic role of infrastructure and logistics for this purpose is indisputable.

Above everything is the need for an urban reform that must undergo territorial and institutional reorganisation, redefining and reassessing the competences between the Municipalities, provided that they are considered adequate from a dimensional point of view, the Regions, whose duty of landscape and territorial planning it is, and the State, which are entitled to the sheer priorities of the hydrogeological layout and the contrast to illegal building (Crocioni 2014, pp. 152 and seq.).

4.5   The Illusion of Administrative Reorganisation

The Italian governments have tried to deal with the problem of reviewing the territorial administrative framework in recent years, which is highly obsolete today regarding the transformation processes that took place mainly half-way through the last century: reform, as mentioned, substantially preliminary to the execution of new planning mediums. In the political and technical-scientific debate that ensued, the geographers have had an important role, via the oldest disciplinary research institution in the Country, the Italian Geographical Society (Società Geografica Italiana SGI).

Despite the criticism shown by the Regions' fulfilment of the competences given to them, attention was quickly focused on the 'vast area' intermediary body, the Province, probably because it is the weakest under a political profile and the one that had ended up flattened between Regions and Municipalities in the devolution of competences that were once State led.

Therefore, in 2011, Berlusconi's government, with a Constitutional Bill, proposed to abolish the territorial level of provincial government and to delegate to regional laws the institution of associative forms between the Municipalities for 'vast area' government functions, ensuring that the new sub-regional scopes would extend over no less than 3000 km^2 or would have a population of at least 300,000 citizens. The introduction of such thresholds was in contrast to the geographical territorial analysis approach, not taking into account position, morphology, population density, economic structure and territorial history. The outcome would have been to abolish 29[7] of the 110 existing Provinces, with a completely random

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[7] Verbano-Cusio-Ossola, Vercelli, Biella and Asti, in Piedmont; Imperia, Savona and La Spezia, in Liguria; Lodi, in Lombardy; Rovigo, in Veneto; Gorizia and Trieste, in Friuli Venezia Giulia; Piacenza, in Emilia-Romagna; Massa-Carrara, Pistoia and Prato, in Tuscany; Terni, in Umbria; Fermo and Ascoli Piceno, in Marche; Rieti in Lazio; Campobasso and Isernia, in Molise; Benevento, in Campania; Crotone and Vibo Valentina, in Calabria; Enna and Caltanissetta, in Sicily; Medio Campidano, Carbonia-Iglesias and Ogliastra, in Sardinia.

distribution. In short, generic conditions decided hastily would not have been ideal for ensuring if a provincial area was logical and functional rather than inappropriate, obsolete and useless.

From the identification of thresholds also moved the hypothesis of reorganisation advanced by Monti's government in 2012, characterised by a marginally redimensioning of the territorial threshold (2500 km^2), an increase in the demographic threshold (350,000 people) with the initial addition of a third threshold, referring to the number of Municipalities (not less than 50), later abandoned. After an attempt to receive direction from the ordinary statute Regions, a Bill was reached that reduced the number of Provinces, in those Regions, from 86 to 51[8] (including 10 Metropolitan Cities:[9] Turin, Genoa, Milan, Venice, Bologna, Florence, Rome, Naples, Bari, Reggio Calabria), leaving out the special-statute Regions where a deferred 6-month term was forecast.[10] Even in this case, the territorial administrative structure was only mostly aggregated but not really transformed.

The problem with regional borders was still unresolved, upon which, in time, advanced aggregation hypotheses came about from geographers,[11] research

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[8] The biggest cuts would have concerned regions in the North and Centre: Lombardy (from 12 to 7 Provinces, with the merging of Varese, Como and Lecco; Lodi, Cremona and Mantova; whilst Monza-Brianza would have been reincorporated into the Milan Metropolitan Area) and Tuscany (from 10 to 4, with the merging of Massa-Carrara, Lucca, Pisa and Livorno; Florence, Pistoia and Prato; Siena and Grosseto), followed by Emilia-Romagna (from 9 to 5, with the merging of Piacenza and Parma; Reggio Emilia and Modena; Ravenna, Forlì-Cesena and Rimini) and Piedmont (from 8 to 5, with the merging of Asti and Alexandria; Biella and Vercelli; Verbano-Cusio-Ossola and Novara). Yet, in Veneto, Verona would have been unified with Rovigo and Treviso with Padua; in Liguria, Imperia with Savona; in Marche, Macerata with Fermo and Ascoli Piceno. Northern Lazio (Viterbo with Rieti) and Southern Lazio (Latina with Frosinone) would have surrounded the Metropolitan City of Rome, whilst in neighbouring Abruzzo, L'Aquila would have been reunited with Teramo and Pescara with Chieti. Conversely, in Campania, the only merging would have concerned Benevento and Avellino. Still in the South, in Puglia, Foggia would have been united with Barletta-Andria-Trani and Taranto with Brindisi; in Calabria, Crotone with Catanzaro and Vibo Valentia. Finally, Umbria (Perugia with Terni), Molise (Isernia with Campobasso) and Basilicata (Matera with Potenza) would have seen the provincial and regional areas combined.

[9] The Metropolitan Area had been governed for the first time by Law no. 142/1990, which identified it in the cases of Turin, Milan, Venice, Genoa, Bologna, Florence, Rome, Bari and Naples, and similarly reproduced by the Law Decree no. 267/2000 (Consolidated Law of Local Authorities), whilst the Metropolitan City was recognised in Constitutional Law no. 3/2001, where predetermining cases are not identified, and application in Law no. 56/2014 (see below).

[10] In the meantime, the Sardinia Region, with Regional Law 28 May 2012 (the effectiveness of which would be then delayed) had decreed the elimination of the four provinces activated in 2004 (see note 6). In turn, the Sicily Region, with a vote from the Regional Assembly on 20 March 2013, basing on the Bill submitted by the Council, would have eliminated the Provinces to replace them with Associations of Municipalities, to then restore them in 2017.

[11] Francesco Compagna (1968) proposed the aggregation of parts of the Liguria territory, from west to east, respectively, to Piedmont, Lombardy and Emilia; parts of the Umbria territory to Tuscany, Lazio and Marche; the Province of L'Aquila to Lazio; Abruzzo and part of Molise to Marche; the remaining part of Molise and the Province of Potenza to Campania; the Province of Matera to Puglia.

institutions[12] and political parties.[13] The premature conclusion of the national Legislature suspended the issue for the umpteenth time.[14]

At the beginning of 2013, the Italian Geographical Society, which had never been questioned on the matter, organised a workshop on territorial reorganisation[15] during which it put forward its own proposal based on a single 'vast area' territorial level, moving away from consolidated studies on Italian urban framework in which it had participated, in agreement with the National Research Council (Consiglio Nazionale delle Ricerche-Progetto Strategico Quadroter 1999). The methodological foundation was given from the identification of Urban Systems (called Regional Platforms), starting from the aggregation of Local Work Systems[16] in Territorial Communities, based on the logic networks of gravitation → connection → relational capital. Meanwhile, the identification of the urban polarities was based on the political and socio-cultural roles exercised in the regional context, as well as on an appropriate demographic threshold and subsequent critical mass in terms of economic potential.

There was a tendency to rationalise the administrative division based on the actual social relations and the mid-range local activities, from which it seemed plausible to reconstruct the new overall layout of the territory, obviously by means of multi-sectorial reform processes. The proposal caught the interest of not only the media but also the Minister for Regional Affairs and Autonomies in Letta's

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[12] The Fondazione Giovanni Agnelli (1993) proposed the aggregation of Piedmont and Liguria; Trentino-Alto Adige, Veneto and Friuli Venezia Giulia; Tuscany and Umbria; Marche, Abruzzo and Molise; Puglia and Basilicata, for which the latter, as an alternative, followed the bipartition proposal between Campania and Puglia already proposed by Compagna.

[13] Still at the beginning of the 90s, the Lega Nord proposed a federal plan to aggregate Piedmont and Liguria; western Emilia and Tuscany; eastern Emilia, Romagna, Marche, Umbria and Lazio (excluding Rome, which would have become a District of the Capital); Abruzzo, Puglia and Basilicata (Buzzetti 1996).

[14] In the following legislature, the Constitutional Law proposal put forward (December 2014) by MP Roberto Morassut, from the Democratic Party, would have the same issue, which aimed to reduce the number of regions to the following 12: Alpina (Aosta Valley, Piedmont, Liguria); Lombardy (unaffected); Emilia-Romagna (now, including the Province of Pesaro); Triveneto (Veneto, Friuli Venezia Giulia, the Autonomous Provinces of Trento and Bolzano); the Appennines (Tuscany, Umbria, the Province of Viterbo); the Adriatic (Abruzzo, the Provinces of Ancona, Macerata, Ascoli, Rieti and Isernia); Rome Capital (the Province of Roma); the Tyrrhenian (Campania, the Provinces of Latina and Frosinone); the Levante (Puglia, the Provinces of Campobasso and Matera); the Ponente (Calabria, the Province of Potenza); Sicily; Sardinia.

[15] *The territorial reorganisation of the State Reflections and proposals of Italian geography* held on 8 March 2013 in the Society's headquarters, in the Palazzetto Mattei in Villa Celimontana, Rome.

[16] The Local Work Systems, according to the official definition from the National Institute for Statistics (ISTAT): 'represent a territorial grid, the borders of which, regardless of the territory's administrative structure, are defined using the flows of daily journeys from home to work (commutes) stated on the general Census of the population and homes'. This method of regionalising the Italian territory was proposed for the first time in 1986, by a work group from ISTAT, Tuscany Regional Economic Programming Institute (IRPET) and the English University of Newcastle-Upon-Tyne, on 1981 Census data. Since 2001, ISTAT has pursued research on Local Work Systems in collaboration with the Economics Department at the University of Parma.

Fig. 4.1 Territorial reorganisation hypothesis on 31 areas. (Italian Geographical Society)

government, Graziano Delrio, who urged the Geographical Society to improve the proposal, for it then to be abandoned, maybe due to the regulatory impact that it would have involved.

The Geographical Society, still continuing to develop the project, reached a double hypothesis on the territorial organisation of 31 areas (Fig. 4.1) or alternatively of 36 areas[17] (Fig. 4.2), which in turn became a subject of interest for local

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[17] This second hypothesis leaves the current administrative spaces of linguistic minorities unaltered (Aosta Valley, the Province of Bolzano) and proposes a series of alternatives to regionalising the North-East and Centre. Moreover, it recovers the "Straight Conurbation" (Reggio Calabria-

Fig. 4.2 Territorial reorganisation hypothesis on 36 areas. (Italian Geographical Society)

parliamentarians and administrators, even in the event of ascribing these areas with the regional competences included in the Constitution.

Meanwhile, Renzi's government initiated a Constitutional Bill (no. 1429/2014) which envisaged the abolition of the Provinces and the institution of the Metropolitan Cities (see note 9), emphasising the tools of the agreement, union and merging of the Municipalities already included in the Consolidated Law on Local Authorities

Messina) previously proposed by Gambi (1965b, p. 513), which would provide substance to the metropolitan qualification of the two cities envisaged by the recent regional and national legislation (see above).

(Legislative Decree no. 267/2000) with the purpose of streamlining and making administrative and governance duties more efficient. The division of competences between the State and the Regions was also revisited, with a clear tendency to recentralise many of them, amongst which was territorial governance.

The provisions of the constitutional reform on the territorial reorganisation were anticipated by the Law no. 56/2014 (*Provisions for Metropolitan Cities, Provinces, Municipality merging and unions*), which regulated the Metropolitan Cities of Turin, Milan, Venice, Genoa, Bologna, Florence, Bari, Naples and Reggio Calabria in compliance with what was set out in the 2001 constitutional reform, to be also valid as adoptable principles by the Regions of Friuli Venezia Giulia, Sicily and Sardinia in line with the corresponding special statutes. The territories of the Metropolitan Cities were identified as coinciding with those from the respective Provinces, without prejudice to the potential adhesion initiative to them on behalf of the Municipalities located in the adjacent Provinces.

The parliamentary process for the reform was concluded and approved on 12 April 2016, but the Referendum which it was subjected to, on 4 December of the same year, recorded a majority (almost 60%) of votes against.

The studies conducted by the Geographical Society, which have dedicated the 2014 Annual Report to administrative layout, have however left their mark, showing the ability to design response that could be successfully implemented for the territorial structure of the Country with the purpose of promoting the meeting between public administration, social demand, job and value creation (Società Geografica Italiana 2015).

4.6 The Geographers Have Worked on Planning Nonetheless

Despite all of the aforementioned limitations, the geographers worked on territorial planning, though in a non-organic way.

According to this essay, the author has encouraged data collection on this activity since the 1990s, via the Italian Geographers Association (AGeI), providing a survey where the requesting institution, type of plan or programme and the subject of the contribution provided by the geographer can be declared. The response rate was quite low: around 20 (less than 5% of the geographers registered to the AGeI), for a total of 54 works; even by direct knowledge, it can be argued that not all those that carried out this professional activity have answered.

On the one hand, however, the marginal role of geographers in planning is confirmed, but, on the other, the content is interesting, mainly due to the trans-scaling (from regional level, and in some cases national or transnational, to local) and the wide diversification type of the plans or programmes which the geographers themselves were called upon for contributions, sometimes too abroad (see Table 4.1). The Regions (11 works) and local bodies predominate all the commissioning institutions, but not only administrative bodies (Municipalities, 14 works, and Provinces, 7 works) but also technical bodies ('vast area' and water management Consortiums);

Table 4.1 Italian Geographers' planning activity (Own elaboration)

Geographer	Client institution	Year	Type of plan/Programme	Area	Aim of the activity
Massimiliano Bencardino	Municipality of Casalbore (Avellino)	2004–05	Municipal Urban Planning	Municipal	Strategic Environmental Assessment
	Municipality of San Marco dei Cavoti (Benevento)	2004–05	Municipal Urban Planning	Municipal	Strategic Environmental Assessment
	Municipality of Morigerati (Salerno)	2006	Productive Settlement Planning	Municipal	Strategic Environmental Assessment
	Ingegneria e Sistemi S.r.l. (Naples)	2007	*Municipal Urban Planning*/Implementing Urban Planning	Municipal	Strategic Environmental Assessment
	Applied research in agriculture consortium	2008–09	Integrated Rural Planning (Campania Region)	Regional	Impact analysis
	Sonted S.r.l. (Telese – Benevento)	2009	Strategic planning (Benevento City)	Municipal/town	Territorial analysis/thematic maps
	Municipality of San Mauro la Bruca (Salerno)	2017	Strategic planning	Local	Territorial analysis
	Solofrana vast area (Avellino)	2017	Strategic planning	Vast area	Territorial analysis
Marina Bertoncin	Enel S.p.A.	2017	Power Station reconversion (Polesine Camerini)	Economic/energy	Project assessment
Marina Bertoncin, Andrea Pase	Po-Adige Delta consortium	2016	Foce contract and internal areas	Vast area	Territorial planning
Sergio Conti	European Union	2000	*Régionspériphériquesmaritimes* Programme	Regional	Project structuring
	Piedmont Region	2009–10	Identification of project territories	Regional	Economic-territorial analysis
Fabio Fatichenti, Alberto Melelli	Province of Perugia	2003	Territorial coordination plan	Vast area	Landscape analysis

Fiorenzo Ferlaino	Piedmont region	2016	Regional territorial plan	Regional	Territorial analysis
	Piedmont region	2017	Extractive activity regional plan	Regional	Implementation study
Viviana Ferrario	Veneto region	2007–13	Regional territorial coordination plan	Regional	Landscape analysis
Dino Gavinelli	Municipality of Sesto San Giovanni (Milan)	2016–17	Urban regeneration project	Municipal/town	Selection committee
Piergiorgio Landini	Municipality of Montesilvano (Pescara)	1996–97	Variant of master plan	Municipal	Territorial analysis
	Autonomous Institute of Public Housing in Ascoli Piceno	1999	Urban requalification and sustainable territory development Programme (Valle del Tronto)	Vast area	Territorial analysis
	Province of Chieti	2001	Territorial coordination plan	Vast area	Scientific-technical coordination
	Municipality of Lanciano (Chieti)	2000–01	Urban traffic plan	Municipal/town	Territorial analysis
	Abruzzo region	2001–03	Regional urban planning bill	Regional	Coordination
	Province of Chieti	2002–03	Productive activity territorial plan	Vast area	Economic-territorial analysis
	Province of Teramo	2007–09	Area plan (lower and middle Tordino Valley)	Vast area	Economic-territorial analysis
	Municipality of san Giovanni Teatino (Chieti)	2008	Urban traffic and mobility plan	Municipal/town	Territorial analysis
	Province of Pescara	2008–09	Integrated territorial project	Vast area	Territorial analysis
	Province of Teramo	2011	Territorial coordination plan	Vast area	Territorial analysis

(continued)

Table 4.1 (continued)

Geographer	Client institution	Year	Type of plan/Programme	Area	Aim of the activity
Mirella Loda	Municipality of Florence	2005	Strategic plan	Municipal/town	Territorial analysis
	Ministry of Foreign Affairs and International Cooperation	2011	Strategic master plan (Herat – Afghanistan)	Urban	Territorial analysis
	Ministry of Foreign Affairs and International Cooperation	2013	Sustainable urban mobility plan (Herat – Afghanistan)	Urban	Project
	Ministry of Foreign Affairs and International Cooperation	2013	Development plan (Herat – Afghanistan)	Urban	Planning/coordination/territorial analysis
	Ministry of Foreign Affairs and International Cooperation	2015	Sustainable destination plan of historical cities (Myanmar)	Urban/regional	Coordination/territorial analysis
	Ministry of Foreign Affairs and International Cooperation	2016	Strategic plan (Bamiyan Valley – Afghanistan)	Regional	Coordination/territorial analysis
Lucia Masotti	River Po inter-regional agency	2005–07	Long-term framework agreement	Regional	Geo-historical analysis
	River Po inter-regional agency	2008–10	Long-term framework agreement	Regional	Geo-historical analysis
	Veneto Region	2011	Long-term framework agreement	Regional	Geo-historical analysis
Maria Mautone, Maria Ronza	Province of Naples	2005–06	Territorial coordination plan	Vast area	Territorial analysis
Mario Neve	Nomisma S.p.A.	2002	Urban requalification projects	Urban	Assessment
	Nomisma S.p.A.	2006	Provincial strategic plan (Ferrara)	Vast area	Assessment
	Nomisma S.p.A.	2006	Development plan (Mantova)	Vast area	Assessment
Marco Picone	Sicily Region	2001	Regional landscape territorial plan	Regional	Territorial analysis
	Municipality of Palermo	2016–17	Requalification of green urban areas project	Municipal/town	Organisation of participatory processes
Andrea Riggio	Municipality of Sora (Frosinone)	2013	Sustainable energy action plan	Municipal	Territorial analysis

Maria Luisa Ronconi	Calabria Region	2000	GIS for urban requalification (Cosenza)	Urban	Territorial analysis/thematic maps
	Calabria Region	2001–04	Regional civil protection Programme	Regional	Territorial analysis/thematic maps
	Ministry of Environment, Safeguarding for Territory and Sea / CNLSD	2004–06	Planning of areas at risk of droughts and desertification	Regional/national	Territorial analysis
	Calabria Region	2007	Integrated strategic project – regional ecological network	Regional	Thematic maps
	Ministry of Environment, Safeguarding for Territory and Sea/CNLSD	2007–13	Mitigation of the desertification processes (Calabria)	Regional	Scientific responsibility/territorial analysis
	Calabria Region	2013–17	Integrated management system for coastal erosion	Regional	Socio-economic analysis
Emilia Sarno	Municipality of Campobasso	2007	Territorial strategic plan	Municipal/town	Demographic analysis
Luigi Scrofani	University Delegate	2013	Technical round table for metropolitan cities	Regional	Functional analysis
	Municipality of Catania	2017	Permanent technical round table for urban planning	Municipal/town	Economic-territorial analysis
Luigi Scrofani, Vittorio Ruggiero, Luca Ruggiero	Municipality of Catania	2002–04	Master plan	Municipal/town	Methodology
Mauro Spotorno	Beigua Park Institution (Genoa-Savona)	2000	Park plan	Vast area	Territorial analysis/thematic maps

thus there are some State Ministries (Foreign Affairs, Environment), companies (amongst which is Enel, the biggest electric company in the Country) and private research centres (Nomisma, amongst the most recognised in the economic field).

The distribution over time almost completely falls in the 2000s. This seems to be regular and, as a result, decline or development of the geographers' professional activity in this field cannot be spoken about.

As for the types of plans and programmes, and therefore the respective spatial areas, more than half of the cases concern Territorial Coordination Plans and Sector Plans (agriculture, extractive activities and industrial activities) or Thematic Plans (hydrography, desertification, coastal erosion, landscape, urban systems) on a regional scale or even 'vast area', provincial and district level. The plans on a municipal scale are also multiple: urban planning, productive settling, urban regeneration, traffic and mobility.

Some interesting planning cases are highlighted commissioned abroad, in critical Countries such as Afghanistan and Myanmar, by the Ministry of Foreign Affairs and International Cooperation and the EU *Régions périphériques maritimes* programme. The lack of plans in protected areas, in the environmental field, is however surprising (only one, of the answers received), whilst there is a case of energy reconversion.

The geographer's role, as stated at the beginning, is predominantly that of a territorial analyst. From the details in the responses and those which are not reported on the table, it is inferred, however, as such a role is variably interpreted, relating to either the type of instrument or the scientific specialisation of the individual geographers whose the institution has wanted to use. What we simply define as territorial analysis generally comprises the physical features (geomorphological, hydrographical), demographic performance and settlement patterns, but often economic resources and localisation of productive activities are added; in some cases the analysis is geo-historical, whilst in others it is focused on cultural heritage and particularly the landscape.

There are some cases in which the geographer has had coordination and planning roles and was surely valued for their wide territorial knowledge and abilities.

Finally, thematic mapping is often produced, another tool that belongs to geography, and in particular for the developments linked to automatic mapping and the specialisation in managing the Geographical Information Systems (GIS).

4.7   Potential Convergences for the Future

In conclusion, it can be said that the relationship between geography and territorial planning in Italy is currently in a developmental phase, to the extent that the latter is going through a radical redesigning. In the past, despite integrated, systematic and strategic planning concepts introduced at the end of the 1960s, with the aim of strengthening its unitary and interdisciplinary character (Archibugi 2007), planning

has from time to time remained environmental, landscape, economical and above all, urban, emphasising the disciplinary separation rather than resolving it.

In this context, as was said, geography was left out of policies and planning practices and the wide geographical knowledge has scarcely been applied in them. The dichotomy between Social Sciences and Design Sciences, typical in the Anglo-Saxon area, has seen geographers more restricted to distributive and cartographic analysis prior to the plan. So, in the structuralist phase that has covered a great part of the twentieth century, geographical analysis has provided a functional support to the hierarchy of plans, adapting the regional concepts arising from the urban and industrial polarisation theories, whilst the planning was tighter in the legal restrictions, adapting the territory according to a logic of zoning responding more to the interests of strong powers than to the processes that were really under way.

At the end of the century, when the revolutionary geo-political changes and the subsequent transformation of inter-regional relations in the framework of global expansion orientated planning towards a substantial reassessment of the territorial knowledge, opportunities for a renewed contribution from geography emerged, the wide disciplinary spectrum of which is extended from the physical and environmental invariants to the economic activities and relations, with an interpretation of the differential and interactive dynamics that connected the subjects to the characteristics of the individual spatial contexts. In that way, a point of view that is internal to those contexts has been progressively adopted, proving the importance of the relations that link the actors to the territory and assessing the capacity of orientating the development processes.

The idea of territory as a cultural affiliation product and project created from the collective action of the subjects that work within it highlights the public support function for decisions, which finds expression in the trend for decentralisation of the competences of State powers, with the overcoming of the traditional planning styles from the top and the consolidation of new concerted planning styles inspired by the principles of subsidiarity, territorial equalisation and co-planning.

The geographical theory, in close inter-relation with other social disciplines, has refined models that, revisiting and innovating the classic definition of humanised region, propose the analysis of the relations between social interaction, territorial potential, governance and development in local systems. The latter are defined as a network of subjects which, due to the specific relationships that they maintain amongst themselves and with the environment in which they work (the so-called *milieu* of French geographical tradition), actually act as a collective subject. This is the condition for identifying the extension and the limits of the corresponding regional group, such as to respect 'the conditions of necessary geographical proximity so that the local networks of subjects capable of collective action are formed based on relations that implicate direct reciprocal knowledge, trust, sharing of contextual knowledge, interests and projects linked to a territorial, common capital and that guarantee a large participation' (Dematteis and Governa 2005, p. 32).

As a result, bottom-up planning is favoured, without having to completely reject the use of methods and tools of a functionalist extension: the conceptual progress is in the transition from a hierarchal point of view, which subjected the local planning

choices to those assumed by higher-level institutions, to the reticular approach, which favours the complementarity and the integration of the territorial transformation and development actions via scale crossing, until a global scale (Landini 2015, pp. 40–41).

In the Italian political framework, which is unfortunately characterised by a long inertia, in 2013, the National Urban Planning Institute addressed a plea to the political and parliamentary forces, holding that the territorial and urban plan must be the one to drive the transformation processes. It is a plan, however, reformed in a decidedly structural programmatic sense, and not in conformation with building rights, which will guarantee the necessary vision to the future of territorial layouts and which will constitute, for public projects, the institutional tool for counteracting the urban sprawl and the growing land consumption: a plan based on sustainable mobility systems that interconnect the new urban nodes, centres of excellence functions, of essential services and of public space, as well as on a territorial ecological network that will connect the areas with greater environmental potential, maximising the effects of regeneration of reproducible resources and the safeguarding of nonreproducible ones. The institute therefore asks for a national law on the fundamental principles of territorial governance, which will reform the obsolete current urban planning legislation (see above).

The geographers have expressed their full agreement on these principles. Is it not yet the time for a real convergence of the two disciplines, and of the major scientific institutions that represent them, to attain the attention and those specific measures deemed urgent from the ever clearer collapse of the Italian territory, both natural and constructed, which is inexorably reached?

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Part II
Relevant Topics of Study in Mediterranean Geography

Chapter 5
(Physical) Geography and Environmental Issues in Portugal

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Lúcio Cunha

Abstract The main aim of the present work is to draw a picture of the physical geography of Portugal in order to understand its contextualization in the framework of the Southern Europe Mediterranean environments. In this way, the research points out some of the main geomorphological, climatic, hydrological and biogeographic aspects and, at the same time, tries to synthesize some of the natural resources (climate, landscape, coastline) and natural hazards (forest fires, heat waves, floods, earthquakes) related to their environmental conditions. Thus, the author also seeks to reflect on the impacts of climate change on the country's environmental and geographic conditions with the intention to understand how the necessary mitigation and adaptation measures to the climate change can be articulated with the policies and practices of the territorial planning at different scales.

Keywords Portugal · Relief · Environment · Climate change · Forest fires

5.1 Geographical Knowledge of Portugal

With an area of approximately 92,225 km², of which 2322 belong to the Archipelago of the Azores and 802 to the Archipelago of Madeira, Portugal, in spite of its small size, is a very varied country in terms of physical, human and environmental features, geo-systems and landscapes, in addition to the natural resources found here and the natural hazards it faces.

It is perhaps because of this variety that so many geographies of Portugal have been published by reputable local and foreign geographers, in an attempt to understand and communicate the nuances of the nature and society of Portugal (Daveau 1992). As it is impossible to be exhaustive, the following is a list of some of the major works that explicitly refer to the nature and environments of Portugal: G. Pery (1875), B. Gomes (1878), H. Lautensach (1932-37), A. A. Girão (1941, 1942), O. Ribeiro (1945, 1955), P. Birot (1950, 1975), C. A. Medeiros (1976, 1987),

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B. Freund (1979), O. Ribeiro, H. Lautensach and S. Daveau (1987–91), F. Guichard (1990), J. Gaspar (1991), Portuguese Association of Geographers (A.P.G.) (1992), R. S. Brito (1993), S. Daveau (1995), P. Lema and F. Rebelo (1997), J. Matoso, S. Daveau and D. Belo (1997), C. A. Medeiros (2005), A. Domingos (2017).

Most of these works discuss the issues of Portugal's nature and society, linking them with each other and with the construction of different areas and landscapes and helping readers to understand the differences between the continent and the Azores and Madeira. At times, they obviously go much further and also link these elements with its natural resources, the impacts caused by their extraction and use and the hazards associated with the natural and social characteristics of the country.

5.2 Climate, the Underpinning of a Frankly Mediterranean Environment

As O. Ribeiro (1945) so wisely said 'Portugal is Mediterranean by Nature and Atlantic by Position'. Its nature comes directly from the climatic conditions, which are heavily influenced by the mainland Portugal's position between a band of dynamic subtropical high pressure, which has a decisive influence on the dry, hot summer weather and the area through which the disturbances of the polar front move, which determine the winter rainfall.

However, this generalised and simplistic characterisation masks an enormous diversity due to both the latitudinal distribution of continental Portugal, with a very much cooler and wetter north than south (Daveau and Coelho 1977), and its longitudinal distribution, i.e. distance from the sea, in which the inland areas may have annual and daily temperature variations 4–5 times greater than those on the coast (Daveau 1986), and, in particular, due to the orientation and size of the uplands, which increase precipitation and lower the temperatures but, above all, create a very pronounced climatic compartmentalisation between the land exposed to the moist winds blowing in from the West and the much drier areas on the leeward side. One example of the latter phenomenon is the role played by the mountains of the Alto Minho in differentiating between the damp climate of the Minho and the climate of Trás os Montes, which is much drier and has wide-ranging temperatures. This difference between west and east is highly influenced by the direction of the terrain, which runs N-S and NNE-SSW, producing two distinct situations within the general characteristics of the country's Mediterranean climate: one more Atlantic or oceanic and the other more continental.

In addition to this general difference, the increase in urban living has also had some significant implications for local climates. Today, the role played by some urban centres (Lisbon, Porto and Coimbra, among others) on the local climates (Alcoforado 1998; Ganho 1998; Monteiro 1993) is very obvious, with very marked heat islands during the night, especially during anticyclonic weather conditions.

5.3   The Land of Portugal

Despite its small size (88,500 km² on the continent), its geological and structural conditions and its essentially quaternary geomorphological evolution led to a very varied range of types of relief (Fig. 5.1) and landscapes, making the country an extremely diverse mosaic (Rebelo and Cunha 1991). The Iberian Peninsula is considered to consist of four big morpho-structural units, of which three are found in continental Portugal: the Hesperic Massif, the western (Lusitanian) and southern (Algarvian) Meso-Cenozoic borders and the Tertiary basins of the Tejo and Sado rivers.
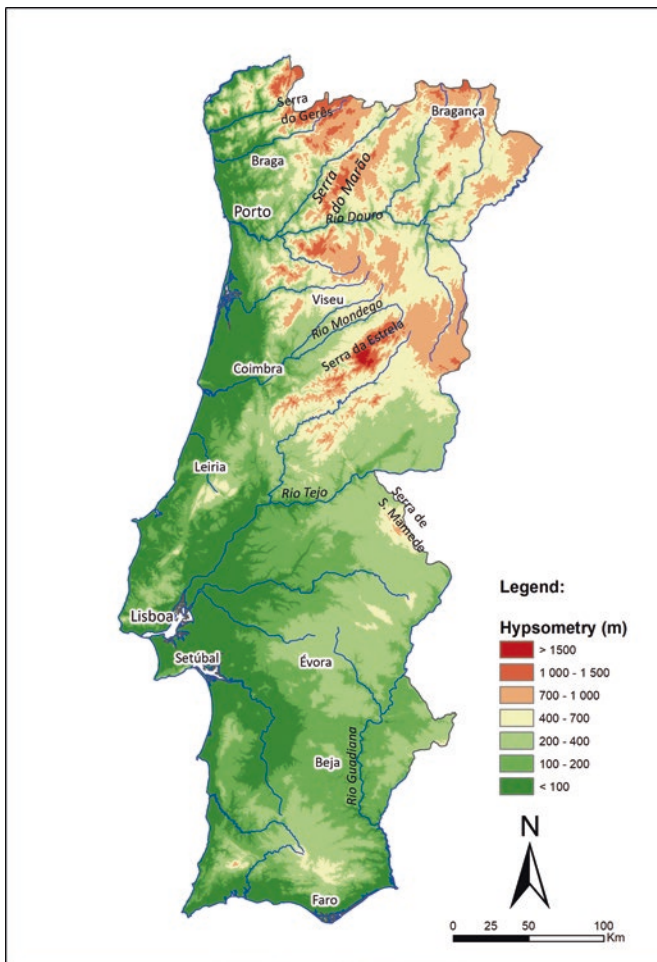

Fig. 5.1   The relief of mainland Portugal – Hypsometry

Granite and schist predominate in the Hesperic Massif, with quartzite and other metasedimentary rocks, which are responsible for the abrupt relief (1993 m in the Serra da Estrela, the highest point in continental Portugal) resulting from Alpine tectonics, with crustal weakness inherited from previous tectonic phases, especially the last of the Hercynian orogeny. This is young terrain, recently thrust up by tectonic movement and heavily dissected by the Quaternary river network. Many of these features rose up or were inserted onto flat surfaces inherited from the end of the Paleozoic era, but essentially worked during the Cenozoic era. Perhaps the best-known example of these is the Mirandês Plateau, at an altitude of some 700–800 m, which is one of the remnants of the northern plateau of the Iberian Peninsula.

The western and southern borders, made up basically of sedimentary rock, reach lower altitudes, and the main relief features are related with limestone outcrops, also the result of tectonic uplifting, giving rise to the limestone hills of Condeixa-Sicó-Alvaiázere, the Extremadura limestone plateau, the Serra de Montejunto and the Serra da Arrábida, which, despite being the major uplands, rarely go above 600 m.

The so-called Tertiary basins of the Tejo and Sado rivers are tectonic basins, where, during the Cenozoic era, continental sediment and limestone from the marshes and sea were deposited on the rocky structures of the border and even on the Hesperic Massif, forming an only slightly deformed table-like relief that rarely goes above 200 m.

A reference is also due to the flood plains of the terminal sectors of the main rivers (Vouga, Mondego, Tejo, Sado and Guadiana), which were carved into the soft materials of the ridges or the Cenozoic basins, demonstrating the recent formation of the valleys, in the Holocene. These plains have strong geo-human significance (especially because of their importance for agriculture) due to the recent filling in of the deepest valleys, which were carved out in the final glacial period. Some valleys were then invaded by water from the ocean (Flandrian "Rias") and were progressively filled with fluvial sediment, following the torrential regime associated with the Mediterranean character of the climate.

Finally, a presentation must be made, also unjustly brief, of the characteristics of the coastline as it is responsible for the location of many of Portugal's major cities and the development of various economic activities, especially beach tourism, and has a particularly high environmental and cultural value. The coast of continental Portugal measures some 943 km from the mouth of the R. Minho at Caminha (Viana do Castelo) to the mouth of the R. Guadiana at Vila Real de Santo António (Albergaria 1991). It has rocky shores with cliffs and sandy shores with beach-dune systems, interspersed by the estuaries of the major rivers that flow out there.

The cliffed coasts are linked either with rocky outcroppings of the Hesperic Massif in the north, granitoids north of Espinho and in the Serra de Sintra and schist in the Alentejo south of Sines or with sedimentary rocks, generally limestone (e.g. Cabos Mondego and Espichel), limestone-marl between S. Pedro de Muel and Sintra and the western Algarve or sandstone in the western Algarve, which evolve more rapidly.

The sand coasts can be of three types (Albergaria 1991): straight, narrow, sloping beaches at the base of cliffs; crescent-shaped beaches in small bays protected by

cliffs (e.g. Nazaré, Guincho); and beaches linked with large dune systems that are associated with the estuaries of rivers with well-developed shallows as in the Aveiro lagoon area, the estuary of the Vouga, the Figueira da Foz area, the mouth of the Mondego and areas associated with the estuaries of the Tejo, Sado and Guadiana. Fine sand beaches are associated with the dunes formed at the top of the beach that give way to primary dunes, parallel with the coastline and mutually dependent on each other.

The estuaries are fed by the major, generally long rivers flowing from inland (Douro, Mondego, Tejo, Sado and Guadiana) and the big lagoon systems of Aveiro on the west coast and Ria Formosa in the Algarve. Because of the tide dynamics, the mixture of water they provide and their size, estuaries and lagoon systems are responsible for the existence of special ecosystems and warrant special attention in terms of nature conservation and protection.

5.4 Semi-torrential Rivers and River Systems

Because Portugal is part of the Mediterranean climate band, Portugal's rivers are, in many cases, peninsular, with their sources in Spain (the Minho, Lima, Douro, Tejo and Guadiana) and can be characterised as being semi-torrential, with a dramatic variation in their flows inter- and intra-annually. Taking as an example the R. Mondego, which is the largest river with its entire length in Portugal (258 km), before its regularisation in the 1980s with a number of dams or, in other words, when flowing naturally, at the city of Coimbra the ratio between the weakest flow in the summer and the strongest flow in the winter could be around 4000 to one (from 1 to 4000 m^3/s). The torrentiality of this pluvial hydrological regime (since little snow falls on the major hills) was, and to a certain point still is, responsible for the serious rises in level and the calamitous flooding in the winter and also at times in the autumn and spring, especially in the lower reaches of the river, the so-called Lower Mondego. As the R. Mondego has been regularised with a number of dams, flooding is now less frequent in this river, but it does continue and causes damage on the Tejo floodplain, the terminal sector of the Douro and many other small water courses in the country.

On the other hand, the growth of cities and poor urban planning, with inappropriate occupation of the land, either badly planned or just badly executed, often leads to a number of cities having flash floods, caused essentially by the intense autumn or spring rains and the serious impermeability of the urban grounds. People still remember the Lisbon floods of 1967, which led to over 500 deaths (Rebelo 2001), but many other floods of the same type, if without the same consequences in terms of human lives, have occurred in Lisbon (e.g. November 1983) and in other big cities around the country.

5.5 Vegetation in Constant Change

Because of the intense human occupation of the Mediterranean regions since ancient
times, it is not easy to find extensive remains of plant formations that show a sys-
temic balance between the relief, the climate and the soils. This situation is also
found in Portugal, where plant formations, and forest formations in particular, have
a very high degree of artificiality, as demonstrated by the rarity of native species
and, especially, the introduction of commercially valuable exotic species (eucalyp-
tus is the most notable example).

In Portugal, the meeting of Mediterranean and Atlantic influences is still
expressed today in the distribution of what remains of the native tree species. In the
north deciduous forest, species typical of temperate maritime regions (such as ses-
sile oak and Pyrenean oak) are found; and in the south evergreen species (cork oak
and holm oak), more typical of Mediterranean influences are found. The transition
between these two major groups is marked by the presence of the Portuguese oak
with its marcescent leaves on the coast between Setúbal and Figeuira da Foz and, in
particular, the limestone massifs of the western Meso-Cenozoic border.

However, the native forest formations were significantly altered and even pro-
gressively supplanted by agricultural land and pasture. They were destroyed because
of the need for wood and charcoal, and the original species were replaced first by
the maritime pine and then eucalyptus, which gave a higher commercial return,
justified by the presence in this country of several pulp mills. More recently, the
demographic outflow from rural areas and agriculture, especially in the centre and
north of the country, has led to the abandonment of forested areas. In conjunction
with the climatic conditions, this situation is responsible for the forest fires that,
unlike in other European Mediterranean countries, have intended to increase in
number, in the size of the areas burned and in the ecological, economic and social
consequences that they entail.

Overall, environmentally protected areas are enhancing the presence of some
remnants of native forests and Mediterranean shrub formations, such as the maquis
and garrigue scrubland of the limestone massifs or some formations characteristic
of estuaries, coasts and dunes.

5.6 Azores and Madeira

The archipelagos of the Azores and Madeira extend the territory of Portugal into the
Atlantic Ocean. They are responsible for a great part of the continental shelf and the
exclusive economic zone in the Atlantic. These are archipelagos whose volcanic
origin marks the general and detailed morphology of the islands and, with it, the
climate, hydrological conditions and vegetation and even, in some cases, the way of
life of their inhabitants.

Almost 2000 km west of the continental shore, the Archipelago of the Azores is
situated on the great mid-Atlantic rift that separates the Eurasian and African plates

from the North American plate. It is made up of three groups of islands (eastern: Santa Maria and São Miguel; central: Terceira, Graciosa, São Jorge, Pico and Faial; and Western: Flores and Corvo). The oldest and most easterly island, the Island of Santa Maria, includes Miocene limestone sediments in its composition. All the islands exhibit volcanic features, more or less degraded, in their composition and in the case of the islands of São Miguel, Terceira, São Jorge, Pico and Faial eruptions have been recorded in historical times. The most recent big eruption on the islands was the Capelinhos volcano (1957/8), which is still remembered in the collective memory and culture of the islands. Like volcanic activity, earthquakes are frequent and at times can be destructive. For example, the earthquake on Terceira on 1 January 1980 led to the partial destruction of the town of Angra do Heroísmo and 73 deaths. The heavy, intense rainfall and the steep slopes are responsible for the frequent occurrence of mass movements, ravinements and even mud flows that can seriously harm the local communities.

The Archipelago of Madeira is made up of the islands of Madeira and Porto Santo, and the small Desertas and Selvagens islands. These are also volcanic islands, older than the islands of the Azores. Today, their volcanic features have been almost totally dismantled and are therefore not very obvious in the topography of the islands. On the island of Madeira, intense rain, steep slopes and the poor resistance of the pyroclastic material often give rise to flash floods, sometimes real torrents, known locally as *aluviões* (mudflows), with absolutely catastrophic effects. In recent years, the destruction of the vegetation by summer forest fires has reached the remains of the laurel forest, which is still well preserved in the center of the island, contributed to a significant increase in these dangerous erosive processes.

5.7   Environment, Resources and Natural Hazards

The characteristics of Portugal's nature and environment, based on its position in the global geological scheme, its morphology, the Mediterranean characteristics of its climate, its position on the Atlantic and the recent evolution of the ecosystems (especially the vegetation), have provided the country with invaluable resources but also are responsible for certain hazards. And when these hazards are not countered by suitable planning and land management, they can threaten the sustainability of development.

In terms of resources, it can be said that there is an abundance of metal and non-metal mineral resources (the value of metals is shrinking due to the situation on the international markets, while that of minerals is also decreasing because of the slowdown in civil engineering and public works), water resources and their use in agriculture, industry, energy production and domestic consumption, coastal resources (fish, salt), forestry resources, to list only the most important conventional resources. Less conventional but no less important, the country's landscapes and climate also have great significance as resources, especially for tourism, whether for classic sun and sea tourism or new segments, such as nature tourism, rural tourism and

geotourism. Regarding the climate, and in particular its Mediterranean characteristics, the absolutely dry, hot summers are the main reason for coastal tourism all around the Mediterranean basin and therefore this country too. However, on the Portuguese coast, the south-facing coastal areas of the Algarve and, less importantly, the Setúbal coast and the Costa del Sol, from Cascais to Lisbon, have better weather conditions than the long, west-facing coast, where morning fog and fresh winds from the north or north-east at the end of the afternoon affect beach going and bathing, lessening the value of the beaches (Cravidão and Cunha 1991). The landscape and its natural values (geomorphology, abundant water, a varied patchwork of plants) form an important resource for tourist activities on the coast and in the interior of the country, where many protected areas (especially the Peneda-Gerez National Park and the various Natural Parks) invite tourists or mere passers-by to enjoy the natural values. Recently, what is called geotourism has been increasing because of the natural and cultural landscapes, which are enhanced by the value of the landforms, the geological circumstances of the evolution of the Earth, water and soils, giving a scientific, cultural and economic significance to the formation of Geoparks (in the case of Portugal, the Geoparks of Naturtejo, Arouca, Terras de Cavaleiros, Azores and, very recently, Estrela).

As far as the natural hazards facing Portugal are concerned, the volcanic and seismic hazards in the Azores islands have already been mentioned. There is no volcanic hazard on the continent but there is seismic hazard, given the proximity of seismogenic areas, such as the Azores-Gibraltar fault. The great 1755 earthquake offers ample proof that the risk is on-going and also shows a possible link with a tsunami hazard, while other smaller earthquakes (such as the Benavente earthquake in 1909, a crustal earthquake) show the importance of active faults in the distribution and propagation of the effects of earthquakes.

The Mediterranean characteristics of the climate (the marked annual pattern and strong inter-annual variability in particular) are also responsible for some climatic hazards, both direct and indirect. Among the direct climatic hazards are heat waves (the most deadly in recent decades led to 2696 deaths in August 2003, according to Emdata – CRED; EM-DAT (2018)) and cold waves, strong winds and storms, snowfall, fog, frost and drought. The so-called indirect climatic hazards consist of geomorphic hazards (ravinements and mass movements, which occur more often in the north of the country as it has more rain and is more mobile from a topographical point of view) and hydrological hazards (progressive flooding of the major rivers: Douro, Mondego and Tejo; and flash floods of small watercourses that can cause great damage, especially in seriously impermeable urban environments).

One very special case, directly related with the Mediterranean climatic conditions and, in particular, the dryness of the summers is the risk of forest fires, which are responsible not only for great financial and environmental damage but also great social concern. Forest fires are a dangerous phenomenon that is considered to be mixed, i.e. their origins almost always involve human factors, whether direct or indirect (crime or negligence), but their geographical evolution and consequences follow the rules of natural processes (weather, land use, topography, layout of watercourses).

Because of the climate, forest fires especially affect the Mediterranean. Here they have a great impact not only on the environment, with the devastation of wide areas of plant cover, but also on the economy and society, with the destruction of forestry resources, homes and infrastructure and, in some more extreme cases, the loss of human life.

In southern European countries, owing to their Mediterranean climates, with a shortage of water during a good part of the year, and uncontrolled forested areas, forest fires have been increasing in alarming proportions in recent decades (Cunha and Gonçalves 1994; Lourenço 2004a, b; Pereira et al. 2006; Dimuccio et al. 2011). In Portugal, between 1990 and 2007, more than 1,600,000 ha of undergrowth and forests were consumed by fire (AFN 2008), the equivalent of over 17% of continental Portugal. Between 2003 and 2005, one of the most devastating series of forest fires in living memory occurred in Portugal. The fires resulted in the destruction of an area of over 750,000 ha (DGRF 2006) and 38 lives were lost. In 2017, over 500,000 ha burned and more than 120 people were killed, during two great heat waves somewhat outside the summer season as they occurred in spring (June) and autumn (October).

In spite of forest fires being linked with natural phenomena (climate, topography and plant cover), the socio-economic change and democratic trends demonstrated during the last half-century in the rural regions of the north and centre of Portugal are perhaps the major factor in the great increase in these areas' susceptibility to fires. Rural areas have been suffering an on-going loss and ageing of the resident population, with the resulting abandonment of cultivated agricultural areas, a reduction in the number of flocks and the animals per flock and shrinking consumption of undergrowth and secondary wood products (Almeida 2007). Vast agricultural areas comprised of smallholdings and very small properties were purely and simply abandoned or increasingly converted into single species forested areas, mostly of eucalyptus, that received little or no care and even less management. In addition, there has been a strong increase in risk due to an increase in the exposure of the population and their assets (homes, business and industrial establishments, infrastructure) that is taking place in two opposite directions: the encroachment of forested areas on rural populations, as a result of agricultural decline, and the encroachment of homes, businesses and urban infrastructure on these forested areas in the process of diffuse urbanisation that has characterised urban growth in this country in recent decades.

In Portugal, the amount of land consumed by forest fires is mostly controlled by two climatic factors: a relatively long dry period that starts at the end of spring or the beginning of summer (the effect of a long-term reduction in precipitation) and the occurrence of series of extremely hot, dry days associated with specific synoptic situations (the short-term effect of hot waves). In addition to these factors, which could increase in the near future due to the process of climate change to which the Mediterranean regions are particularly prone, the occurrence of forest fires and the areas devastated by them will continue to depend strongly on social factors associated with the demographic dynamics currently affecting rural areas.

5.8   The Example of the Forest Fires in 2017

In the fateful year of 2017, the forest fires were marked by two particular circum-
stances. One is the fact that they included huge, more dangerous fires that were "out
of season" as they occurred in spring and autumn. The Pedrógão fire, which burned up
53,000 ha and caused 66 deaths (AR CTI 2017), started on 17 June and the fires in
Pinhal de Leiria and the Coimbra and Tondela regions, which affected over 50,000 ha
and caused 45 deaths, started on 15 October (AR CTI 2018). That year more than
500,000 ha burned (Fig. 5.2), i.e. more than 50% of the total for all the countries of
southern Europe, and there were at least 114 deaths, more than 1000 companies
affected and over €500 million in damage just to public infrastructure and companies,
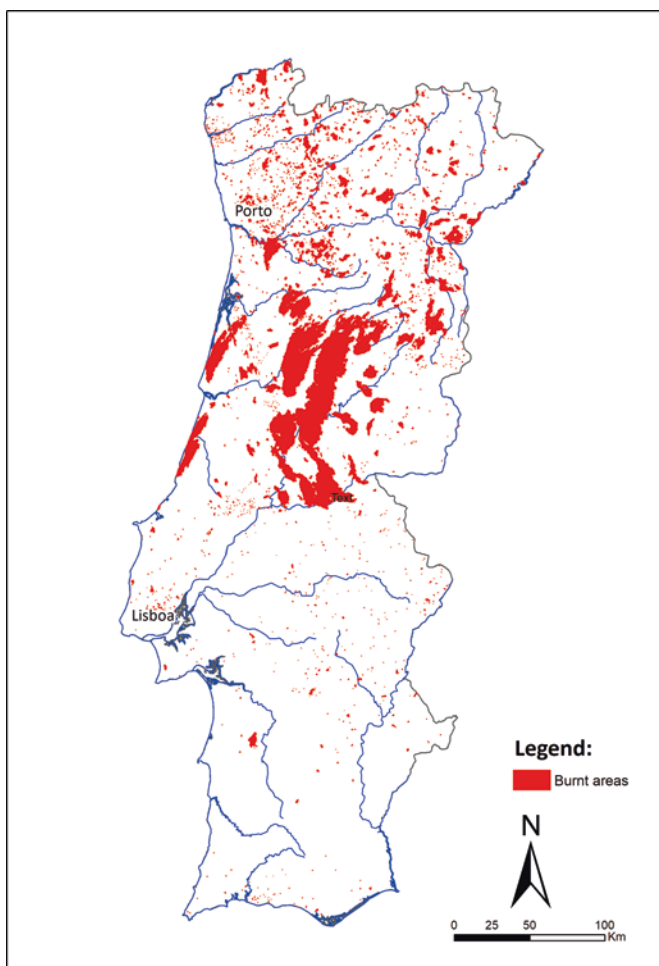in other words, without counting the damage to the forest and to rural homes.

Fig. 5.2 Forest fires of 2017 in Portugal – Burnt areas

The other unusual feature of these fires has to do with the fact that they were big fires related with special weather conditions that affected very different areas and populations. In regard to the weather, the fires of 17th to 23rd June were linked to anticyclonic circulation from the East that made the maximum temperatures in the central region of the country rise to around 40 °C, with a minimum relative humidity of 15–20%. The dryness of the vegetation was greater at that time of year because of the preceding low rainfall. On 15 October, the fires were linked to the circulation of air masses from the south: hot, dry air with strong winds circulating around the outer edges of hurricane Ophelia. Despite its being October, the temperatures in Coimbra reached 36 °C and the relative humidity fell to almost 35%.

As for the areas affected, while the June fires had what could be called a "classic" distribution, affecting predominantly rural areas and populations and small private properties in the centre interior of the country, in October their distribution was more dispersed and, in addition to rural areas in the interior, the public national forests on the coast to the north and south of Figueira da Foz and some industrial areas and even peri-urban areas were affected, causing damage and social concern possibly even greater than during the June fires.

5.9   Climate Change and Territorial Planning in Portugal

Climate change is a major environmental problem worldwide and little by little it is setting the agenda for environmental policy and territorial planning in the different countries and regions. Even though science has some doubts as to the mechanisms, values and consequences of climate change, it is now a reality accepted by the vast majority of the world's scientific community, the major economic agents, the political decision-makers in international organisations and big countries, environmental associations and, in particular, the social media (Teles et al. 2016).

According to the IPCC summary report for 2014 (IPCC 2014), because of emissions and the increasing accumulation of greenhouse gases in the atmosphere, there was an average increase in world temperatures of 0.85 °C between 1880 and 2012. This warming has been responsible for increasing the temperature of the upper layers of the ocean and an average rise in its level of around 19 cm since 1900. In more recent years, there seems to have been a decrease in mass of the Antarctic and Greenland ice sheets, with a similar drastic reduction in sea ice in the Arctic Ocean.

Setting the time horizon at the end of the twenty-first century, the IPCC presents a series of predictions based on different scenarios of the use of fossil fuels, expecting an average increase of 1 °C over the 1986–2005 period, if the more mitigating scenario is followed, and around 4 °C if the more conservative model of predicting greenhouse gas emissions is followed. This warming will be felt in the high latitudes, especially in the Arctic. Sea levels will continue to rise, so that it is expected that at the end of the century the increase will be around 40 cm, with the more mitigating scenario, or around 80 cm under the more conservative scenario. The changes

in annual rainfall, which is tending to drop, will also not have a uniform distribution. They will particularly affect the middle and subtropical latitudes (which include the Mediterranean belt), and it is very probable that the occurrence of episodes of extreme rain will increase.

Even if the more mitigating scenarios are adhered to, climate change will undoubtedly have a serious effect on physical systems, with shrinking glaciers and permanent snows, flooding, rising ocean levels and coastal erosion, biological systems, with the forced migration of species, in both marine and land ecosystems, and an increasing number of forest fires, and socio-economic systems, affecting food production, health and energy production.

The middle latitudes, the Mediterranean region and Portugal could be affected directly and indirectly on several levels (Santos and Miranda 2006) so that there is a need to analyse the problem and try to develop climate change mitigation and adaptation policies, on the national scale at the very least. These policies require a multi-scale understanding and approach, bearing in mind that the necessary and pressing resolution of local environmental problems, at the same time as helping to resolve the problems of the people, may also constitute, in some cases, a way of adapting to and mitigating climate change worldwide.

When these issues are analysed at the national level, in other words, as part of territorial planning policy, the major concerns are energy, water resources (either because of the processes of desertification and soil erosion or the country's agricultural production and food safety), ecosystem conservation, natural hazards and the health of the population. Thinking particularly of the implications of climate change for risks to the population, the issue should be tackled bearing in mind three types of area: the cities, countryside and coast.

In Portugal, almost half of the population lives in medium-sized and big cities. These cities are responsible for consuming almost 3/4 of the energy and emitting 4/5 of the greenhouse gas emissions (Lopes and Alcoforado n.d.). The different warming in the cities, caused by the so-called urban heat island, which is closely related to the size and structure of the city, may be accentuated by climate change, which leads to emphasising the problem of climatic hazards, particularly the hazard of heat waves, one of the most deadly in Mediterranean regions. Urban air pollution, currently produced mainly by transportation, is responsible for a high morbidity and mortality rate, especially in bigger and more densely populated cities with greater land planning problems. According to data from the European Environment Agency, in 2014, 632 years of life were lost per 100,000 inhabitants, just as a result of the concentration in the air of $PM_{2.5}$, a particulate material with a dimension of less than 2.5 μ that particularly affects chronic obstructive pulmonary diseases and cardiac diseases (EEA 2016). In 2013, this value was 570 years (EEA 2015), significantly less than the average figure of 898 years per 100,000 inhabitants for the 28 members of the European Union as a whole. Without any other reasons, these issues alone would mean that national land planning policies need to pay particular attention to the national urban network and to the structure and size of the major cities, so as to accommodate a different, complex demographic evolution and optimise the resources and the impacts of their use by the economy and society. At the same time

as these policies help with adaptation to climate change, they will contribute in some way to its mitigation nationwide.

In rural areas, understood as areas with low population density, the environmental problems are different and have to do in great part with demographic issues. The shrinking and ageing population, the agrarian structure with a prevalence of small-holdings in the north and centre of the country, the fragmentation of rural properties, the abandonment of agriculture and the increase in forested areas, with a poor registration system and a great lack of organisation, together with a lack of capacity on the part of municipal bodies to carry out the necessary forest management, make forest fires one of the major and most scandalous environmental problems in the rural areas of this country, where hundreds of thousands of hectares have gone up in flames over the years. Too often, in very different political and media contexts, climate change is invoked to justify the fires, which, although dependent on climatic conditions that are characteristic of the Mediterranean climates, have as their main cause an absence of forest planning and management. Here too, if for no other reason, it would be enough to think of forest fires to design national public policies that pay particular attention to rural, low-density areas, located above all in the interior of the country, and that try to work out, or at least suggest, some solutions for increasing the economic, social and therefore demographic density of these areas. Their valuable natural, rural, gastronomic and historical and archaeological heritage and the high social value of the ecosystem services that rural areas can provide are not enough to revitalise them with tourism and the so-called green economy. It is therefore absolutely necessary to have a policy for the rural communities, capable of promoting their development and mitigating the innumerable hazards to which they are subject, especially forest fires.

A similar rationale can be used to explain and correct the environmental problems of the coastal areas and, in particular, on the coast itself, where there are frequent problems of erosion on the beaches and cliffs that affect the people and their assets, especially during winter storms. Also, in this case, climate change is frequently called upon as being the major cause, due to a logic that ignores almost ostentatiously the role played by the dozens of dams on the major rivers in reducing the amount of sediment brought down to the coast and the role of heavy-handed coastal protection work, which very often just shifts the problem of erosion from one area to another. However, even if many of these problems are currently linked to the over-intensive and abusive use of most of this country's coastal areas, everything leads us to believe that climate change is not only going to intensify them but also to preclude some human uses of the coast in the coming decades. It is therefore necessary to discuss and implement comprehensive policies for managing coastal areas, so as to predict the future of land that is very valuable from the economic, social and cultural viewpoint, with a heavy population density at certain points and with a strategic importance for the development of the country.

5.10   Conclusion

To quote O. Ribeiro (1945) again 'Portugal is Mediterranean by Nature and Atlantic by Position'. Apart from its geological characteristics, these conditions and, in particular, the transition between them justifies the environment and natural conditions of Portugal; they are responsible for significant resources and natural hazards. If the Mediterranean climatic conditions are important resources for agriculture and tourism, with significat implications to the social dynamics they involve, the main source of many of the hazards to which Portugal is prone, such as droughts, heat waves and flooding can also be found in these conditions. The exposure of the country to the vast Atlantic Ocean obviously affects the climate and, in addition to all its cultural significance, it determines many of the environmental hazards faced by Portugal, particularly the coastal erosion. The transition between the two influences imposes rules on the distribution of vegetation, natural and anthropised, setting the conditions for the hazard of forest fires, among others.

The physical geography of Portugal, in the tradition of researchers like Orlando Ribeiro, Fernandes Martins, Susanne Daveau, Brum Ferreira and Fernando Rebelo, includes a good knowledge today of the physical characteristics of the country, even if it is more focused on geomorphology and climatology, also the topics of most doctoral theses in physical geography made in Portugal (Cunha 2013). It has also come to be the hallmark of studies of impacts, resources and hazards, helped by the necessarily interdisciplinary of these studies and the use, in terms of technique and methodology, of automatic cartography and the modelling of natural processes using Geographical Information Systems (GIS). This conceptual and methodological breakthrough is also responsible for an approach to human geography, an approach that is being tackled after decades of works that ignored it and which has helped to incorporate a knowledge of physical geography and environment studies into planning and territorial planning studies on different levels.

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Chapter 6
Climate and Water on the Spanish Mediterranean Coast: Challenges for the Future

Jorge Olcina Cantos and María Hernández Hernández

Abstract The study of two basic resources, climate and water on the Spanish Mediterranean coast, has evolved in recent decades in relation with the conceptual changes, changes of focus and of method that have taken place in Spain in relation with both concepts. Furthermore, in the current context of spatial sustainability, new processes have appeared that are marking the actions for planning and management of these two elements of the natural environment. This is the case of climate change and its associated effects, with repercussions, moreover, on the availability of water, where a change of paradigm has been recorded. Contrary to the traditional criterion of unlimited supply, the planning of water resources is now governed by the principles of demand management. An analysis has been made of the evidence of climate change on the Spanish Mediterranean coast and the changes in the regulation of water resources introduced in the last two decades. Lastly, an agenda is proposed with actions to be implemented in this region in the east of the Iberian Peninsula, to allow the conciliation of socioeconomic development and environmental sustainability.

Keywords Mediterranean coast · Climate · Water · Climate change · Water planning · Future challenges

6.1 The Study of Climate and Water in the Last Two Decades: Thematic Changes and Changes of Focus

The study of climate and water on the Spanish Mediterranean coast has progressed, in the last two decades, from conceptual and theoretical approaches to visions of an applied nature since these two elements are essential for the development of

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economic activities in this geographical area. In turn, increasing consideration is given to the risk component of both elements of the geographic environment, since growing pressure has been applied to natural resources in a context of changes in the physical environment, especially in its climatic component which is subject to an undeniable warming process. The last two decades have been plagued with transformations in the physical environment of the Spanish Mediterranean coast and with changes in the way such alterations are interpreted. The intensive use of natural resources has given rise, furthermore, to situations of risk that, in some cases, have been derived in crisis situations owing to the development of events of an extraordinary range. Natural resources and risks have merited various studies by Spanish geographers in recent years that have included conceptual, methodological and diagnostic aspects, as well as assessments of status and planning and management proposals. All of these have enriched the corpus of environmental analysis by Spanish geographers, incorporating new circumstances that have led to the incorporation of ideas, concepts and methods and where increasing weight is given, fortunately, to sustainability as the governing principle for spatial actions.

Table 6.1 shows the new topics that have arisen in the studies of climate and water on the Spanish Mediterranean coast over the last 20 years, in relation with the thematic and methodological renewal of geographic focuses and their adaptation to the spatial processes experienced in this dynamic geographic space.

These changes of focus have been accompanied by the appearance of regulations (European, state, autonomous community) that have favoured the applied focuses. This is the case of the regulations on land, water and environmental impact, which include the obligation to prepare reports and mapping of these elements of the physical environment, as resource and risk, in land-use transformation processes. Table 6.2 summarizes the processes of study, analysis and planning of the resources

Table 6.1 New focuses in studies of climate and water on the Spanish Mediterranean coast. (Own elaboration)

Element	Process behind change	New topics of study
Climate	Climate change and associated atmospheric risks	Effects of climate change on climatic elements, on water resources and on economic activities
		Increased temperature of the Mediterranean Sea and its climatic effects (risks and comfort)
		Atmospheric extremes and their effects on the territory
		Climatic risk mapping
Water	Demand-side planning and management of resources	Demand-side water planning
		Social behaviour in the light of situations of scarcity
		New "nonconventional" water resources (reuse and desalination)
		Water from risk to resource: rainwater harvesting and new urban drainage systems
		Proposals for adaptation of water quality according to requirements of use ("fit for purpose")

Table 6.2 Planning of resources and risks with regard to climate and water and the role of geography (2000–2018). (Own elaboration)

Element	Processes	Role of geography
Water	Water Framework Directive (60/2000)	Studies on planning and management of water: for and against the measures of the national hydrological plan (NHP)
	Water Law (2001, amended 2007 and 2016)	Creation of platforms for sustainable management and new water governance (new water culture)
	Law on the National Hydrological Plan (2001, amended 2005)	Preparation of studies and mapping of flood risks
	Preparation of new River Basin District Plans	Studies on hazards and vulnerability. New focus on risk analysis (role of the human being as creator of risk territories)
	Floods Directive (60/2007)	Studies on the relationship between climate change and water resources (for the purpose of planning)
	Important flood episodes	Studies on drought risk management
	Risk mapping. Creation of the National Mapping System of Flood-Prone Areas (SNCZI)	
	Drought management plans. New guidelines 2017	
	Autonomous community risk reduction plans (floods)	
Climate	Climate Change Reports (IPCC, 2007, 2013–2014)	Studies on climatic elements
	Climate Change Report Spain (2005)	Studies on atmospheric dynamic (isobaric connection processes: ENSO, NAO, WeMO)
	Autonomous community climate change reports (Catalonia and Basque countries)	Participation in international, national and autonomous community reports on climate change
	Intense episodes of atmospheric pollution in large cities	Studies on the effects of climate change: postures for and against the hypothesis of warming owing to the greenhouse effect
	Climate Change Bill (2018)	Studies on atmospheric pollution
	Proliferation of amateur meteorology associations	Participation of geographers in amateur meteorology associations

and risks linked to climate and water that have been developed on the Spanish Mediterranean coast between 2000 and 2018. It also indicates the role played by geography in each case and which has materialized in the form of studies, participation in research projects, official reports and plans or platforms for the defence of new values in natural resource planning (Olcina 2012).

The resources and risks of climate and water are at a nexus of union in the diagnoses of the analyses performed since the undue or excessive use of these resources in the area has led, in many cases, to the creation of risk situations and spaces (Olcina 2014). And the application of these processes in the territory shows that planning is, to a great extent, incorrect, inappropriate, inefficient or, simply, inexistent.

Significant changes have also been observed, however, from the point of view of consideration of these aspects since the 1990s (Hernández et al. 2016). With regard to both rainwater and wastewater, scientific literature points to a clear change of paradigm since, from originally being considered from the point of view of an environmental risk (floods, pollution, etc.) they have progressively come to be dealt with from the point of view of flows that can be harnessed (Sedlak 2014; Stec and Kordana 2015). In the case of rainwater and urban drainage, the changes in land use generated during recent decades in the urban and tourism nuclei of the Mediterranean coast have in many cases caused a disorganization and alteration of the natural drainage systems that, together with the proliferation of soil sealing, have led to an increase in the frequency and seriousness of diffuse flood episodes (López-Zavala et al. 2016). The increase of urbanized areas and the apparent inability of the conventional drainage systems to confront new urban growth, as well as the flows circulating in situations of high hourly intensity and the effects of sealing on the urban water cycle, have, since the 1990s, given rise to proposals of "sustainable urban drainage systems" (SUDS) which advocate the adoption of strategies that are more respectful towards the environment and the water cycle (Morote and Hernández 2017).

6.2 Climate: Resource and Risk – The Uncertainties of Climate Change

The increasingly evident manifestations of the global warming process have encouraged studies of its effects on the Spanish Mediterranean coast. Climate is a fundamental element for an understanding of the evolution of this regional space throughout history, and, especially since the middle of the twentieth century, it has been the foundation for the consolidation of a dynamic economy based on activities that depend to a great extent on atmospheric conditions (market agriculture and tourism).

Climate studies have undergone changes with regard to the topics analysed, in the light of the climate change processes that are forecast. And there has been an increase in approaches of an applied nature with the objective of preparing precise and useful analyses for the implementation of new land uses or the reduction of risk. Table 6.3, which follows, includes the new study topics in relation with the effects of climate change that have been undertaken in recent years on the Spanish Mediterranean coast.

The function of a geographic space is defined on the basis of factors that favour the development of economic activities. The existence of social dynamism, entrepreneurial capacity, the possibilities of access to natural resources, the development of fast transport and communication networks, the consolidation of financing mechanisms or the introduction of public policies are basic to the understanding of the greater or lesser success of the initiatives for economic development. All of these aspects comprise the set of endogenous and exogenous factors that, since the

Table 6.3 New topics of study in relation with the effects of climate change on the Spanish Mediterranean coast. (Own elaboration)

New topics of study	Temperature increase (warming)
	Increase of "tropical nights" (temp. > 20 °C)
	Loss of climatic comfort
	Changes in the seasonal nature of precipitations
	Increase in intense precipitations (hourly) and effects on urbanized spaces
	Changes in local wind patterns (breezes)
	Increase in atmospheric extremes (gales, heavy rain, heat waves)
	Climatic risk mapping

nineteenth century, have enabled the consolidation of the different forms of economic organization of the geographic area, with their evident socio-spatial effects. And, together with these, the existence of a natural environment with features that favour the activities introduced by societies that have developed in the area, are a basic component, especially in those sectors that depend to a large extent on these elements of the physical environment.

The excellent climatic conditions of the Spanish Mediterranean coast are ideal for the implementation of agricultural, leisure and recreational activities which are the main foundation for its economic development. The main climate characteristics can be summarized in: mild temperatures during a large part of the year, high number of sunny days (in other word, not cloudy), coastal breezes and sufficient annual rainfall for the development of the economic activities and to supply urban water demands. Added to the generally fair Mediterranean climatic conditions is the predominance of warm waters on the shore of the Mediterranean during the 6 months of summer, especially in the second half, when they are very propitious for sun and sand tourism (26 °C on average), still reaching around 21 °C in autumn.

Some of the effects of global warming are already apparent in the climatic elements of the Spanish Mediterranean coast. In general, Spain is a territory especially exposed to possible climate changes owing to its geographic position in the middle latitudes and in the Mediterranean basin. The Mediterranean coast is especially vulnerable, with a concentration of population and economic activities with a high economic value that may be affected considerably by the effects of climate change. Five atmospheric processes are already apparent in the features of the Mediterranean climate and which have direct implications on the territory and socioeconomic effects:

- Increase in atmospheric extremes (greater climatic hazard).
- General reduction of precipitations and, therefore, of water volumes available.
- Increase in the irregularity and hourly intensity of precipitations.
- Increase in average temperatures (0.8 °C in the last century).
- Increase in tropical nights, which have tripled, on average, on the Mediterranean coast as a whole, from 1980 to date.

Table 6.4 Changes in the main climatic variables[a] of the regions of the Spanish Mediterranean (2100 Horizon) (AEMET 2015; Arahuetes and Olcina 2019, p. 768)

	Catalonia	Balearic Is.	Valencian C.	Murcia	Andalusia
Max. temperature (°C)	+1.5 to +5.5	+2.5 to +5.5	+1 to +5	+2 to +5	+2.5 to +5.5
Duration of heat waves (no. of days)	10–35	10–25	5–35	10–45	7–27
Warm days (%)	20–50	25–55	15–50	20–55	20–50
Min. temperature (°C)	+2.5 to +5.5	+2 to +5	+1 to+4.5	+2.5 to +4.5	+2 to +4.5
Warm nights (%)	20–50	20–50	15–50	20–50	20–50
Change in volume of precipitation (%)	0 to+5	−5 to −10	0 to −10	0 to-5	−7 to −15
Change in intense precipitations (%)	0 to −5	0 to −2.5	0 to −7	+1 to −1	+2 to −5
Duration of dry periods (no. of days)	0	0 to +2	0 to +2	0 to +2.5	+2 to +4
No. of rainy days (no. of days)	+2 to +10	−5	−2 to +5	−2.5 to +2.5	−5

[a]The interpretation of these variables can be found at http://www.aemet.es/es/serviciosclimaticos/cambio_climat/result_graficos/ayuda. (Consulted: August 2018)

Related to these atmospheric processes, Arahuetes and Olcina (2019, p. 767) highlight:

> The report *climate projections for the twenty-first century* (AEMET 2015), as an update of the projections prepared in 2011, has handled three variables (maximum temperature, minimum temperature and precipitation) in the analysis of the modelled evolution of the climate in Spain for the forthcoming decades. It is interesting to highlight the values of different temperature and rainfall variables calculated in this report, with a 2100 horizon, for the regions of the Mediterranean coast, since the planning of economic activities and water planning itself, a basic factor to guarantee the supply of water resources in this large regional space, will depend on their future evolution. Table 6.4 summarizes the change values of the climatic variables for the territories of the Mediterranean coast of the Iberian Peninsula.

In relation with temperatures, the most notable aspect of climate change that is already apparent in the series of the principal cities of the Mediterranean coast is the considerable increase in hours of nocturnal heat, expressed in the increase of what are known as "tropical nights" (temp. > 20 ° C). From 1970 to date, they show a very notable rising trend, with their number actually tripling at present, compared with that base year (Fig. 6.1).

The rise in the temperature of the Mediterranean Sea is, without doubt, the base for this important increase in nocturnal heat which, furthermore, is a source of climatic discomfort in the cities of the Mediterranean coast. For the Mediterranean basin as a whole, an absolute increase has been estimated of 0.22 °C per decade, from 1973 to 2008 (Skliris et al. 2012). Shaltout and Omstedt (2014) have pointed out that the maritime sector of the Balearic Sea has experienced the sharpest
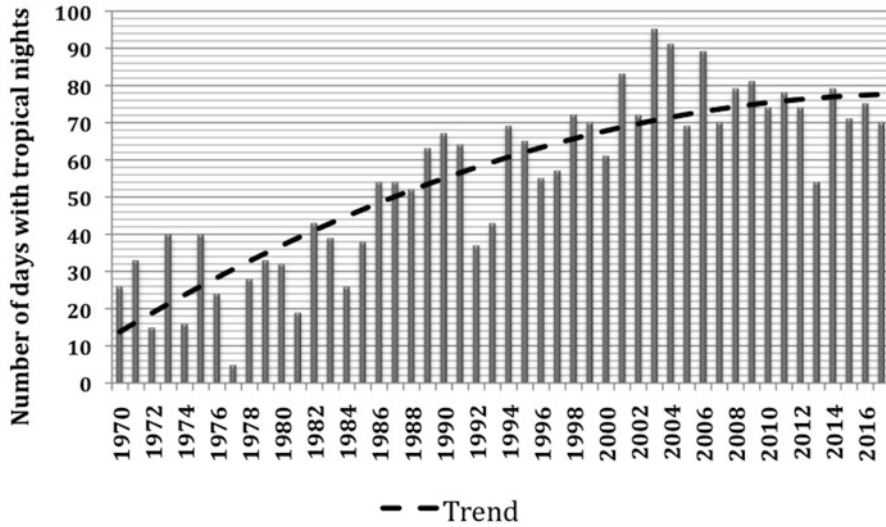
Fig. 6.1 Evolution of the annual number of "tropical nights" (>20 °C) in the city of Alicante (1970–2017). Observatory of Ciudad Jardín. (AEMET – Open Data, own elaboration)

temperature increase in the western basin of the Mediterranean (a rising trend of 0.033 °C/year between 1982 and 2012). In the central sector of the western basin of the Mediterranean (Balearic Sea), the increase of these, a surface temperature calculated from satellite images (NOAA), has been 1.3 °C from 1980 to date (Pastor et al. 2017). A significant detail is that the increased warming of the waters of the Mediterranean Sea off the coast of Spain especially takes place during the months of spring and early summer (April–June) and, to a lesser extent, October. Thus, confirmation is provided not only of the trend for an increase in seawater temperatures, which in the midsummer months can reach values of up to 28 and 29 °C (Fig. 6.2), but the above-mentioned prolongation of the annual period with warm waters off the Spanish Mediterranean coast.

With regard to precipitation on the Spanish Mediterranean coast and Iberian Peninsula, in recent year various studies (Arahuetes and Olcina 2019; CEDEX 2017; De Luis et al. 2010; Marcos-García and Pulido-Velázquez 2017; Serrano 2017) have pointed to the development of changes in precipitation. These studies show:

(a) Decrease in rainfall, although this is not uniform.
(b) An increase in the intensity of precipitation which is evident in the Spanish Mediterranean regions.
(c) A significant negative trend in the analysis of the maximum annual precipitation in one day, for the 1950–2012 period (Arahuetes and Olcina 2019; Serrano 2017). This means that a smaller quantity of total precipitation is accumulated in the most extreme events.
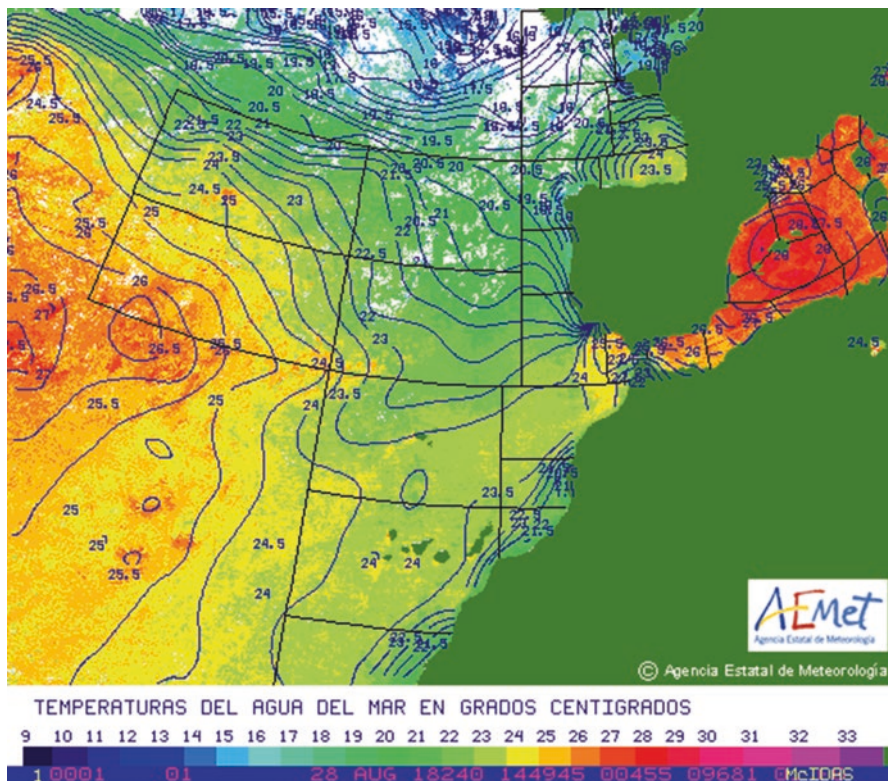
Fig. 6.2 Sea surface temperature in the western basin of the Mediterranean. 29 August 2018 (NOAA-19) (AEMET. Open Data)

(d) A positive trend in the contribution of intense precipitation to the accumulated annual totals, which means that the episodes of intense rain are more frequent, although the quantity accumulated in them is lower (Serrano 2017).

Taking into account these changes in precipitation, the study of rainfall extremes has become a priority subject in various studies. For the 1805–2014 period, González Herrero and Bech (2017) show that no records have been broken in the last 20 years with regard to absolute maximum quantity, but the values for intense precipitation in a short time span have become more frequent. Also worth noting is the fact that these record values for rain in less than 60 minutes have been recorded in weather stations located on the Mediterranean coast.

The increase in the intensity of rain (Fig. 6.3) is an aspect of great relevance for the planning of urban spaces and the problem of floods, which have been seen increasingly in recent decades (Olcina et al. 2010). The analysis of this matter in the city of Alicante serves as an example (Olcina 2017). Specifically Arahuetes and Olcina (2019, p. 768) highlight:
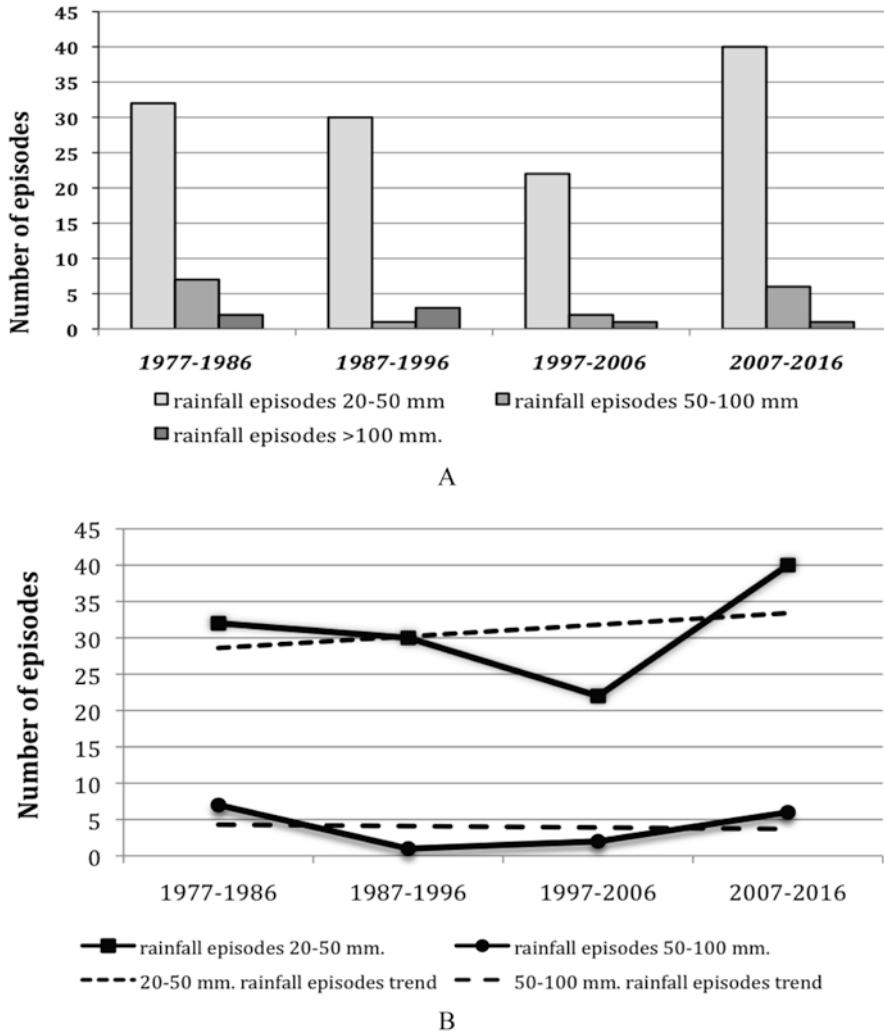
Fig. 6.3 Evolution (**a**) and trend (**b**) of precipitation episodes of hourly intensity in Alicante (1977–2016) (AEMET 2015; Arahuetes and Olcina 2019, p. 769, own elaboration)

- Episodes of short and intense downpours show a decrease in their number between 1977 and 2006, with a really significant upturn during the last decade.
- With regard to episodes between 50 and 100 mm, there was a significant reduction during the 1987–1996 period.

In summary, the climate of the Spanish Mediterranean coast already shows aspects of change, which may intensify in future if the forecasts of the climate models for the end of this century are accurate. This is an evolution towards a climate with more extreme features that requires the adoption of measures to avoid

considerable economic damages or the loss of human lives. This affects both temperatures, regarding which the effects of the progressive increase of average values, and of the hours of nocturnal heat and the increase in extreme events (heat waves), are already apparent, and precipitations, which have lost seasonal regularity and gained hourly intensity. It is not currently possible to establish a single, set period of torrential rains in the annual flood risk calendar. Episodes of this type can occur at any time of the year and not exclusively in autumn as was usually habitual until the end of the last century. And, moreover, excessive quantities of precipitation of above 300 mm/24 h. are not necessary to cause serious economic damage or human victims in conditions of great atmospheric instability with the downpour of abundant rains. Rains of between 50 and 100 mm. that fall in 60–90 minutes are sufficient for that. It is possible to affirm that the episodes of intense rain with flooding occurring on the Spanish Mediterranean seaboard are closely related to the increased temperature of the Western Basin of the Mediterranean Sea. This fact is at the origin of the intensification of the rainfall processes that has been recorded, since 2000, in localities of the Spanish Mediterranean coast.

6.3   Water: From Supply Paradigm to Demand Management

Studies on water resources have undergone changes with regard to the topics of analysis as a result of the increase in demand and the pressure on a resource considered to be of vital importance for socioeconomic development and the availability of which is conditioned by environmental, regulatory and economic factors. Table 6.5 shows the new topics in relation with water resources that were developed between 2000 and 2017 in the territory of the Spanish Mediterranean coast.

In Spain, during the second half of the twentieth century, the expansion of irrigated land, urban development, industrialization, the development of tourism activities and hydroelectric power meant a sharp increase in demand for water, exceeding, on occasions, the natural supply of available resources (Rico 2004). Regarding urban uses, a notable increase in water consumption on the Spanish Mediterranean

Table 6.5 New topics of study in relation with the water resource on the Spanish Mediterranean coast. (Own elaboration)

New topics of study	Urban development types and water consumption
	Demand-side planning and management of water resources
	Scarcity of resources and conflicts in access to water
	Incorporation of nonconventional resources (treatment and desalination)
	Incorporation of alternative water resources in urban areas (grey water and rainwater)
	Drought plans
	Governance and participation of agents in water management
	Social and institutional players, values and discourses related to water

coast has taken place, to a great extent, since the 1960s and 1970s, reaching maximum peaks at the end of the 1990s and the beginning of the twenty-first century (Gil et al. 2015). The increase in urban demand is related to the increase in population and in residential properties and urbanized land that has taken place in recent decades, especially coinciding with the latest real estate boom (1997–2007) (Burriel 2008; Lois et al. 2016). This has been based on the proliferation of low-density urban sprawl, characterized by high consumption levels (Rico 2007). In the city of Alicante, for example, consumption per property per day in detached houses amounts to 1052 litres, whilst in the compact urban development type (households without gardens or swimming pools), this is reduced to 244 litres (Morote et al. 2016). This is related to the presence of private garden areas and swimming pools, which may represent more than half of the daily water consumption of the whole household. The analysis of plant types and formations in the gardens, in which there is a predomination of Atlantic-type vegetation, not very appropriate for the climatic conditions, explains these high-water requirements. Some of the studies that have analysed these topics have been carried out in the Metropolitan Area of Barcelona (Domene and Saurí 2006; Parés et al. 2013), Girona (García 2013; Llausàs et al. 2018; Padullés et al. 2014), the Balearic Islands (Hof and Wolf 2014), Seville (Fernández et al. 2011), Zaragoza (Salvador et al. 2011) and in the province of Alicante (Morote 2017).

This increase in demand was accompanied by the different political administrations and regimes in Spain and by a "traditional water policy" (water basin transfers, reservoirs and groundwater harnessing,) based on an increase in the supply of water to attend to the growing demands. A paradigmatic action was the opening of the Tagus-Segura Aqueduct (ATS). The arrival of flows from the Upper Tagus to the Segura Basin was decisive in guaranteeing the supply for urban and residential-tourism uses and, to a lesser extent, irrigated areas (Hernández and Morales 2008). But it also generated notable expectations, both urban and for the transformation of unirrigated land into new irrigated areas, which, in turn, required obtaining new water resources.

The growing problems in environmental, social and economic terms associated with conventional measures such as the regulation of river courses by means of the construction of reservoirs and river basin transfers appear to have led to a general reconsideration of these solutions, as was demonstrated by the National Hydrological Plan of 2001 and the strong opposition faced by its principal project, the Ebro transfer (Saurí and Del Moral 2001). Based on the Water Framework Directive 2000/60/EC and on the appearance of movements such as the New Water Culture, different authors call into question infrastructures of this type in Europe. This is owing to their high level of environmental impact and the socioeconomic conflicts they generate between donor and recipient regions. And they also support the need to contemplate water planning alternatives that consider to a greater extent the preservation of water bodies, the environmental and cultural values of water, the participation of agents in water management and the demand-side management of this resource (Del Moral and Silva Pérez 2006; Ferreira 2013; Hernández-Mora et al. 2010). During recent years, the idea has been reinforced that water management should be

understood as an instrument at the service of an explicit spatial policy and that the latter, moreover, should be supported by the growing demand for integration between water management and sectoral policies, a key concept of the Water Framework Directive (Del Moral 2009). The progressive incorporation of this new focus has been favoured, furthermore, by the change of paradigm in the management of drought risk, one of the principal risks in Spain owing to its geographic position. There has been a change from initiatives integrated in what has been called the "crisis management focus" to a "risk management focus", measures of a proactive nature and aimed at prevention and mitigation of the impacts (Vargas and Paneque 2017).

Until the Iberian drought, recorded from 1992 to 1995, the solution to the problems of shortage of water resources was based on the possibility of obtaining, and making available to users, new volumes of water that guaranteed these demands. Priority was given to actions and policies aimed at generating a greater supply of resources without adopting measures to control demand (Morales 2001; Swyngedouw 2015). In support of these arguments, studies have been performed that relate the increase in water resources with a greater risk of hydrological drought (Del Moral and Giansante 2000; Hernández-Mora and Del Moral 2015; Morote et al. 2017a, b). The lack of water infrastructures, the increase in consumption or the precarious management of the supply have extended their effects to regions theoretically well-endowed with resources, such as the Atlantic Coast (Olcina 2001). As Del Moral et al. (2017) argue, unlike meteorological drought (which only takes into account precipitation in the affected area), hydrological drought is frequently merely the state that has been brought about by a policy of continued increase in water supply.

This period of scarcity in precipitation opened the debate on the need for integrated exploitation and management of the totality of potentially useful resources, focusing attention on what are known as nonconventional sources, which include treated wastewater and the production of desalinated water and, to a lesser extent, the use of rainwater and grey water (Rico et al. 2016). Together with the incorporation of these nonconventional resources in recent years, reference has been made to the possibility of using water of different qualities according to its final use. This is what is known as "fit for purpose" (Hernández et al. 2016). Higher quality water (desalinated water, conventional resources) can be set aside for human consumption, whilst that of a lower quality (reclaimed treated water or grey water) can be allocated to other uses such as watering the garden, washing the streets or agricultural uses (Morote and Hernández 2017).

Desalination was given a great boost with the National Hydrological Plan (2001) and the AGUA (Actions for the Management and Use of Water) Programme (2004). One of the central features of this programme was the replacement of the 1050 hm³ contemplated in the repealed Ebro transfer with resources provided by desalination. The adoption of desalination has been considered the most appropriate alternative supply to stabilize water balances in the deficit basins. On the one hand, it would put an end to the interregional conflicts and social tensions generated around the construction of water transfers. And, on the other, it represents an efficient measure in the light of scarcity of resources in the Mediterranean regions, accentuated in

periods of drought, thanks to the availability of a resource (seawater) that is independent from climatic conditions (Morote et al. 2017a, b). According to the Spanish Association of Desalination and Reuse (Asociación Española de Desalación y Reutilización, AEDyR), at the end of 2017, Spain had some 900 desalination plants, for both brackish and seawater, with a production capacity ranging from 100 to over 100,000 m^3/day and reaching a capacity of approximately 1.2 million m^3/day (438 hm^3/year) of which 700,000 m^3/day corresponds to the desalination of seawater (58.33%) and the rest to brackish water (aquifers). The highest production capacity for desalinated water on the Mediterranean coast is concentrated in the area served by the Taibilla Canals Association (Mancomunidad de los Canales del Taibilla, MCT) (San Pedro del Pinatar I and Alicante I and II plants) with 96 hm^3 (Fig. 6.4).

The adoption of this nonconventional resource has not been exempt from controversy linked to matters relating to energy dependence, the cost of this resource, the environmental impacts or its very consideration as a resource able to combat water scarcity whilst at the same time generating social scarcity linked to the final price of the resource, which makes access difficult for certain users (farmers and more modest urban classes) (March et al. 2014; Swyngedouw and Williams 2016). Together with these questions, reference is also made to the strategic nature of this resource and its substitution for other resources and drought situations.
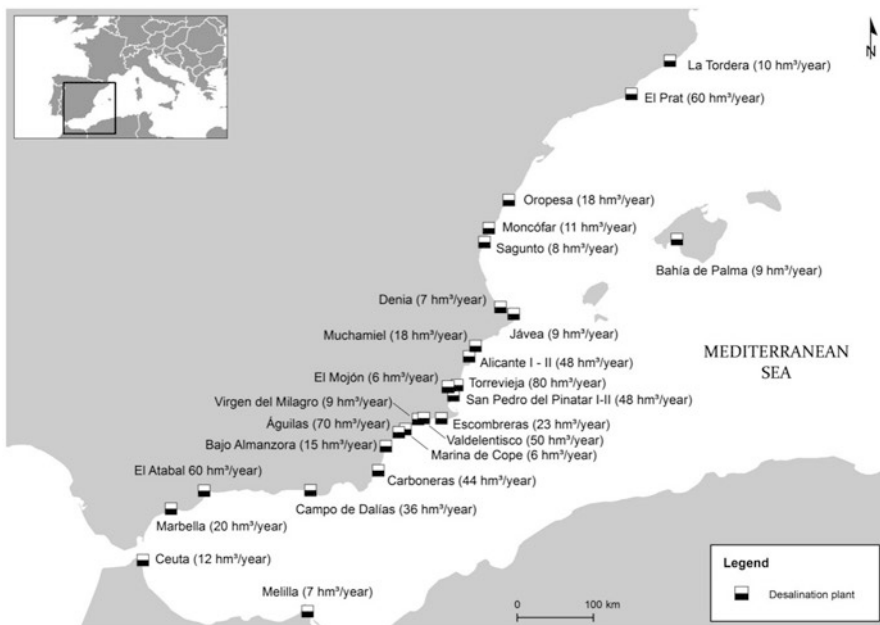

Fig. 6.4 Location of the desalination plants on the Spanish Mediterranean coast (Ministerio de Medio Ambiente 2006; Morote et al. 2016, Own elaboration)

Desalination has become a key water resource in arid and semiarid areas (March et al. 2015). In the Mediterranean Basin, for example, this resource is already considered an ordinary supply source in some regions and, especially, in many island areas. The incorporation of water from desalination to the water resources available in the Segura basin has notably reduced the drought threshold for urban uses. The population nuclei on the coast of this territory have been guaranteed a supply of water, regardless of the drought circumstances that may arise. During the drought of 2015–2018, transfers from the ATS were replaced by desalinated water, satisfying without problems the demands for urban (and in some cases agricultural) uses and avoiding cuts in supply and restrictions. Since desalinated water has been supplied (2003), water originating from the ATS represents 48.74% and desalination 20.25%. Its production has increased during recent years owing to the cuts in transfers from the ATS as a consequence of the drought. Between May 2017 and April 2018, a period in which the ATS was closed as the reserves in the headwaters of the Tagus were below the non-transfer threshold (400 hm^3), desalination has represented approximately 60% of the water supplied by the MCT. The 2017 was the year in which the most desalinated water was produced (85.3 hm^3) of the 96 hm^3 possible (88%). Its generalization as a substitute resource for the transfers from the ATS will be accentuated in the medium and short term because of the reduction of the intakes from the headwaters of the Tagus in light of more frequent drought episodes, increased demand in the headwaters and management rules that are more conservative and fairer for the donor basin (Morote et al. 2017a, b).

Reclaimed treated water has become an alternative to supply certain types of consumption and expand the supply of water resources. This interest increases, especially, coinciding with episodes of drought, since the pressure on conventional resources is reduced, allowing a greater margin for manoeuvre to guarantee the supply of potable water. The considerable development of these resources since the end of the twentieth century is due, partly, to compliance with the Water Framework Directive (WFD 2000/60/EC) and to the Community Directives 91/271/EEC and 98/15/EC on the treatment of urban wastewater which oblige wastewater to be treated before being discharged or reused (Rico et al. 2016).

According to data of the Ministry of the Environment and Rural and Marine Affairs, reflected in the National Water Quality Plan, in 2010 the volume treated exceeded 3300 hm^3, and there were more than 2533 Wastewater Treatment Plants (WWTP). Andalucía (545 treatment plants; 21.5%), Catalonia (281; 11.1%) and the Valencian Community (270; 10.6%) were the autonomous communities with the greatest number of facilities. According to Olcina and Moltó (2010) in that year, in theory, more than 4500 hm^3/year of water was treated, although its effective use (reuse) was limited to just 450 hm^3 (10%). According to the latest data available from the National Statistics Institute, in 2014, the volume of treated water amounted to 4942 hm^3, 530 hm^3 (10.7%) being reused. However, notable regional differences can be observed: 25% of all the volume reused in Europe is used in the Valencian Community and the Region of Murcia (Spain). The analysis on a regional scale reflects the relevance acquired by these resources in the regions of Murcia and the

Table 6.6 Volume treated and reused in Spain per Autonomous Community (2014). (Instituto Nacional de Estadística 2016)

Autonomous com.	Volume treated	Volume reused	% of water reused
Andalusia	732.1	57.3	7.8
Aragón	201.6	1.5	0.7
Asturias	201.5	13.9	6.9
Balearic Islands	122.3	55.6	45.5
Canary Islands	139.6	27.7	19.8
Cantabria	97.4	1.9	2.0
Castilla y León	390.6	3.9	1.0
Castilla-La Mancha	192.7	5.5	2.9
Catalonia	629.6	25.2	4.0
Valencian com.	419.8	248.9	59.3
Extremadura	162.1	55.1	34.0
Galicia	330.1	0.4	0.1
Madrid	613.8	14.5	2.4
Murcia	132.8	66.8	50.3
Navarra	78.8	0.0	0.0
Basque Country	425.9	6.7	1.6
Rioja, La	54.0	0.0	0.0
Ceuta and Melilla	16.6	0.1	0.6
Spain	4942.0	530.7	10.7

Valencian Community, both in terms of the percentage reused and in relationship with the absolute volume treated (Table 6.6).

With the passing of time, these resources have gradually gained weight, becoming an alternative source to mitigate water insufficiency in Spain (Pérez et al. 2014). This is connected to the growing concern regarding the availability of water in sufficient quantity and of sufficient quality, as well as the need to progress towards a focus on sustainability in the planning and integrated management of water resources (Del Moral 2009). And, in addition, in recent years use has been made of rainwater and grey water. The examples of the use of grey water and rainwater in urban environments refer to the metropolitan area of Barcelona associated with approaches of degrowth and the circular economy (Domenech and Saurí 2011; Domènech et al. 2013; Valles-Casas et al. 2016). The importance of these nonconventional resources (and with growing attention being paid to the use of rainwater) is accentuated even more if one takes into account the consequences of, and adaptation to, climate change, which constitutes one of the greatest challenges for societies on a global scale (IPCC 2014). In Spain, the highest number of actions for reduction and adaptation in light of climate change have been related to improvements in the management of energy and water, especially in areas with a shortage of water resources such as the Spanish Mediterranean coast and the Canary Islands (Gabarda-Mallorqui et al. 2017; Hof and Blázquez 2015), territories in which the importance of tourism as an economic sector is undeniable (Olcina and Vera-Rebollo 2016). Taking into

account the possible effects of climate change in the Spanish Mediterranean area, the policies for mitigation have been oriented towards new forms of diversification with alternative sources of water and towards water resource planning and management that lean increasingly towards demand-side management.

In parallel with the incorporation of new nonconventional resources, actions have been adopted from the point of view of management, in both urban and agricultural uses. Although between the 1980s and 1990s a spectacular increase was recorded in water consumption for urban uses, since the middle of the decade of 2000, a decrease has been observed in empirical lying urban areas of developed countries (Gil et al. 2015; Morote 2016; Valles-Casas et al. 2017). This decrease is due to an amalgam of multiple and interrelated causes, both structural and circumstantial, such as:

(a) The improvement in efficiency of the volume of water supplied associated with technological improvements and better management (installation of smart meters, control of leaks, fraud, etc.) introduced in the supply network to improve water performance and the volume of water recorded and billed.

(b) The installation of water-saving devices in the home and the presence of domestic appliances that consume water more efficiently. Their introduction has led to savings of around 40–60% in the use of washing machines and dishwashers compared to traditional models and 50% in dual-flush cisterns and baths (Gil et al. 2015).

(c) The increase in tariffs and the price paid for water and, at the same time, the decrease in the level of economic income of families since the beginning of the crisis (2008). Some authors argue that the tariffs and price of water are considered as a tool for the control of consumption (Arbués et al. 2003; Sánchez and Blanco 2012).

(d) A greater environmental awareness of the population linked to the encouragement of more sustainable practices in the use of this resource and fostered in many cases by episodes of drought March, Domènech and Saurí (2013).

(e) The use of reclaimed treated water and rainwater, as mentioned above.

Management of the demand associated with irrigation is connected to the efficiency of irrigation systems and the improvements introduced for their modernization. These initiatives are considered key for various reasons: (a) the agricultural sector is of considerable economic, social and cultural importance, being, moreover, the main consumer of water, and (b) the modernization of irrigation allows savings in water consumption but also an improvement in the management and efficiency of water resources, so that such savings can serve to meet environmental targets in both groundwater and surface water bodies. This interest is accentuated in river basin districts such as those of the Segura and the Júcar, where the deficit in water resources is greater.

6.4   Challenges for the Future in the Planning of Climate and Water Resources

The two major processes that are conditioning the recent evolution of climate and water resources on the Spanish Mediterranean coast (climate change and demand-side planning and management) imply the need to adopt measures to reduce their socioeconomic and spatial effects (Olcina 2013). Basically, it is a matter of planning the future exploitation of climate and water resources in order to be able to maintain a level of development in this regional space, which favours sustainability as the guiding principle for the actions to be undertaken in forthcoming decades.

The guiding principles that should be considered in the planning of these two elements of the natural environment in different economic sectors and territorial scopes are as follows:

6.4.1   Agriculture

Mediterranean agriculture should be based on quality productions that make prudent use of water. It should be pointed out that unirrigated agriculture, with no guarantees of auxiliary irrigation, may be seriously affected if intense droughts occur more frequently as shown in the climate change models for the Mediterranean region. Likewise, some crops will see changes to their cultivation calendar, and some cultivation practices will have to be modified. As for irrigated agriculture, this should adapt its productions to the existing water resources. An increase in production costs will be experienced because the proportion of areas irrigated with non-conventional resources will be higher. On the other hand, new crop varieties may be introduced (fruit trees) adapted to the new temperature conditions. Irrigated agriculture under plastic will reduce its production costs since the need to provide extra heating will drop owing to the reduction in cooler hours per year. Furthermore, greater coordination will be required between agricultural policies and the management of water resources. The creation of irrigated areas and the conversion of traditional unirrigated to irrigated crops have been encouraged in search of higher productivity, and new farmlands have been introduced without taking into account the impacts on water resources or the profitability of these farmlands. Taking into account the consequences deriving from uncoordinated actions, the need is imposed for the implementation of a state agricultural policy in which irrigation is contemplated from a perspective of efficiency in two respects, economic and social, causing the lowest environmental impact and respecting European guidelines, both with regard to the CAP and to the natural environment and the management of water resources. In this respect, it will be necessary to adopt the regulation of irrigated crops.

6.4.2   Tourism

For tourism activity, an essential component of the economy of the regions of the Spanish Mediterranean coast, climate change will entail alterations to climatic comfort, especially in the midsummer months, as well as the need to have a guaranteed water supply, of sufficient quantity and quality, in the light of the perspectives of the forecast alteration of the rainfall regime. The tourism sector must be prepared for the certain possibility of a prolongation of the calendar of the "high season" (currently centred on mass influx in the months of July and August) towards June (beginning) and September – beginning of October (end) which will be more appropriate months for tourism stays in this geographical area (Olcina and Vera-Rebollo 2016). The sector must tackle the need for climatic adaptation of tourism establishments, of residential properties and urban layouts to a more habitual situation of high temperatures and increased humidity, both day and night, in order to compensate for the thermal discomfort which is expected to increase in coastal areas, especially from the middle of this century (Olcina et al. 2018).

6.4.3   Water

The adoption of demand-side management in the planning of water resources on the Spanish Mediterranean coast is an indispensable process with no going back. Overcoming the traditional paradigm, based on the continuous supply of resources, which is not appropriate in a climate change scenario with less precipitation and a decrease in surface water resources, the growing use of "nonconventional" water resources is presented as a need for the forthcoming decades on the Spanish Mediterranean coast, within the paradigm of demand management and sustainable water use. It will be necessary to carry out improvements to the wastewater treatment facilities to obtain water that is adequate for the quality requirements of crops (tertiary systems and with desalination treatment) as well as the construction and improvement of infrastructure to allow the use of current flows. A relevant line of action is that relative to the perception of these flows by users. The rejection of their use by potential users may considerably condition their potential future use. In collaboration with the state administration, studies should be performed for the introduction of new strategic desalination plants for urban and agricultural use. This would involve seeking European aid aimed at reducing the costs of desalinated water, which should be considered a necessary resource in the areas of the Spanish Mediterranean coast with greater scarcity of water resources (Alicante, Murcia and Almería). Furthermore, actions should be encouraged for cooperation between urban and rural areas for the assignment of water between them.

6.4.4   Sustainable Spatial Planning

Management of the climate and water in a scenario of global warming poses a considerable challenge for spatial and urban planning. In addition to the need to advocate "zero-emission" territories and cities and with a decarbonized economy, territories should adopt sustainable planning of the land uses to be implemented. The handling of the "green infrastructure" tool should be assumed as a normal practice in spatial planning, together with the approval of municipal bylaws for adaptation to climate change and urban planning adapted to the new climatic conditions (green zones, sustainable transport). Cities, in collaboration with private agents of the sector, should have well-designed water supply systems to minimize the forecast reduction in available volumes of surface water. Lastly, specific protocols should be designed for civil protection and public health, since the risk calendars will be altered with regard to certain hazards with a climatic cause (storms and heavy rain owing to the presence of warm waters in the Western Mediterranean during a longer period of the year) as well as the frequency and intensity of the appearance of atmospheric extremes (heat waves and their effects on at-risk groups). Regarding this matter, it will be necessary to improve the systems for the drainage of intense precipitations in the cities of the Mediterranean coast with a view to reducing the sectors at risk of inundation and flooding and in turn to be able to make use of the flows which, conveniently treated, are inserted into the hydro-social cycles of the cities.

The Spanish Mediterranean coast is a territory at risk from climate change, its environmental effects and its associated risks (increase in atmospheric phenomena of extreme range, reduction of precipitations and surface water resources). The forthcoming decades will be decisive in confirming the current working hypotheses of the Intergovernmental Panel on Climate Change, improving climatic modelling even further to reach more detailed scales. The need to maintain climate research with a view to confirming all the details of the main working hypothesis (greenhouse effect caused by anthropic actions) should not mean inaction by the public authorities or private agents with regard to the measures for mitigation and adaptation that should be applied in the territories. On the contrary, the next few years are crucial for the design of policies in the light of climate change and the sustainable planning of water resources in this Spanish territory that will make it possible to anticipate the events that may develop. Geography has a fundamental role to play, as a spatial and social science, in the formulation of proposals that convert climate change into an opportunity for socioeconomic development according to the principles of environmental and spatial sustainability, overcoming the paradigm of growth without limits and predation of resources that has characterized recent decades with the effect of a radical transformation of landscapes.

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Chapter 7
Geographies of the South. The Study of the Rural Landscape in Portugal: Southern Unicity in Patterns and Changing Functions

Teresa Pinto-Correia

Abstract The landscape is the result of a complex and dynamic system where natural and cultural factors interact, perceived in a particular way by each observer. In Southern Europe, this interaction is particularly complex due to a detailed mosaic of natural conditions and a long history of human occupation. This complexity has been accentuated in recent decades, by overlapping multiple functions in the landscape or a successive replacement of some functions by others, not known before. In the South the multiple landscape functions are not segregated in space and time, but overlap and interconnect in the same space and at the same time, reflecting a hybridity formerly related to agriculture and now related also to other uses of the landscape. Thus, to understand the landscape, the description and classification of the pattern of spatial elements proves to be insufficient. In this chapter we describe the multiple changes ongoing in Southern European rural landscapes and the drivers that need to be considered to understand such changes, ranging from that hybridity to urban-rural and local-global linkages. The chapter proposes adaptive conceptual models to interpret the ongoing changes and finishes by raising awareness to the complex drivers now at play, which require novel management paradigms, if the character of the landscape is to be preserved.

Keywords Landscape · Landscape change · Landscape process · Hybridity · Drivers

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7.1 Introduction: The Landscape

The concept of landscape embraces a complex entity. It is acknowledged, among those who work with the landscape, that as a concept it relates both to nature and culture, interacting in multiple ways in a complex system. It corresponds to an area, containing everything that surrounds an observer. It is what can be seen by the observer, but it includes also the processes that created and continuously create what is seen. And it is related to the local scale, but at the same time, it is an area larger than a specific site, where the observer may be placed. It is therefore a multi-scale concept. Finally, the landscape is dynamic, e.g. it is under constant change (Pinto-Correia et al. 2018).

A commonly accepted definition of the landscape is the one proposed in the Florence Convention, the European Landscape Convention (ELC), from 2000 (Pedroli et al. 2013): 'landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'.

This definition embraces the action and interplay of natural and human factors. And it stresses that a landscape depends on the way it is appreciated by people, what reminds us that meaning and experience should not be separated from the area itself if we aim to understand landscape. Perception relates here not only to the visual appearance of the area in question but to how the area is experienced and understood more broadly. This strengthens the human dimension of the landscape as an entity that people interact with, and change, while at the same time being affected by this entity and by its change (Pedroli et al. 2016).

With this, also comes the role of the landscape in linking people with their local surroundings. Landscape is about space, and it has a spatial dimension, but it is more than just space or a section of the Earth's surface. Landscape is also about place: a more geographically 'bounded area' with its specific ecological and social functions and its own history which determines its character. This sense of place that is attached to the landscape has mainly an expression at the local scale (Selman 2012). The landscape can nevertheless be considered at multiple scales. The territorial expression of different activities from different sectors and the structuring features are more relevant at higher scales, where the landscape can be related to administrative units and therefore mainly to power relationships at different levels of governance – national, regional and local (Pedroli et al. 2016).

From an analytical perspective, there are thus different dimensions of the landscape that are always combined but can be differentiated by the geographer's lenses (Luginbuhl 2012):

(a) *Landscape structure or pattern* is the materiality of the landscape and is the way the area in question is composed physically by patchy, linear and point elements; this corresponds to a specific spatial pattern with its composing elements and the distribution of energy, materials and species in relation to the sizes, shapes, numbers, kinds and configuration of these different elements (Forman and Godron 1986).

(b) *Landscape processes* refers to different natural processes, human uses and human-driven processes, meaning flows of energy, materials and species among the components of the landscape (Bastian and Steindhardt 2002). They refer to the interaction between different elements of the landscape and correspond to internal functional relationships which make the system that the landscape is in itself. In the more classical literature within the landscape ecology approach, these processes were defined as functions (Forman and Godron 1986); we opt nevertheless to call them processes, to create a clear distinction to the other, more recent, identification of functions.

(c) *Landscape functions*, or in the more updated term *landscape services*, mean the capacity of the landscape to support different types of services which contribute to satisfy human needs and can thus be defined as the contributions of landscapes and landscape elements to human well-being (Bastian et al. 2014; Fang et al. 2015). Landscape services are diverse; they include food and fibre production, the preservation of biodiversity and habitats, protection of water quality and generally of environmental integrity, and support to leisure and recreation and local identity (Brandt and Vejre 2004). The literature is fertile in studies considering ecosystem services as something quite similar to what we here describe as landscape services. Landscape service is though more encompassing and refers to services provided at the landscape scale, by the landscape and/ or its composing elements (Bastian et al. 2014).

(d) *Landscape character* is the specific combination, in each location, of the biophysical and cultural geographical patterns, which provide its unique appearance and inspire the sense of place for those who relate to the landscape. The landscape character reflects the multi-sensorial and multi-faceted nature of landscape, and landscape's essential concern for people's relationship with place (Fairclough et al. 2018). The landscape character cannot be assessed without considering the relation people establish with the landscape. This dimension challenges the dominance of the visual in understanding landscape, and underlies the importance to landscape, of human agency and long-term change.

(e) *Landscape change* means the alteration in the structure and function of the ecological mosaic over time as a result of both natural and human-driven processes, which has an impact on the overall dimensions of the landscape. The relationship between the landscape structure and landscape functions makes a landscape dynamic, and it is in the tensions within this relationship that the background to landscape change and transition is to be found (Pinto-Correia and Primdahl 2012; Pinto-Correia et al. 2018). Causes of landscape change can be internal to the landscape systems, but are also often caused by external drivers, in different scales and levels of interaction.

The way the landscape is conceptualized by experts, and all those who deal professionally with the landscape, does not correspond to the common understanding of the word for the public and thus also for experts from specific fields and disciplines, who think of the landscape as it is commonly understood by the public. And contrary to other technical terms, which are not commonly used and require some

research of its meaning when they are found or used, landscape has a common use. Therefore, it is not object of a dedicated search before being used or being part of a dialogue. This often creates misunderstandings and mismatches. Landscape scholars and experts are using the term landscape as an integrative concept, while others may use it with a different meaning, while others they are talking or in another way communicating with, are understanding something else. In Mediterranean Europe this mismatch is accentuated, as a broadly shared attention to the landscape across different layers of the society, is rare, or is even non-existent (Pinto-Correia et al. 2006). In Northern and Western Europe, and even in France which is partially a Mediterranean country, there is a societal concern about the landscape, as the repository of nature and cultural values and identity support of the nation and of regions. This concern is not part of the Southern way of considering the territory.

Coming back to the term, we can provide the example of the word landscape in the Portuguese language. The word in Portuguese – *paisagem* – has foremost a visual and aesthetic meaning: 'a portion of territory that can be viewed at one time from one place, a view or panorama and especially a beautiful and attractive view with a natural or rural scene' (Loupa-Ramos and Pinto-Correia 2018). It is difficult to match this popular understanding of landscape with academic and technical definitions with a more holistic perspective based on the relationship between culture and nature in a complex and dynamic system. The duality in definitions has created successive misunderstandings and, together with the absence of a shared concern in society for the entity 'landscape', has left its marks on the way landscape has been treated in legislation and perhaps even more on how it has been used in practice.

We adopt in this chapter the definition of the Landscape Convention presented above. This is a technical and scientific definition. It is operational for the study and the production of decision-support knowledge about the landscape. We need though to be aware that there is a mismatch and want to highlight a hidden tension: this understanding of the landscape is not the one commonly spread in the public or within experts of different disciplines, particularly in Southern European countries where a landscape debate and care is not a societal concern.

Further, we conceptualize the landscape as permanently evolving and complex system, subject to multiple drivers, which converge at the local scale. The conceptual model proposed by Pinto-Correia and Kristensen (2013), in Fig. 7.1, expresses this understanding. Mainly it shows how the landscape cannot be understood without considering both the natural (biophysical) and structural components, and the socio-economic and cultural drivers. These multiple components and drivers act at different scales and all meet in the local scale. The landscape manager is the one who takes decisions directly affecting the landscape function and structure. The landscape user can generally not take these decisions, but by his/her choices and preferences, expressing the landscape demand as a public good creates opportunities and pressure for new forms of adaptive management. The landscape is as such a meeting platform and the adequate support to manage the interplay of these multiple drivers.
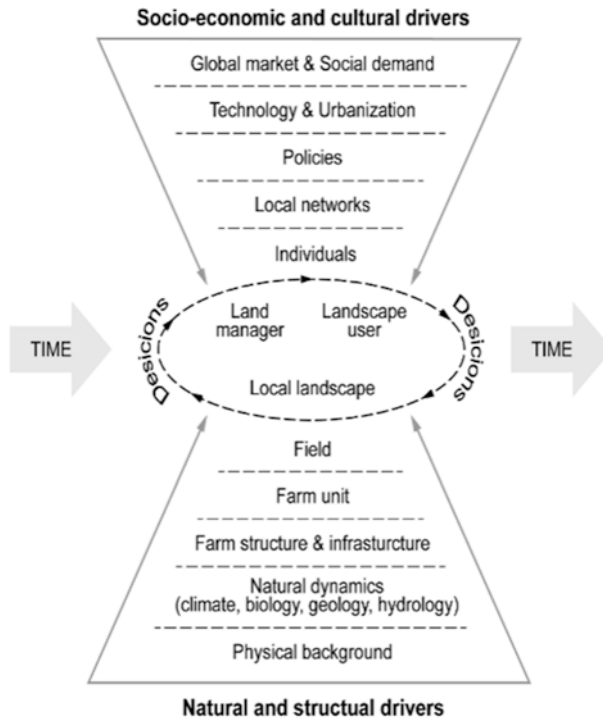
Fig. 7.1 The landscape in the interplay between structural and biophysical elements, on one side, and socio-economic and cultural drivers, on the other. These act at different scales, and all meet at the local landscape level, where both the land manager, who takes primary decisions, and the landscape user, who also takes decisions, on preferences and choices, also meet. As a system, the landscape is constantly changing over time (Adapted from Pinto-Correia and Kristensen 2013)

7.2 The Hybridity of South European Landscapes

The fuzziness in the structure of Mediterranean landscapes has been described in the literature, dealing with the landscape origin (Grove and Rackham 2001; Luginbuhl 2012), its appearance (Pedroli et al. 2007) as well as its classification (Van Doorn and Pinto Correia 2007).

7.2.1 Production Systems

In this chapter we focus on rural landscapes. In relation to landscapes of other regions of Europe, the landscapes in the Mediterranean region have traditionally been characterized by the intermixed land use, in complex systems combining trees, shrubs, pastures and crops, and by indefinite boundaries. This corresponds to the

Fig. 7.2 The fuzziness of Mediterranean landscapes: separate landscape elements and boundaries among elements are difficult to recognize; urban settlement is dispersed (Author)

famous Mediterranean land use trinity *silva-saltus-ager*, e.g. forest-shrub-crops (Grove and Rackham 2001)*.* In other types of landscapes, the image obtained with an aerial photo or a satellite image allows to recognize separate landscape elements and clear boundaries between such elements, such as forests, pastures, crop fields, hedgerows and riparian vegetation along a watercourse. In the typical Mediterranean landscapes, often the image shows a high degree of fuzziness in the spatial pattern, and boundaries between elements are not obvious (Fig. 7.2) (Barroso et al. 2012; Van Doorn and Pinto Correia 2007).

This fuzziness is related on one side, to the models of agriculture production. Mediterranean agriculture is determined by the need to adapt to unique climatic conditions: long summer droughts and rainfall concentrated in winter and spring, meaning that crops must either be sown in the autumn, harvested by early summer or, irrigated. The mild winters allow a variety of temperate crops to be grown. Traditionally, a typical Mediterranean *terroir* is composed of a mosaic of land uses: wheat and barley in the plain, with sheep and goats grazing the stubble, olives and grapes on the lower hills, patches of irrigated vegetables around settlements, pastures and wood and shrub areas in the mountains. This Mediterranean mosaic, called *cultura promiscua* in Italy (Pinto-Correia and Vos 2004), strongly dominates in regions of high population density and settlement dispersal and, otherwise, in the surroundings of small urban centres. It is therefore the everyday landscape of a large share of the rural population and the landscape type that has become known as the Mediterranean type.

Fig. 7.3 Intensive olive grove (irrigated): rationalization of structures and simplification of the landscape (José Munoz-Rojas, ICAAM-University of Évora)

In the last decades, agricultural intensification and specialization, followed by the adaptation of global models of land use and land management practices, resulted in radical changes in many of those landscapes (Primdahl and Swaffield 2010). Simplified landscape patterns with a simplified plot structure and clear-cut boundaries have become characteristic of many Southern European rural regions (Fig. 7.3). This has happened with large-scale vineyards expanding in the regions with particularly suitable conditions for wine productions and also with specialized large-scale irrigated crop production following dam construction and irrigation infrastructures. For vineyards, olive groves and vegetables, the specialization of production has resulted in the homogenization of the landscape and a clear reduction in the extent of the former Mediterranean mosaic.

Large-scale extensive silvo-pastoral systems seem to have remained quite unchanged. The extensive and multilayered land use systems create complex landscapes, being the most paradigmatic the agro-silvo-pastoral systems of Iberia (Almeida et al. 2013). In these production systems, cultivated and natural pastures are intermixed with diverse densities of shrub, in the under-cover, and combined with an open tree cover of cork and holm oaks with irregular densities. The result is a singular patchy spatial structure with a random distribution of elements. This pattern does not allow to clearly see in the landscape, the separation between plots or between farm units. In the same way, the change between the density of trees and the other is progressive, so that no clear separation between land cover classes can be easily detected (Fig. 7.4) (Van Doorn and Pinto Correia 2007). In the last decades,

Fig. 7.4 The agro-silvo-pastoral systems of Iberia: Montado in Portugal and Dehesa in Spain. A fuzzy pattern with a random distribution of trees and shrub (Cancela d'Abreu et al. 2004)

there have been phases of crop intensification, followed by livestock intensification. The cultivated annual crops in the under-cover have now almost disappeared, and the grazing density has increased with the support of fodder inputs from outside. These intensification trends lead to a decay of the system with a marked decrease in tree density (Godinho et al. 2016; Pinto-Correia and Godinho 2013). But the complex landscape structure is still unique (Fig. 7.4).

Despite recent and current changes, mixed and hybrid farming systems still prevail in many Mediterranean landscapes. The same composing elements, associated with a relative importance of permanent crops such as vineyards and olive groves, remain a differentiating characteristic of Mediterranean agriculture and, thus, also of Mediterranean landscapes.

7.2.2   *Decision-Making Processes*

Besides the nature of production systems, the fuzziness we mentioned above, in the start of this section, has another explanatory factor. There is a "heterodoxy" of Mediterranean agriculture with a high incidence of pluriactivity in farming and mixed family involvement in the farm units, which remains until today. This means there are different and multiple types of actors taking decisions as to the production systems and use of resources and that social and economic links between the urban and the rural have always been strong and dynamic, besides the supply of food.

Processes of change in agriculture are the aggregated outcome of multiple decisions by farmers, family farm members, collective organizations and enterprises. These are individual decisions, but they are strongly interlinked in a network which is constantly evolving by the change in actors, interrelations and dominant pathways (Noe and Alroe 2015). This is particularly complex in the Mediterranean. Farm-level decisions, which will have a direct impact on the landscape pattern, have close and strong links to the territorial context where the farm is integrated (Ortiz-Miranda et al. 2013). Therefore, the fuzziness of the landscape is also a result of the characteristics and processes in the territory, linking agriculture to the socio-economic and cultural characteristics. And in the Mediterranean, these territorial contexts are highly diverse, though predominantly less prone to innovation and rationalization than in other regions of Europe. Traditional, family and territorially based relations and networks, where the land is seen more as a family heritage than a production factor, are still today an important driver.

This characteristic has made Mediterranean agriculture less prone to follow agriculture development models based on productivism. For this reason, it is often classified as an agriculture which has been "passed over" or marginalized. However, by maintaining this heterodoxy and particular mixed production, it is also an agriculture which may have more potential to adapt and take advantage of the opportunities offered by new multifunctional rural development approaches (Arnalte-Alegre and Ortiz-Miramda 2013).

The heterodoxy in decision-making processes related to farm production and farm management has been recently complemented by emerging new motivations to become a farmer. The interest of urban dwellers in farming as a business opportunity or as a lifestyle has increased all over in Europe (Halfacree 2012; Wilbur 2014). And even those who search for the rural primarily as a place of residence and life quality may also embark on other land-based activities or adopt farming, or even market-driven farming, as an occupation. New farmers' profiles are therefore increasingly appearing all over Europe (Primdahl and Kristensen 2016). This trend has particular contours in the Mediterranean, where the new farmers are in many cases foreigners, coming from many other countries in Europe in search for the Mediterranean climate and way of life. They are also those more prone to innovation, in production, in internal organization of the farm or in linking to the value chain, therefore creating seeds of change impacting locally the remaining sector (Pinto-Correia et al. 2016, 2017). Considering the adverse context for innovation which is characteristic of Southern European farm communities (Ortiz-Miranda et al. 2013), the role of these newcomers can be of high relevance.

7.2.3   Urban-Rural Relations

The impact of urban newcomers to the rural and particularly to farming is a significant part of the new contours of urban-rural relationships and their impact in the landscape. Furthermore, the rural space in Europe has always been organized from

the villages and towns, by way of the market relations and the administration structure (Pedroli et al. 2016; Pinto-Correia et al. 2018). Therefore, it is not possible to understand the landscape outside the urban areas without understanding how it is organized from an urban centre perspective. With the ever-growing urbanization of societies and multiple functional linkages between urban and rural, this relation is even more central.

In North-western Europe, the appreciation of the rural landscape as support of life quality and leisure has become part of the urban-rural relationship already in the start of the twentieth century, with its exponent in England (Schama 1996). In Southern Europe industrialization started much later, and the rural remained solely a space of production until much late, being the new uses and valorization of the rural landscape, a recent phenomenon – though with significant impact today and still intensively growing.

The rural landscape is thus support of leisure and recreation activities, and related with them, of second-home residential use. In its most extreme version, the urban search for the rural is expressed in processes of counter-urbanization, e.g. the migration of people from the urban areas to the rural space (Primdahl 2014). There is thus an urban influence resulting in densification of construction in areas formerly used only by residents, with highest demand towards the attractive climate and landscape of Southern Europe. One of the results of this increasing demand is the rising of land prices, defined by the real estate market much more than by production outcomes from the land. This in turn may lead to a deactivation of farming and a feedback loop of development of nonagricultural landscape functions, linked with residence, tourism and outdoor recreation (Primdahl 2014; Primdahl et al. 2013). In landscapes of marginal value for farming, particularly for intensive and specialized farming, as in many areas of Southern Europe, the impact of this urban demand may be twofold: (a) preservation of the landscape pattern through investment in landscape amenities by the new residents and landowners, who maintain the structuring landscape elements, and (b) dismantling of the landscape quality through unplanned spreading of urban buildings and infrastructures and a progressive abandonment of the structuring landscape elements.

Furthermore, all the other processes of urbanization influencing the rural landscape are ongoing in Mediterranean Europe (Primdahl 2014): (a) traditional urbanization, e.g. the movement from rural hinterlands to urban centres; (b) suburbanization, e.g. movements from the urban centres to the urban periphery; and (c) re-urbanization, e.g. the revitalization of urban environment. Seen together these forms of urbanization mean changing urban as well as rural structures including urban expansion and rural depopulation. For the most peripheral rural areas in Mediterranean Europe, traditional urbanization together with emigration has resulted in a depopulation and ageing of the remaining population, to an extreme not seen in other regions of Europe. As for suburbanization, have particular contours in the Mediterranean part of Europe, as a result both of the high pressure and of less sharp planning policies and practices. These processes result in an increased fuzziness of the landscape structure, as urbanization processes expand across former rural structures and limits between urban and non-urban are increasingly not clear (Primdahl and Swaffield 2010).

7.2.4 *Local-Global Linkages*

While this is not a particular Southern European process, it brings a higher degree of complexity to the Southern European context, as it increases hybridity in networks and decision-making processes.

Urban poles are increasingly connected to other urban poles through economic, cultural and political networks on the regional as well as the global scale. Globalized food markets, as well as other markets, have developed exponentially along the last decades, and urban areas are connected, through multiscale networks, to other urban areas. In this interplay, the local landscape is affected by decisions and events not only in the cities nearby but in other parts of the world (Primdahl and Swaffield 2010). Furthermore, also those who live and develop their activities in the rural landscape are directly connected to global networks. Farmers' relationship to their local landscape is primarily shaped by their agricultural practices, which in turn affect landscape structure and dynamics. These agricultural practices are increasingly shaped by globally circulating demands, technologies and models, and integration in vertical commodity networks is strong in modern farming (Pinto-Correia et al. 2018). But many farmers live and work in these rural landscapes, are attached to them through family linkages and tradition and are part of the local community, therefore being also integrated at the local scale.

For those who live in the rural landscape, also outside farming, the situation is similar. The residents in the rural setting are seldom linked to farming, but rather to the service sector, and they can work in the local context or are linked to another context, through Internet connections. They can be from a local origin or from many other parts of the world, arriving for work motives in the search for amenities. Processes of globalization, economic restructuring and urbanization are linked to new spatial mobilities (ESPON 2013). The rural communities have changed and are both linked locally and also connected to regional, national and global processes (Hedberg and do Carmo 2012; Hidalgo and Hernández 2001). In the South of Europe, this movement tends to take particular contours, as the attraction of the countryside for wealthy urban dwellers from other parts of the Europe and of the world is significant, and therefore the diversity of local communities and their global linkages tends to increase extremely fast. Compared to local rural communities a few decades ago, the present ones are, in many cases, radically different.

The Southern European countryside, in the interplay between multiple tensions and societal aspirations, between global drivers in the *space of flows* and local revival in the *space of places* (Castells 2000), is currently changing and readapting to the interplay between local and global networks.

Concluding, Southern European landscapes are strongly marked by the hybridity in the processes which shape their configuration: complex land use systems resulting in fuzzy patterns and complex power relations relating to land and production, resulting in fuzzy decision-making processes and fuzzy development pathways, in between rural and urban drivers.

7.3   Understanding Change: A Perspective from the South

Landscapes are changing all over Europe, resulting in a mismatch between landscape pattern and landscape function: landscape patterns linked to functions which have been there a long time (as production) and the new multifunctional uses and management strategies (as recreation and residential use), acting on this landscape pattern inherited from the past (Pinto-Correia et al. 2018). The responsibility, roles and interrelations between the different uses of the landscape are constantly under change and are not always clearly explicit or understood today (Selman 2012). New conceptual frameworks and models are required that can support this understanding (Plieninger et al. 2016). Theoretical reflection, empirical observations and analytical models which address the changes in the landscape itself, as well as driving forces and actors, are essential.

We find it crucial to read the rural landscape change as a result of the different demands and expectations by society, resulting in drivers of change. What society expects from the rural space drives this rural space to respond accordingly, even if there may be failures and mismatches at the spatial or temporal scales. John Holmes (2006, 2012) conceptualized what is known as the multifunctional rural transition (MRT), anchored on a) multifunctionality as an attribute of rural space and b) modes of occupancy as functions that society is either obtaining or expecting from rural areas. This sets a focus on societal dynamics and the more complex relations between the urban and the rural, and not solely on the intrinsic characteristics of each area. Holmes developed a conceptual framework inspired by empirical studies in Australia, in the marginal and low population density areas of central Australia, which shows to be highly explanatory for the changes we observe today in Southern Europe (Fig. 7.5). Accordingly, the different transitions taking place in rural areas today imply a radical reordering of the three basic purposes underlying society's use of the rural landscape, namely, production, consumption and protection. A shift, away from the previously dominant production goals towards a more complex, contested and variable mix of production, protection and consumption (of the landscape itself), is taking place. In Southern Europe, intensification and specialization of production are dominant as drivers of change in parts of the rural landscape, mainly where infrastructures allowing new production forms, as irrigation facilities, have been installed, but also in other contexts, as a result of the still dominant productivist paradigm embedded in public policies and in farmers' strategies (Pinto-Correia and Azeda 2017), as well as in areas, where the hegemony of agricultural production is declining, both in the occupation of space and of people, and where the landscape still carries the character build up through unique land use systems, amenity demands for quality of life, leisure or health, which are growing (consumption of the landscape). Due partly to the soft climate, the character and diversity of the landscapes and the diversity of cultural and heritage features, Southern European rural regions are being particularly successful in attracting newcomers (Almeida et al. 2016; Surová and Pinto-Correia 2016). Increasing numbers of people are in search of the higher standards in the quality of life that these regions can offer at a lower financial cost (Woods 2016). Countryside consumption is thus not just a process occurring by urban dwellers using the
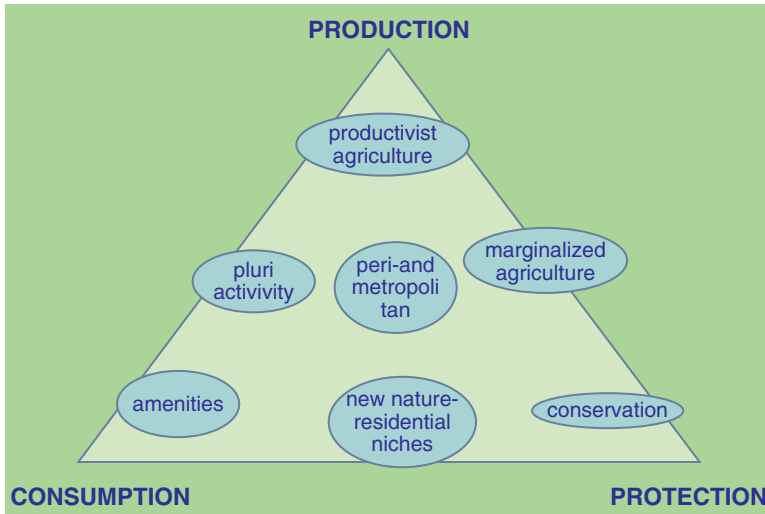
Fig. 7.5 The new modes of rural occupation, according to John Holmes (2006, 2012): in between drivers of agriculture production increasingly specialized and intensive, consumption of the landscape for multiple goods and services, and protection of nature and of natural resources, rural landscapes are increasingly differentiated (Adapted from Holmes 2006)

surrounding countryside to towns and cities, but by new inhabitants, decoupled from farming and from local activities, settling in the areas. Furthermore, the pressure for conservation is constant. Societal values turn the environment quality and nature integrity into an issue of growing concern, increasing the relevance of marginal areas for agriculture and human occupation (protection of the landscape and natural resources). For Mediterranean Europe, this environmental turn has an overall dimension (Pecl et al. 2017). There is overall in Europe, and in other parts of the world, a particular environmental concern focused on the Mediterranean ecosystems, as the Mediterranean region is known to be a biodiversity hotspot, for several years now, seriously at risk: the depletion of natural resources, in a fragile environment as the Mediterranean one, can lead to irreversible degradation; climate change effects reinforce the negative impacts of land use change, and existing scenarios are extremely worrying (Garcia et al. 2014).

In order to understand what is going on in each local landscape, due to the systemic nature of the landscape and the growing complexity resulting from the present drivers of change, we find the Socio-Ecological Systems (SES) framework proposed by Eleanor Ostrom (Guimarães et al. 2018; Mcginnis and Ostrom 2014; Ostrom 2010) extremely useful. Ostrom developed the SES framework as a platform to organize and create added value in knowledge derived from different scientific fields that normally work and produce knowledge in independent circles. This framework emerged as a reaction to the core of sustainability challenges, namely, the problem of managing resources under uncertainty and plurality of values and perspectives of those involved (Lang et al. 2012; von Wehrden et al. 2018). And therefore it is particularly relevant to organize knowledge on the multiple drivers affecting at different scales the Southern European landscapes and the multiple

individuals or interest groups that have nowadays a stake in these same landscapes. Ostrom suggests a theoretical understanding of the rules and norms that people use to organize themselves in relation to the use of common resources. The framework proposed allows to systematically identify the elements (ecological, social, economic, institutional) of complex real-world system in a given place and to unpack subsystems and the variables that may describe them and provide ways to evaluate sustainability trends. The socioecological systems are described according to first-tier categories, which correspond to different logical categories of the system, with lower-level tiers as subdivisions. The first-level tiers, mostly known and increasingly used in applied studies, are resource systems (RS), resource units (RU), governance systems (GS) and actors (A) (Mcginnis and Ostrom 2014). Ostrom also focused on understanding how micro contextual variables related to social, physical, hydrological, biological and ecological context affect the capacity of groups to solve collective action problems (Guimarães et al. 2018). Details can be found in a constantly growing literature based on Ostrom's framework. Applying SES analysis always adds to the level of knowledge we may have on a certain landscape, its present drivers and its governance challenges.

7.4   Ongoing Changes

The rural landscape in Southern European countries is increasingly registering a process of financialization of agricultural production, which is rapidly leading to changes parallel to what happens in other parts of the world, at a scale unseen before. This trend is providing urban capitalism with new opportunities to expand its sphere of influence and is leading to dramatic changes in the patterns of agricultural production and ownership (Busch 2010). Financialization can be described as 'the tendency of financial markets to dominate and for financial organisations to dictate conditions to those organisations involved in (agricultural) production', leading to a concentration in decision-making (van der Ploeg 2018). Actors involved are large-scale corporate companies, entrepreneurial farmers and national and supra-national operators in the agri-food chain. These influential actors are decoupled from the rural society and are primarily interested in appropriating rural socio-economic and territorial resources (Rosa et al. 2017). Although more traditional, extensive and multifunctional modes of agricultural production, primarily based on family farming, remain relevant in large regions in these countries, in others the transition towards a predominantly intensive mode of agriculture, driven by financialization, is now occurring extremely rapidly and is absorbing the dominant attention of the agricultural regime (Pinto-Correia et al. 2010, 2017). The changes in the landscape function and pattern are remarkable, as known land use systems are replaced by new ones and the land cover pattern changes radically. This landscape impact, which goes hand in hand with environmental and social impact, is hardly considered in the discourse and concerns of the agricultural regime. The expansion of intensive and super-intensive olive groves in Southern Portugal (Fig. 7.6), which
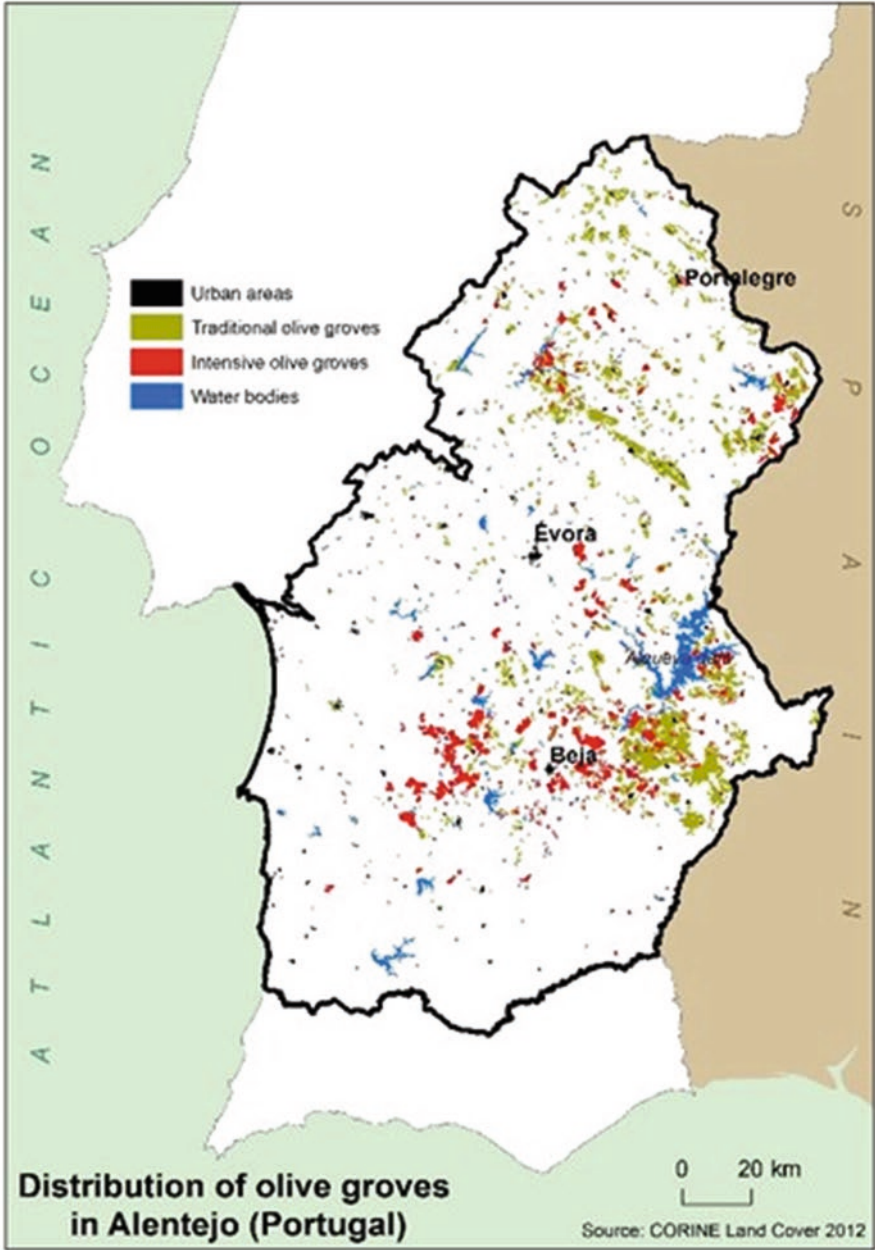
Fig. 7.6 The expansion of intensive and super-intensive olive groves in the South of Portugal. These are olive groves installed in the last 10–15 years, still in the first generation of olive trees, soon to be replaced in order to maintain productivity levels (Author, based on data from CORINA Land Cover 2012)

occurred along the last 15 years, is a clear example of this. The landscape pattern changes from an extensive large-scale mosaic of natural and improved pastures intermixed with traditional olive groves and silvo-pastoral farms, in a diverse horizontal and vertical density, to a homogeneous and continuous dense and regular cover of small olive trees.

In this changing process in European Mediterranean countries, some specific drivers outstand. These include (a) long-standing public investment in irrigation systems and infrastructures that facilitate large-scale production, processing and distribution; (b) the absence of national strategies and clear goals for agriculture, whose direction is largely shaped by EU agricultural policies and related policy and financial instruments; (c) low levels of social awareness about environmental challenges and natural and territorial resource depletion (especially in rural areas); (d) recent financial investment growth in agriculture-related assets, particularly since the 2008 global financial crisis; and (e) the dominance of the (supra-)national agri-food processing and distribution sector by a few large-scale corporations (Allaire and Daviron 2017; Hodge and Ortiz-Miranda 2007; Ortiz-Miranda et al. 2013).

Paradoxically, these same regions are being very successful in attracting new entrants to farming as well as other newcomers, as increasing numbers of people are in search of the higher standards in the quality of life that these regions can offer at a lower financial cost and also in search of new business models related to farming and rurality (Almeida et al. 2016; Pinto-Correia et al. 2017). These new inhabitants bring with them specialized knowledge, social capital, global connections and investment capacity. Some become new entrants to farming; others bring new businesses and/or establish territorially embedded, but globally connected, new enterprises (Halfacree 2012; Hedberg and do Carmo 2012; Woods 2016). These new arrivals are playing a key role in reinvigorating the agricultural sector and the rural communities, bringing with them practices and ideas that can foster territorial vitality, resilience and competitiveness (EIP-Agri 2016). They also bring innovation and entrepreneurialism, practical and theoretical skills and networks that have been developed on farms elsewhere, in educational institutions and through off-farm employment (Woods 2016; Zagata and Sutherland 2015), and that can be applied to agriculture and other rural activities. In addition, a diversity of social movements and experiments are arising that are exploring alternative ways of living and producing and often linking urban and rural communities in novel ways (Ortiz-Miranda et al. 2013; Rosa et al. 2017).

Mediterranean's rural areas have a long tradition of hybrid relations with urban actors and hybrid decision-making processes that involve actors with different levels of connection with 'the local community' (i.e. absentee landowners and family members living in urban areas or even abroad) (Ortiz-Miranda et al. 2013). Thus, there is a tolerance of 'outsiders', which facilitates integration. This makes it easier for new (groups of) actors and initiatives to be accepted within the local communities, even though their presence may challenge the cultural habits and established mind-sets of rural societies. This also brings a potential for innovation, beyond business models, in institutional arrangements and in governance models,

inspired by those who have experienced other realities (Hedberg and do Carmo 2012; Hodge 2013).

Following the conceptual model proposed by John Holmes (2006, 2012), what can be observed is a strong segregation of specific rural landscapes in quite new arrangements, with specialized new modes of rural occupancy: strict productivist farming in one side and mixed multifunctional uses driven by new entrants and intermixed activities on the other, as well as residential countryside, marginal areas increasing their conservation value and others. The social-ecological systems in each of this type of areas have changed or are changing also accordingly. The main question at present is where this will lead us in the future, in terms of landscape and of rural resources use and preservation.

7.5 Concluding: Management Challenges

Rural areas in the South of Europe are registering contradictory changes, with a certain spatial segregation but nevertheless intermixed with each other, through actors and networks. There is an ongoing simplification of the landscape and depletion of natural resources. The changes are ongoing now, fast, and with immediate, and to a still unknown extent, irreversible effects on the environmental and social balance. There is a growing decoupling between communities and rural resources, driven by changing power relations in the use and management of these resources. But there seems to be fertile ground for social innovation and developing new social practices that diverge from conventional paradigms and the dominant discourses (Pinto-Correia and Azeda 2017). The critical mass and critical views on resource depletion are also increasing. Still, a clear vision for new patterns of stewardship of rural resources within the spirit of a post-growth society, despite its urgency, is still missing (Hodge 2013; Rosa et al. 2017; Sjoblom et al. 2012).

In this setting, one fundamental and pressing challenge facing rural Southern Europe is how to turn threats into opportunities and jointly find strategic pathways for the future. As it has been shown in other regions of Europe, it may be possible benefit from the still subtle emerging social transition and translate it into ways to use of environmental, social and territorial resources that can lead towards more sustainable options and scenarios, and thus also the preservation of a character-driven and unique landscape (Pecqueur and Vieira 2015; Rasmussen et al. 2018).

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Chapter 8
Turkey: Clımate Variability, Extreme Temperature, and Precipitation

Barbaros Gönençgil and Zahide Acar

Abstract Climate variability and climate change have significant impacts in many areas of the world with different effects. It is generally accepted that changing climate variability and consequently changes in the intensity and frequency of extreme climatic events may have strong effects on sensitive areas. The east of the Mediterranean Basin in Turkey is one area where significant effects of climate variability may be experienced. Increases in extreme hot weather events and weak but distinct decreasing tendencies in extreme cold weather events are worth noting. Therefore, the increase in temperature, which has been rising since the early 2000s, is also combined with decreases in very cold days. In addition, the decreasing tendencies in total precipitation are accepted in many weather stations as important signals of long-term drought. The increasing trend of consecutive dry days and the decreasing trend of consecutive wet days can be considered as an indication that severe precipitation events will be more pronounced in annual total precipitation.

Keywords Climate variability · Turkey · Temperature · Precipitation · Climate indices

8.1 Introduction

Climate change is defined as trends in the direction of an increase or decrease in the average or variability of climate elements globally over long time scales. Since climate change has become an important issue, doubts about the reliability of the data used in the analysis have rightly increased. It is known that the changes and trends

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of many long-term climatological time series are not only caused by changes in weather and climate.

The climate is variable in nature, and it is possible to see this variation in nature on a spatial and temporal scale. A significant portion of this variability, such as year to year or season to season, is only partially understood (Hare 1991; Smithers and Smit 1997; Thornton et al. 2014). In addition to the natural cycle of climate, climate change has strengthened due to the negative effects of human beings on the Earth's atmosphere. Nowadays, the increases in frequency and intensity of some natural disasters can be accepted as an indicator of climate change.

Today's rapidly increasing human activities lead to faster changes in the Earth's climate. The most significant parameter of the changes in climate relate to air temperatures. With the increase in frequency and intensity of extreme weather events, climate variability has increased to a greater extent.

Climate change in Turkey has long been one of the major issues related to climate studies. Turkey remains under the influence of different air masses in geographical location as winter and summer seasons. The seasonal differences due to the geographical location increase with the effect of the geographical position. Generally, Turkey is under the influence of a type of tropical airflow in summer, while it is under the influence of winter polar air in winter. The air currents which occur in Turkey are seen as the Siberian anticyclone, and as the polar front depression in winter, it develops under the influence of Azores anticyclone and under the influence of low pressure from Basra which is an extension of the Monsoon low pressure (Erinç 1996; Erol 1999; Gönençgil 2008; Koçman 1993).

Depending on the characteristics of the general atmospheric circulation, Turkey and the surrounding area are entirely dominated by tropical air masses in summer. The western and northwestern regions of the region are occupied by marine air masses (maritime tropical (mT)), while the southeast and southern regions by (continental tropic (cT)) air masses coming from the Atlantic. In summer, there are no polar air masses in the Mediterranean Basin. Because Europe is in the north of the field, it is hot in this season. Polar air masses to the north are less likely to be introduced into the Mediterranean Basin in summer. In summer, atmospheric flows are unsuitable for front and cyclone formation. According to previous studies, Turkey's total annual winter rainfall was generally increasing until the 1960s; however, since the 1970s, decreasing trends have been identified. According to previous studies conducted in the Mediterranean, Southeast Anatolia regions, and urban weather stations, significant warming trends in temperatures have been observed in more densely areas (Acar and Gönençgil 2019; Acar et al. 2018; Deniz 2016; Erlat and Türkeş 2015; Gönençgil 2019; Gönençgil and Acar Deniz 2016).

When we examine the general country distribution of Turkey's average temperature, lower temperatures latitudinally are observed in the northern parts than in the southern parts. Similarly, lower averages are seen in the inner and eastern parts where greater elevation is apparent. According to Mann-Kendall trend analysis, the increasing trend is dominant in Turkey's air temperatures (Kendall 1975; Mann 1945). These rising trends, which are particularly strong at minimum temperatures,

are quite pronounced at average temperatures. Weather stations where significant upward trends are weaker are generally seen in remote, rural stations in city centers.

8.2   Extreme Temperature Events

Many studies about extreme temperatures using different thresholds have been carried out in Turkey. The common result of these studies is that extreme temperature events are increasing and extreme cold events are decreasing (Acar and Gönençgil 2019; Erlat and Yavaşlı 2009; Şensoy et al. 2008; Ünal et al. 2012). Due to the increase in extreme climatic events, severe events such as hot/cold air waves and dry periods/ extreme rainy periods are among the most studied subjects in the Mediterranean Basin. The effects of heat waves and extreme events in Greece, Balkans, and Romania in 2007 were investigated after the heat wave that caused a large number of deaths in 2003 in Western Europe and especially in France and its surroundings. Many researchers developed a set of indices for climate parameters in order to objectively evaluate extreme climate events (Alexander et al. 2006; Fernández-Montes and Rodrigo 2012; Frich et al. 2002; Klein Tank and Können 2003; Luterbacher et al. 2004). This index is made by utilizing the array of considerations related to spatial and temporal distributions of extreme temperatures in Turkey.

The study area covers the region bounded by 26°E–45°E longitude and 36°N–42°N latitude, which includes Turkey. Daily maximum and minimum temperature and precipitation records were provided for 158 weather stations by the Turkish State Meteorological Service for the period 1964–2014. According to the Mann-Kendall test, a statistically significant upward trend in average temperature was observed in almost all of these weather stations in Turkey (Fig. 8.1).
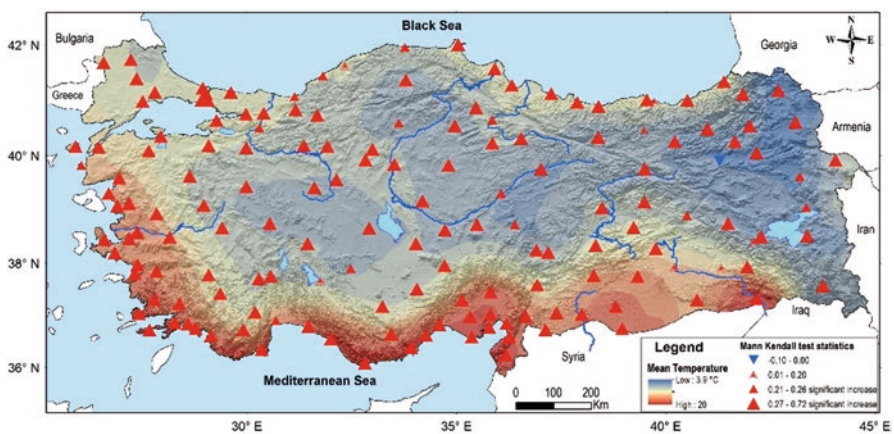

Fig. 8.1 The spatial distribution precipitation and trend change of total precipitation based on Mann-Kendall rank test

   Temperature indices used in the study can be evaluated in two groups. The first group is to determine the frequency (Max > 25, Min > 20, Min < 0 °C, Max < 0 °C) of indices of the specified threshold. The second group is the indices used to calculate temperature changes (extreme temperature range). These indices, where the effects of climate change can be observed, and the indices of daily temperatures have been calculated. In this study, the indices applied for temperatures are listed in Table 8.1.

8.2.1   Summer Days

The largest number of summer days is on the southeastern and southern coast of Turkey. There was an average of 85–90 days of summer in these areas during the 1964–2014 periods. This number falls in the high plateau and mountainous area in Turkey's northeast to 55 days (Fig. 8.2). The number of summer day's index was the highest in 1998, 2001, 2003, 2006, and 2008. The lowest summer day's indices were 1967, 1968 1976, 1983, and 1984. Overall, the average number of summer days decreased in the 1966–2014 periods from south to north. The highest number of summer days could be observed in the Southeastern Anatolia Region and at weather stations in southwest Turkey, while the lowest number of summer days is recorded in Anatolia.

Table 8.1 Definitions of the temperature indices used in this study

| Index	Descriptive name	Definition
SU	Summer days	Annual count of days when TX (daily maximum temperature) > 25 °C
TN	Tropical night	Annual count of days when TN (daily minimum temperature) > 20 °C
FD	Frosty days	Annual count of days when TN (daily minimum temperature) < 0 °C
ID	Icy day	Annual count of days when TX (daily maximum temperature) < 0 °C
DTR	Daily temperature range	Monthly mean difference between TX and TN
R99p	Extreme humid days	Annual total PRCP when RR > 99th percentile
R95p	Very wet days	Annual total PRCP when RR > 95th percentile
SDII	Simple daily intensity index	Total rainfall = total rain day per year
CDD	Consecutive dry days	Maximum number of consecutive days with daily precipitation <1 mm
CWD	Consecutive wet days	Maximum number of consecutive days with daily precipitation ≥1 mm
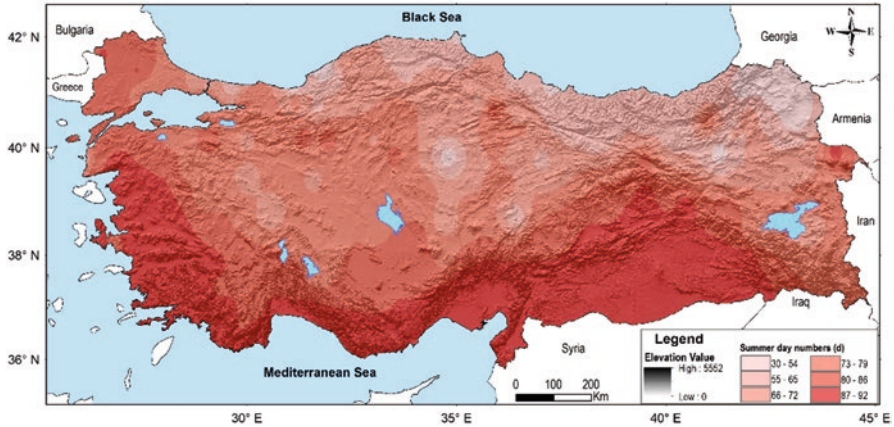
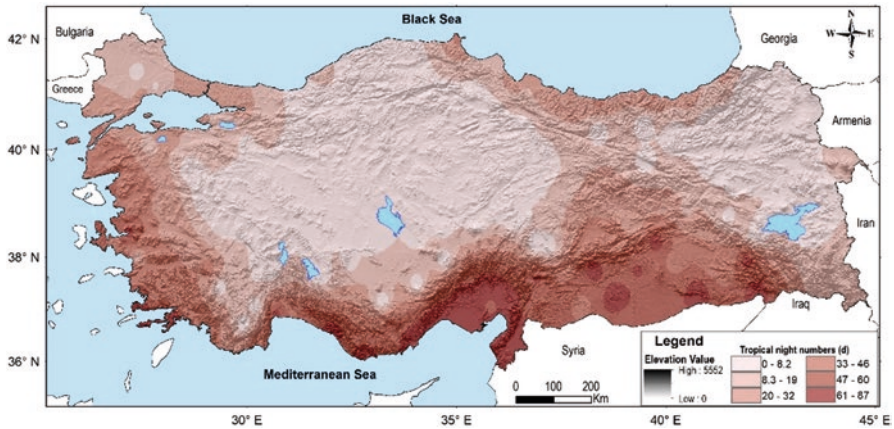**Fig. 8.2** Spatial distribution of summer day numbers

Fig. 8.3 Spatial distribution of tropical night numbers

8.2.2   *Tropical Nights*

The average numbers of tropical night decreased for the 1964–2014 period, from south to north (Fig. 8.3). The highest number of tropical night can be observed around the Gulf of Iskenderun, while the lowest values are observed in Turkey's northeast with the Western Black Sea. Summer 2010 is the period with the greatest extreme temperature anomalies. The fewest tropical nights were experienced in 1968, 1969, 1976, 1982, and 1984. While inter-year changes do occur, the highest numbers of tropical nights have all been observed in the last 20 years.

8.2.3 Frosty Days

The number of frosty days increases toward the east to the west of Turkey. The highest number of frosty days is recorded in Eastern Anatolia where the number of frosty days reaches the highest values, especially in the north of Van (Fig. 8.4). The shores of the Mediterranean and Aegean Sea and the surrounding area of Istanbul are the areas with the lowest number of frosty days. Maritime effect and elevation are the most important factors in the distribution of frosty days. The warming effect of the sea can be seen throughout the coastal area. There is a significant spatial change in the number of frosty days due to the effect of topography from the coast to the inland areas. The maritime effect of the Aegean coastline reaches the inner parts of the sea with the effect of topography.

8.2.4 Icy Days

Generally there is an increase from west to east in the number of icy days. Icy locations can be mostly seen in the East Anatolia Region, especially in the northeast of Turkey. In these areas, approximately 60 days of winter are icy days (Fig. 8.5). In the 1964–2014 period, there were almost no icy days at the Mediterranean coastal belt and the Aegean coast weather stations.
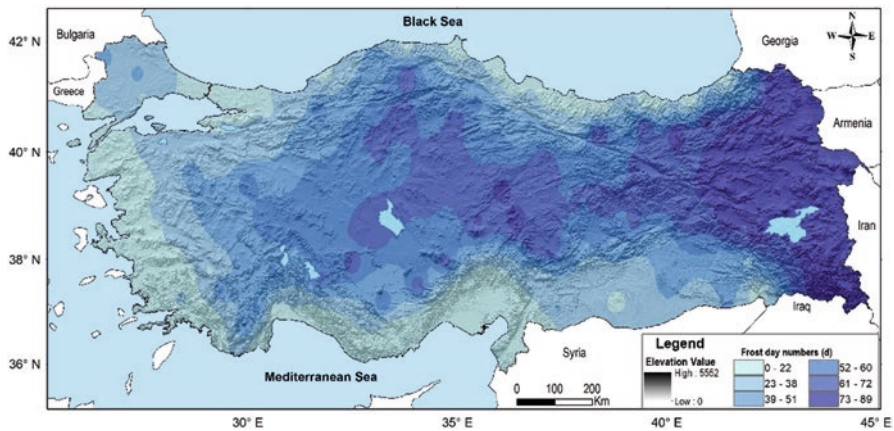

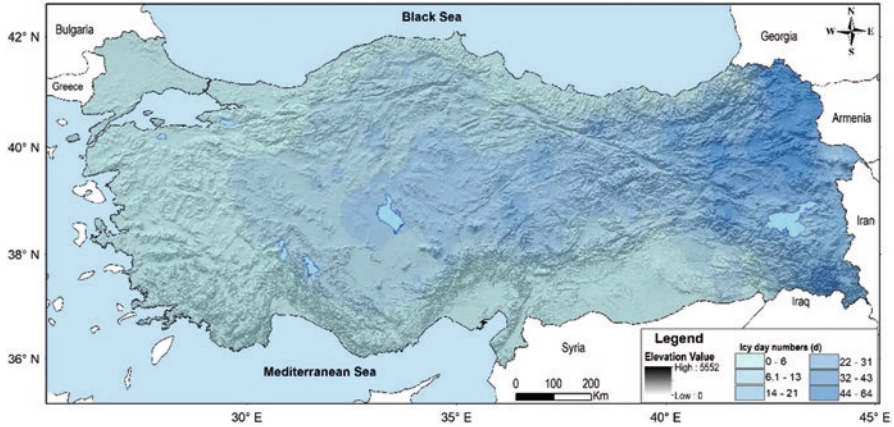**Fig. 8.4** Spatial distribution of frost day numbers

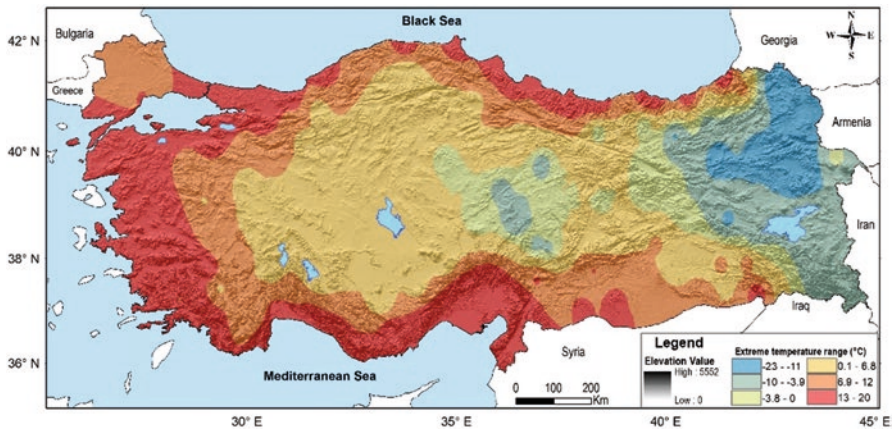**Fig. 8.5** Spatial distribution of icy day number

Fig. 8.6 Spatial distribution of extreme temperature range

8.2.5   *Daily Temperature Range*

The daily temperature range is calculated by taking the difference between the highest temperature and the lowest temperature observed in the same calendar year. According to the analysis made for winter, 1972 (2.6 days), 1992 (2.7 days), 1976 (2.9 days), 1993 (4.2 days), and 1974 (4.6 days) were the years when the daily temperature range was lowest. The daily temperature range is highest in the years 2010 (12.7 days), 1966 (12.3 days), 2013 (12.3 days), 2011 (12 days), and 1970 (11.4 days). From 1964 to 2014, the total number of winter days with extreme seasonal temperature range decreased from east to west (Fig. 8.6). The highest extreme

temperature ranges can be observed in Eastern and Southeastern Anatolia. In addition, the daily temperature range in winter is highest in the interior. The most decisive factor in this temperature index is terrestrial-marine. Extreme values are seen less in winter extreme temperatures in coastal weather stations and surrounding areas where marine effects are evident. In addition, extreme temperature differences between hot and cold values are not as high as in the eastern part of Turkey.

8.3   Extreme Rain Events

Scarcity, drought, and low total annual precipitation, in the Mediterranean region (Spain, Greece, Italy, Turkey etc.), are some of the most important climatic variables discussed by many researchers. Studies show that long-term drought events occur in the Mediterranean Basin (Bordi et al. 2001; Livada and Assimakopoulos 2007; Vicente-Serrano and Lopez-Moreno 2005). Turkey experienced drought events due to the lack of rainfall in general, especially in the period 1970–2000. Annual total precipitation decreases and increases can be observed. The decreasing tendencies are apparent in the Mediterranean and Aegean coasts, which generally have the Mediterranean precipitation regime (Fig. 8.7).

Indices used for extreme rains are described in Table 8.1. Rain indices can be evaluated in two groups. The first group is calculated to determine the percentage (P < 99th) of values exceeding the percentage limit of the index used for precipitation, to determine the frequency (P20 mm) of the index whose threshold was determined. The second group is the indices used to calculate precipitation change (consecutive dry days).
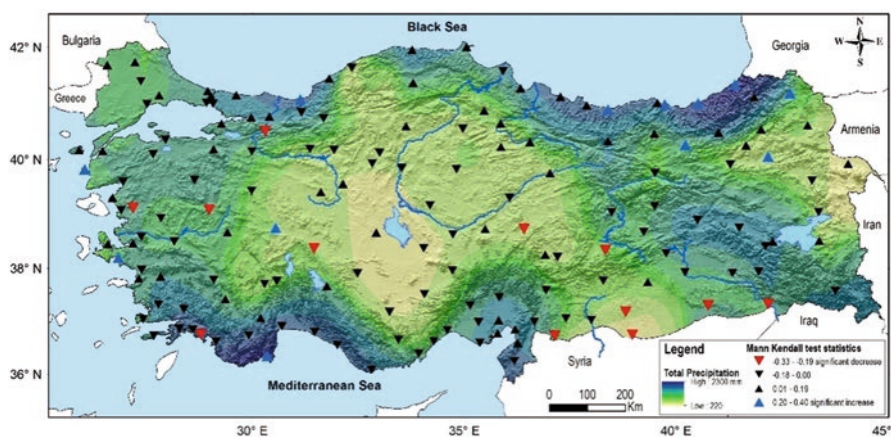

Fig. 8.7 The spatial distribution precipitation and trend change of total precipitation based on Mann-Kendall rank test

8.3.1   Extreme Humid Days

The extreme humid day index determines when seasonal rainfall is above average. The extreme humid day index in winter is similar to the humid day index. The most humid years were experienced in 1990 (4.9 days), 1969 (3.3 days), 2002 (3.1 days), 2013 (3 days), 1981 (3 days), 2004 (2.9 days), and 2010 (2.8 days). The weather stations in the Black Sea coastal zone and the Tunceli-Bitlis belt in the Menteşe region of the Aegean region, north of the Southeastern Taurus Mountains, have the highest humidity. Excessively humid days with precipitation have shown a downward trend since the 1970s. 1973–1974 correspond to a statistically significant dry period. 1989 and 2014 were the years with the least number of extreme humid days, while 1990 was the year with the highest number of humid days. In Southeastern Anatolia, the Mediterranean, and Aegean regions, the number of extreme humid days is lower than the average. These areas are influenced by the Mediterranean precipitation regime. The area of influence of typical summer drought shows a significant distribution in the distribution maps of extreme humid and humid days. The highest summer extreme humid days are observed in Eastern Anatolia and Central Anatolia Regions (Fig. 8.8).

8.3.2   Very Wet Days

It can be said that days with 20 mm and above of precipitation are often in areas where the Mediterranean precipitation regime is seen. Very wet days in winter are generally similar to extreme humid day index. Rainfall of 20 mm or more is observed at the weather stations in the coastal Aegean region, the Menteşe region, the Mediterranean coastal zone, the Eastern Black Sea region (Rize and Hopa), and the
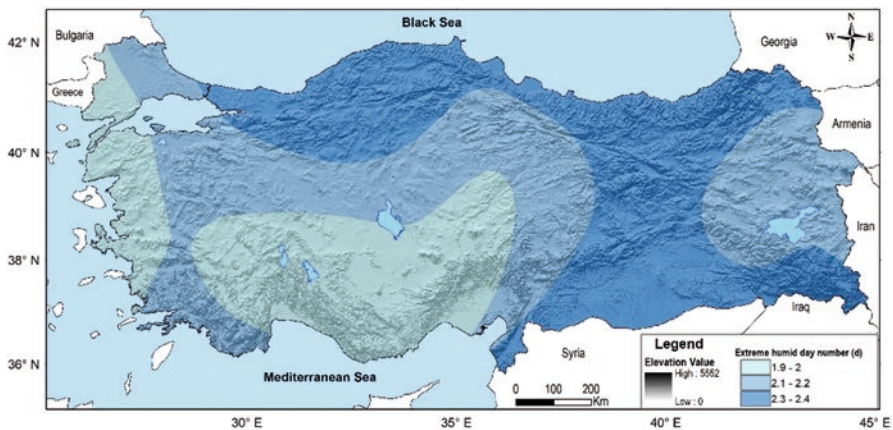

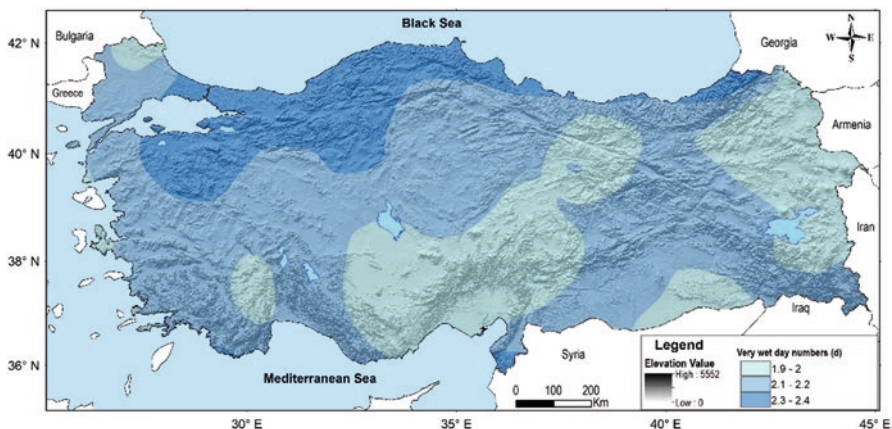**Fig. 8.8** Spatial distribution of extreme humid day numbers

Fig. 8.9 Spatial distribution of very wet day numbers

northern part of the Southeastern Taurus. The years 1967, 1969, 1978, 1981, 2002, 2004, and 2010 were the years when the most severe rainfall occurred and 1972, 1973, 1989, 2001, 2007, and 2014 the least. The number of days of rainfall of 20 mm or more shows a weak upward trend in most of the weather stations in the Black Sea Region (except Hopa, Rize, and İnebolu) and Central Anatolia. In most of the areas dominated by the Mediterranean precipitation regime, the trend toward a decrease in very wet days is clear (Fig. 8.9).

8.3.3 Simple Precipitation Intensity Index

The precipitation intensity index gives the average precipitation on rainy days. The highest values for the distribution of winter precipitation intensity are observed in the Mediterranean coastal belt; the highest rainfall in the area in the west of Turkey can be seen in Rize and Hope weather stations (Fig. 8.10). Simple precipitation intensity in Turkey ranges from 4 to 24 mm. Weather stations in the Mediterranean coastal zone show significant regionality with a simple precipitation intensity index. Since the annual rainfall rates for the inner parts are also low, the rainfall intensity in these areas varies between 4 and 7 mm. The reason for the low simple precipitation intensity index may be that precipitation does not fall in the form of rainfall in northeast and eastern part of Turkey. In recent years, simple precipitation intensity index includes a trend toward increasing throughout Turkey. After the significant dry stretch from 1971 to 1974, a significant increase in precipitation intensity series can be seen. Although there was an increase, the precipitation index has started to show values above the average since 2010.
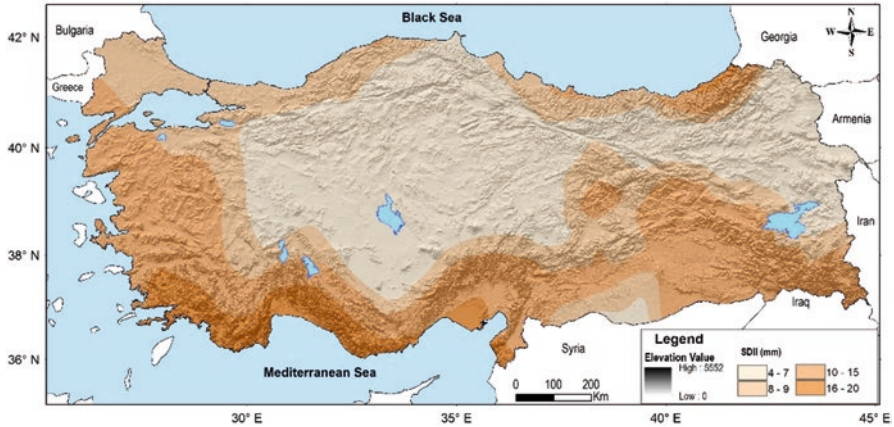
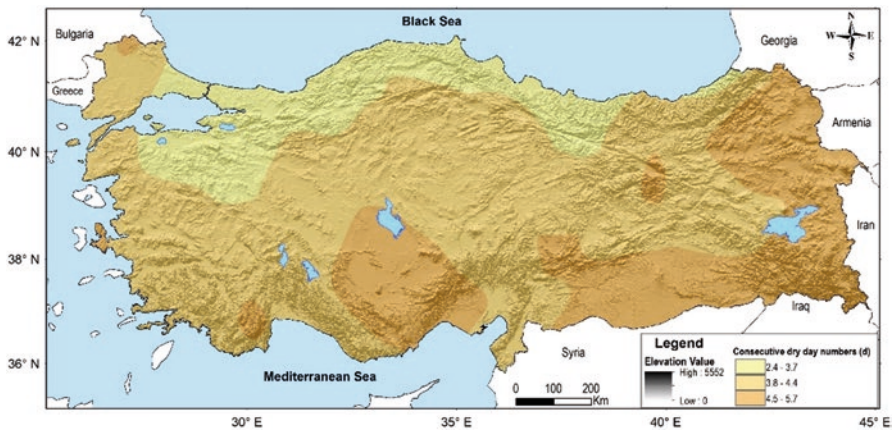**Fig. 8.10** Spatial distribution of simple precipitation intensity index

Fig. 8.11 Spatial distribution of consecutive dry day index

8.3.4 Consecutive Dry Days

Consecutive dry days are the days when the precipitation is <1 mm for each weather station and 5 consecutive days are less than 1 mm. The number of consecutive dry days throughout the winter season is between 2.4 and 5.6 days. The number of consecutive dry days is highest in stations found in northeastern of Turkey and Southeastern Anatolia Region and behind the Mediterranean coast. There is an overall upward trend in consecutive dry days in Turkey (Fig. 8.11). A significant upward trend is also observed in the western part of Southeastern Anatolia, especially in the interior areas where terrestrial effects are clear.
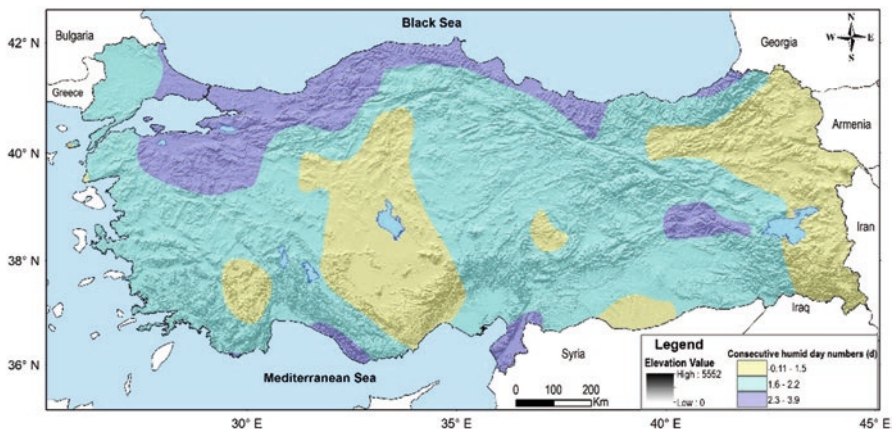
Fig. 8.12 Spatial distribution of consecutive humid day index

8.3.5   Consecutive Humid Days

Consecutive humid days are defined as the number of days in which the precipitation is ≥1 mm and rainfall is greater than or equal to 1 mm for at least 5 consecutive days. The number of consecutive wet winter days in Turkey generally ranges from 0.3 to 3.8. The area with the highest number of consecutive humid days is the Western Black Sea Division of the Marmara Region and the Black Sea Region (Fig. 8.12). This can be explained by the development aspects of depressions that are effective during the winter season. The air masses that are effective over the Balkans are first affected by the north of the Marmara Region and the Western Black Sea. The low number of consecutive humid days in the eastern and eastern parts is related to the snow fall. Turkey has an overall downward trend for consecutive humid days outside of the inner regions.

8.4   Results

The studies show differences in temperature which indicate significant change, especially since the 1990s. According to this assessment, the tendency toward an increase in hot days and a decrease in the number of cold days is noteworthy. These trends have become evident for summer days since the 1990s. The rise in tropical nights has become apparent after the last 5 years of summer days. No significant reduction in frosty and icy days is evident in the last 10 years. This study parallels the studies in the Eastern Mediterranean Basin. Temperature variability and frequencies of extreme events coincide with studies for the Eastern Mediterranean Basin. Although this situation is in parallel with global climate change processes, it

is necessary to take into account the city heat island effect of the meteorological weather stations, especially in the city, in this increase. For example, the upward trend in summer night temperatures or, in other words, summer minimums is an important indicator of the said city heat island effect.

Similar trends are observed in precipitation extremes. Extremely humid days display a weak downward trend in most weather stations in winter. The number of days of rainfall of 20 mm or more shows a weak upward movement in most weather stations in the Black Sea Region (except Hopa, Rize, and İnebolu) and Central Anatolia. In most of the areas dominated by the Mediterranean precipitation regime, a downward trend in very strong precipitation amounts is evident. Trends in the precipitation intensity index are generally increasing.

Consecutive dry days show an overall upward movement in Turkey. A significant upward trend is demonstrated in the western part of Southeastern Anatolia, especially in the interior areas where terrestrial effects are clear. Successive humid days have an overall downward movement outside of the Turkish inland. Accordingly, variability and extreme changes in temperature and rainfall experienced in Turkey are similar to work done on a regional scale. The area impacted alongside the force of extreme weather events with anthropogenic factors and processes like urbanization and the destruction of natural areas is one of the most important threats we face.

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Chapter 9
Utopian and Developmental Mediterranean Spaces: The Example of the *Inland Sea* of Martins, Lavigne, Roudaire et al. (1869–1892)

Jean-Yves Puyo

Abstract Following the example of the tremendous success of the digging of the Suez Canal during its time, scientific and technical progress led us to believe, for more than a century and a half, in a Nature that could be modelled by Man. The nineteenth century saw the triumph of modern thought (Rabinow 1995) and the figure of the engineer, as well as the proliferation of major projects in the field of land planning, projects nowadays called "utopian". This resea=rch will attempt to present an example to our emblematic sense of this era: the project of Captain Roudaire on the creation of an Inland Sea (1874–1884) in the southern Algerian and Tunisian borders. Our aim will be to complete the brilliant analytical work done by Olivier Soubeyran and Ahmed Benckeik (1993) by making a new point about the origins of the project and its fertile descent. Thus, we will endeavour to show that the utopian projects do not die and reappear very regularly, according to the current events and the international preoccupations – and it is the case of the Inner Sea – proof that they have not been forgotten and they "haunt" the long-term world of global planning.

Keywords Inland sea · Mediterranean world · Modern thought · Roudaire · Saint-Simonisme · Utopia

9.1   Introduction

During the nineteenth and twentieth centuries, the Mediterranean world was particularly rich in projects considered as utopian and which, with one exception, would never see the light of day. This exception was the excavation of the Suez

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Canal, the maritime link between the Mediterranean and the Red Sea, officially inaugurated on November 17, 1869 by Eugénie de Montijo, the wife of Napoleon III, Emperor of France. This accomplishment, originally initiated by the disciples of Saint-Simon (Debrune 2001; Figeac 2012), was responsible for launching a new vogue for large development projects in this same Mediterranean space. From then on, thanks to science and technology, everything seemed to become possible.[1] With the modern thought that so marked the nineteenth century, Man believed he could modify the Earth as he wished: "Large projects were lining up. The era felt ready to overturn the face of the world" (Marçot 2003, p. 153). Thus, in less than half a century, "the sword and plough" (*ense et aratro*) that were so dear to Marshal Bugeaud, the famous colonizer of Algeria, disappeared before the steam engine and the mechanical bucket of the more peaceful Ferdinand de Lesseps (*Aperire terram gentibus*: "open the Earth to the nations").

Two major areas mobilized the thinkers behind the development of the Mediterranean basin, namely hydraulic resources (synonymous with colonial development and lower-cost energy) and transport. The French are most often found behind the projects defined as "utopian". Thus, in 1874, Captain Élie Roudaire proposed filling vast topographic depressions located in southern Algeria and Tunisia by pouring Mediterranean waters through an inlet canal to create an Inland Sea. This new Bay of Triton, as evoked by ancient authors, would have allowed development by irrigation of vast open areas, in particular for the purposes of colonization. Some years later, civil engineer Adolphe Duponchel proposed the construction of a trans-Saharan railway intended to link the shores of the Mediterranean to the Niger Bend (Duponchel 1878). This project was discussed, unsuccessfully, until the 1950s. Later, between 1928 and 1952, the extraordinary German plan named Atlantropa, led by Herman Sörgel, envisioned gradually draining the Mediterranean by seriously limiting the entry of Atlantic waters, using an ambitious network of dams built at the level of the Strait of Gibraltar, coupled with low-cost electricity production aimed at reviving the European economy, but also the African economy (Gispen 2001; Voigt 1998); it should be noted that Sörgel was also planning a canal link from the vast Congo watershed to the Gulf of Gabès, via Lake Chad – and Roudaire's Inland Sea.

Firstly, I posit that each development-based utopian project is the direct product of a great "period" of geopolitical interest in the Mediterranean space, which I propose to demonstrate by analysing the first utopia mentioned, namely the episode of the Inland Sea. Evidently, this is not a case of suggesting yet another overview of a subject that has already given rise to countless research projects, such as the almost exhaustive history written in 2003 by Jean-Louis Marçot or the brilliant, although now somewhat dated analysis (1993) put forward by Olivier Soubeyran and Ahmed Bencheick (1993), not forgetting the writings of Numa Broc (1987), Mickael J. Heffernan (1988) or even Jean-François Henry et al. (2011), amongst others. For my part, I will undertake to do some justice to Georges Lavigne's project, published

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[1] "[…] the gigantic work at Suez required the use of colossal material […] The incomparable power of machinery! Whether it is a matter of drilling mountains like Mont-Cenis or Gotthard, digging straits like Suez or Panama, crossing underwater elevations, like the Pas-de-Calais, machinery, unconscious by itself, always achieves victory" (Hélène 1883, p. 31).

in 1869, some 5 years before Roudaire's writings (in fact Roudaire massively plagiarized Lavigne), which is too often overlooked in recent work.

Secondly, it intends to complement, even modestly, the enlightening analytical work carried out by Olivier Soubeyran and Ahmed Benckeik, by making a new point regarding the Inland Sea project's rich heritage. Contrary to our esteemed colleagues' opinions on the matter "[the] abandonment and the oblivion into which they have fallen are the very proof of their utopic nature (with no possible place for realization)" (Soubeyran and Bencheikh 1993, p. 183). I want to demonstrate that, on the contrary, utopic projects do not die and reappear very regularly, according to current events and international concerns, and that this is the case of the Inland Sea, proof that they have not been forgotten and that they "haunt" the great field of global developmental thought for a long time.

9.2   The Context of the Inland Sea Project: The Saint-Simonian Influence

As highlighted by Jean-François Figeac (2012), it was during the first half of the nineteenth century that the great European powers, concerned about the consequences of the decline of the Ottoman Empire, reflected on the "Eastern Question", and more particularly about the future of the Balkans and the Eastern Mediterranean. In the case of France, although the Egyptian Campaign remains the best known episode (1798–1799), the previous voyages of Volney[2] or even Morée's scientific expedition (1829–1831), directed by Bory de Saint-Vincent (Bourguet et al. 1998; Deprest 2002), would feed an important movement of scientific curiosity in the Mediterranean throughout the nineteenth century. Along with this scientific interest came a "civilizational" mission, initially led by the Saint-Simonians: "[…] their dream of a great connection between the West and the East [went] through the modernization of the former by the latter, more specifically, through its conquest" (Henry 2001, p. 200). Michel Chevalier (1806–1879), who at the start of the 1830s presented himself as an apostle of Saint-Simonism, then proposed a Mediterranean system "[…] intended to regenerate the lands bordering the Mediterranean, most of which resemble those ill people upon whom one is preparing to cast the death shroud" (Chevalier 1832, p. 127). For this, he advocated a peaceful policy aimed at achieving "a universal association" between the peoples bordering the Mediterranean, based on industrial development initiated by the creation of a vast railway network: "Within the material order, the railway is the most perfect symbol of universal association. Railways will change the conditions of human existence" (Chevalier 1832, p. 132). Thus, the Mediterranean, once

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[2] Constantin-François Chassebœuf de La Giraudais, Count of Volney, known as Volney (1757–1820). Philosopher and orientalist, friend of Condorcet, Franklin and Diderot. Amongst other things, he is known for his writings on his travels in the East (*Voyage en Égypte et en Syrie*, 1783, a text that is said to have inspired Bonaparte's famous expedition), at to the then new United States of America, that he visited before Tocqueville, between 1795 and 1798.

[…] an arena, a closed field where, for three centuries, the West and the East have waged battle, must [now] be like a vast forum on all the points about which all the hitherto divided people will communicate. The Mediterranean will become the marital bed of the West and the East (Chevalier 1832, p. 126).

Saint-Simonian thought experienced huge success at prestigious French universities, and more particularly at the École Polytechnique, formerly attended by Auguste Comte, (once secretary to Comte de Saint-Simon then founder of positivism) and Barthélémy Prosper Enfantin (1796–1864), one of the great leaders of the Saint-Simonian movement after the death of its founder, and a proponent of the future Suez Canal in the 1840s.[3]

It should be highlighted that this Saint-Simonian sentiment created many political inconveniences for the École Polytechnique, both under the July Monarchy (established following the 1830 Revolution, during which its pupils played a major role in joining "the little people" to make the gunshot behind the barricades [Rousselet 1892]) as well as under the Second Empire. Afterwards, the Third French Republic was hardly more gentle, and official discourse sought to minimize this heritage.[4]

Upon graduating from the École Polytechnique, the graduates chose between a civil specialization (the "bootmakers") and a military specialization, according to their final grade.

9.3   "Imitating Nature While Hastening Its Work":[5] Captain Roudaire's Project

And it is to this body of the French State that François Élie Roudaire belongs; born to a bourgeois provincial family,[6] he dedicated himself to a career in arms by succeeding in the entrance examination for the École Spéciale Militaire in Saint-Cyr in 1854. Later, he was responsible for training senior officers in the French army. He

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[3] "From Auguste Comte's passage amongst the Saint-Simonians, they retained an advantage: the influx of École Polytechnique students that came to them. Saint-Simonism had found many followers [at the École Polytechnique] where the *Producteur* [a Saint-Simonian newspaper] circulated from room to room; this favor was partly due to the fact that the doctrine was defended by two former students: Comte and Enfantin" (Callot 1964).

[4] "[in 1841] some distinguished engineers, remnants of the Saint-Simonian sect, who had taken refuge in Egypt where they worked on the construction of the famous Nile dam, in Cairo, […] conceived the daring project to create a sea crossing through the isthmus […]. Paulin Talabot, who was one of the creators of the Lyon railway, and Barrault, both engineers and followers of Père Enfantin, produced two canal projects […]" (Bory 1890, p. 17).

[5] The maxim of French Water and Forest engineers in the nineteenth century, attributed to Adolphe Parade (director of the National Forestry School in Nancy), adopted the teachings of another important forester from the same century (Dralet 1824, p. 145).

[6] 1836–1885, born in Guéret (Prefecture of Creuse, one of the smallest prefectures in France). His father, François-Joseph, was a geometrician and a natural science enthusiast, having followed the teachings of the great naturalists Cuvier and Geoffroy-Saint-Hilaire at the Jardin des Plantes in

graduated in 1855 with the rank of sub-lieutenant and joined the École d'Application de l'État-Major for his specialization (at 140 Rue de Grenelle, Paris). There, he completed his initial training by studying a whole range of courses dedicated to mathematics, descriptive geometry, physics, chemistry, cosmography, geography, geodesy and topography, fields in which he particularly shone (Marçot 2003, p. 195), but also courses on artillery, fortifications, cavalry and infantry manoeuvres, etc. (Fig. 9.1).

It is not known whether he adhered to Saint-Simonian or positivist ideas during these years of military training. On the other hand, according to Paul Laroche, who gave a posthumous tribute on the day of his burial in his hometown of Guéret, Roudaire was openly republican and a free thinker (member of the Grand Orient de France), which earned him a long blockade on his military career throughout the period of the Second Empire.[7] After 4 years of garrison, he joined the Dépôt de la Guerre in March 1862, "the topographic establishment par excellence" (Rouby 1876, p. 4) which transferred him to the geodetic service in Algeria in March 1864. This service, which included 19 military staff engineers, worked on a 1:80,000

Fig. 9.1 Commander François-Elie Roudaire (*Société de Géographie*, Paris, Gallica.fr Collection)

Paris. Later, he was one of the founders of the Creuse Society for Natural Sciences, and served as a curator at the local natural history museum (Lemaître n.d.).

[7] "Indulgent to people, he has had in his life only hatred, not towards a man, but towards a regime: the imperial regime. So he had to suffer it. Noted as a republican, he remained at the rank of captain for seventeen years and did not advance until after the war of 1870, during which he was injured […] He welcomed [death] calmly, finding strength in himself and not resorting to the consolations of others" (Laroche 1885, p. 5).

survey of the map of the country, which was subject to French authority. And it was during a geodetic campaign in the vicinity of Biskra, carried out in March 1873, that Roudaire realized a precise topographic levelling of Chott Melrhir (also known as Melghir or Melhir) of which the altitude was not exactly known. The names chott in Algeria and sebkha in Tunisia describe vast topographic depressions with a flat base, which are characterized by high salinity. As noted by Élisée Reclus, on an east-west axis starting at the level of the Gulf of Gabès, there is a series of these topographic depressions forming a vast lacustrine plain:

> It is no less than 200 kilometers from east to west, and its length, from north to south, between the two furthest banks, is 75 kilometers. There is no permanent water, say the local residents, except in the central part of Chott el Djerid, but this layer of liquid is not at all visible; it is covered with a saline crust, which has led Arabic authors to compare the lake to a sheet of silver, an ice crystal, a bed of camphor, on which steps resound as on the stones of a vault (Reclus 1886, p. 168).

As stated by Roudaire, the geodetic survey work carried out with the help of a second staff officer, Captain Noll, showed that the western end of the vast depression was 27 metres below sea level, and this altitude was still falling steadily towards the east, all along the 125-km transect, then by themselves (Fig. 9.2).

From this, he deduced that Chott Sellem, located further east along the extension of the first depression, must have a negative altitude estimated at less than 40 metres, to within 60 centimetres. However, these two first vast depressed basins extended to the nearby Gulf of Gabès by two other chotts (Rharsa and el Djerid) located in Tunisian territory, and were therefore inaccessible to any military expedition, however scientific it was. Posing the hypothesis that the slope surveyed on the Algerian side extended identically to the Mediterranean, in an article published in the most
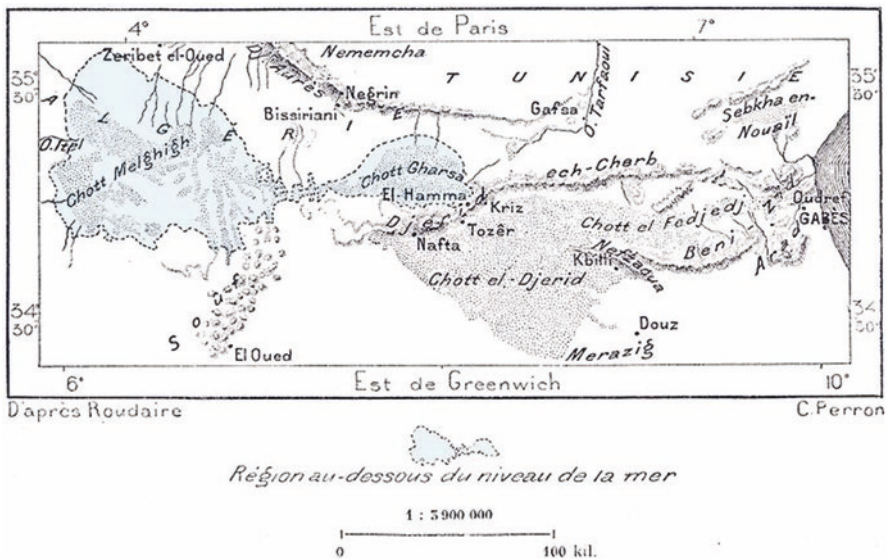

Fig. 9.2 Chart of the Chotts (Reclus 1886, p. 168)

famous French magazine of the time, the *Revue des Deux Mondes*, Roudaire proposed replenishing the water in this vast depressed area: "[…] it would be enough to connect it to this gulf by a channel to transform it into an inland sea" (Roudaire 1874, p. 327), 320 kilometres long by 60 wide, representing, with an average depth estimated at 25 metres below the level of the Mediterranean Sea, a volume of "about 480 billion cubic metres" (Roudaire 1874, p. 345).

But why (re) create a sea? Roudaire's initial project was about no less than changing the climatic characteristics:

> When we see the dismal and desolate regions of Chott Melrir, we think of the profound changes they would experience due to the presence of the sea, which would moderate the climate, regularizing the rains and thus developing the natural fertility of the soil. One cannot help but be moved by the greatness of this endeavor (Roudaire 1874, p. 327).

A human endeavour but which, in Roudaire's case, aimed to return a previous condition of ancient times, such as the Great Lake Tritonis or Bay of Triton mentioned by the ancient authors (Herodotus, Scylax, Ptolemy, Pliny, Pomponius Mela, etc.), which supposedly disappeared as a result of past natural events. Indeed, the formation of a large range of dunes, the future Isthmus of Gabès, had gradually slowed and then stopped the communication of waters between the Mediterranean and the area of depressions, which starts 16 kilometres inland.

As highlighted by Olivier Soubeyran and Ahmed Bencheik (1993), what is now known as the "ancient hypothesis" is fundamental for the credibility of the initial project: Roudaire largely rests on the idea "[that] what he wants to create is in fact not new […] In a sense, [it] showed, by history, the reproducibility of the experience" (Soubeyran and Bencheikh 1993, p. 196). Moreover, this importance of recreation is found in the title of this article, considering Roudaire as the founder of the project due to the publicity that he would give to it, as is mentioned in the table of contents of the *Revue des Deux Mondes*: "An Inland Sea to be Reestablished in Algeria"[8] and not "An Inland Sea in Algeria".

To a certain extent, here we find the philosophical credo of the French modernist engineers of this period who, like the example of their colleagues from Waters and Forests, wanted to "imitate Nature while hastening its work" (Adolphe Parade, cited by Roger Blais 1936, p. 7). Here, Nature is clearly the disappeared inland sea that they wished to recreate, but also the radical change that was hoped for in the environmental conditions: the southerly winds, gathering vapour as they passed over the new inland sea,[9] would collide with the slopes of the Aurès Mountains, forming clouds. These clouds, when meeting this barrier, would gradually rise and the cooling would lead to the type of precipitation known as orographic: "The vast plains located between the northern shores of Chott Melrir and Aurès will be the first to benefit from this change of climate, and they are very fertile plains" (Fig. 9.3).[10]

This climatic change that was put forward fits well with the justification for France's colonial work in Algeria from 1830, then in the Maghreb in general

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[8] *Revue des Deux Mondes, Table des matières du troisième volume – troisième période – XLIV° année*, p. 960.

[9] "Supposing that the basin of the chotts has an average depth of −25 meters, the capacity would be about 480 billion cubic meters" (Roudaire 1874, p. 345).

[10] "*La mer intérieure africaine*, extrait des *Mémoires de la Société des Ingénieurs civils, publiés en 1883*", *Bulletin de la Société de Géographie de Toulouse*, pp. 26–27 (p. 26).

Fig. 9.3 The perimeter of the Inland Sea in Roudaire's initial project (http://encyclopedie-afn.org/Mer_Roudaire)

(imposition of a protectorate on Tunisia in 1881, then on Morocco in 1912): it was a matter of recreating the "famous" breadbasket of the Roman Empire, which would have been ruined by nearly 1000 years of Arab neglect.[11] And at the time few authors spoke out against this assertion, as did the famous Saint-Simonian Ismaÿl Urbain, a great inspirer of the project of Arab Kingdom wanted by Napoleon III for the Algerian colony:

> The nature of the soil, whose richness had been greatly exaggerated, caused more than one disappointment […] Because the Latin word said granary of Rome, in other words, land of cereals, they wanted to find a tropical zone suitable for the cultivation of warm climates (Urbain 1862, p. 23).

For Elie Roudaire, the increased precipitation on the Aurès Mountains would supply reservoirs established on the main local rivers, providing "a quite formidable

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[11] Like this quote, amongst many others: "The great issue is making our African land civilized, Christian and national: it will only happen by covering it with emigrants worthy of this mission, who will fertilize the vast spaces and recover, step by step, by cultivation, countries once so fertile that they were the breadbasket of Rome, and have been rendered deserted and sterile by the barbarism of Islam" (de Consentino 1866, p. 16).

quantity of water",[12] enough to envisage the creation of a huge oasis of almost 600,000 hectares, open to colonization: "In the presence of such a colossal result, what are a few oases that may need to be expropriated?" (Roudaire 1874).

Amongst the other benefits listed by the author are that the new sea has the potential to block the southern winds (the sirocco) that are devastating to crops, as well as the swarms of locusts, which are no less harmful.[13] Finally, the project was supposed to favour the opening of a new commercial route to the regions located south of the Aurès and the Atlas mountains, as well as for the caravans from the central Africa, while facilitating military control of the southern Algerian and Tunisian borders for French troops:

> Once created, the region's populations will inevitably stay with us and provide us with the means of transport necessary in the event we have some insurgency to fight beyond the area that will be inhabited by sedentary Arabs […] From a military point of view, it is indisputable, a priori, that a line like this, which is an insurmountable barrier for the Arabs and for us a base of operation, is very advantageous (Ministère des Affaires étrangères 1882, p. 440).

9.4 Behind Roudaire's Inland Sea Project, the Scientific Work of Charles Martins as well as the Shameful Plagiarism of Georges Lavigne's Writings

European knowledge of the edges of the Gulf of Gabès was for a long time summarized in the description of the traveller Thomas Shaw in the mid-eighteenth century. Thus, in his *Travels in Barbary and the Levant,* published in French in 1763, the explorer differentiated the "Triton of the Ancients" or Gabs River (Oued el Fia?), located south-southwest of the ancient city of Gabès and therefore the source is located only 3 or 4 leagues from its outlet in the Gulf, from the Lake Tritonide (also known as Tritonis Palus or Lake Tritonis) of Pomponius Mela, Pliny or Ptolemy. For the latter, he made a case for the *Marques Lake*, namely the *Sebkha el Low-Deab (Sebkha el Wad'),* in fact, Chott el Djerid stretched in the direction of the Gulf of Gabès by Chott el Fejaj (Trousset 1995):

> This lake was nearly 20 leagues long from east to west, and it was six leagues wide in the place where I passed it […] the water of the Triton River […] is not fresh and healthy, instead the water of this lake […] is as salty as that of the Sea (Neaulme 1763, p. 276).

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[12] "By passing over the bed of the inland sea, they will collect water vapor, part of which will result in rain on the flanks of the Aurès; another part will increase the quantity of water which falls annually in Sicily and southern Italy, but without appreciably modifying the climate of these regions" (Roudaire 1874, p. 348).

[13] "The sirocco, which desiccates blooming harvests, will become inoffensive, beneficial even, because it will bring rains and storms to the Tell; the rivers will retake their courses, regularly and permanently. The northwards march of locusts and southern sands would be hampered" Roudaire cited in "La mer africaine", *Les soirées littéraires*, May 1882, p. 239.

This hypothesis was subsequently largely taken up by the geographers of the first half of the nineteenth century, such as Conrad Malte-Brun,[14] and by the French military staff officers, stationed in Algeria, such as the engineering captains Rozet and Carette. In the Algerian Chott Melrir, they saw the extension of the Tunisian depressions described by Shaw: "It would be astonishing if a physical accident as remarkable as Lake Melrir had not profoundly struck the imagination of the ancient [geographers of Antiquity]". It was in the vicinity of the Melrir that Lake Tritonis was to be found […] Not only does Lake Melrir, with its muddy gulfs and immense expanse, occupy the place of Lake Tritonis; but it is worthy of representing it in every respect" (Rozet and Carette 1850, p. 73).

And it is in this scientific context that a lawyer from Philippeville (now Skikda, Algeria), Georges Lavigne, based on the principle that *The Sahara is the enemy* (Lavigne 1869, p. 322) proposed breaking through the Isthmus of Gabès in 1869 to replenish the vast zone of chotts located in the hinterland. In fact, our author took up an idea that had already been stated a few years previously by the French naturalist and explorer of these same borders of south Tunisia, Charles Martins. In 1866, Martins described the physical mechanisms that had historically led to the interruption of the direct link between the Mediterranean and the chotts: over the centuries, the sediments carried by the torrents descending from the Aurès Mountains would have gradually accumulated over the years at the level of Gabès, forming a coastline:

> [namely] a 16-kilometre wide dune interposed between the Mediterranean and its Saharan appendage. No longer being connected to the Mediterranean, the waters, subject to continuous evaporation, have fallen below the level of this sea, as they are still today; the shorelines and the and inland shallows have separated the different basins, which have become chotts or salt lakes […] that this isthmus breaks, and the Sahara reverts to being a sea, the Baltic of the Mediterranean (Martins 1866, p. 553).

However, unlike Martins who supported his hopes of the French peacefully conquering the Sahara thanks to the extension and creation of a string of new oases based on the multiplication of artesian wells,[15] Lavigne meanwhile put a lot of hope in the change to local climatic characteristics resulting from the evaporation of the new body of water thus created.[16] Better still, he proposed a "complete" development of the future new colonization perimeter, by correcting the torrential wadis pouring into the depressions in order to prevent them from once again filling the "natural" outlet of the future sea in the Gulf of Gabès. For this, it is undeniable that

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[14] "Lake Tritonis or the Libya Palus, in Byzacena, flowed in the Lesser Syrtis, regarded as more dangerous and more difficult than the Greater Syrtis. The land was extremely fertile along the sea" (Malte-Brun 1830, p. 734).

[15] "When one day the oases will be joined, thanks to the springing fountains that General Desvaux raised from all around, and a palm forest will unite Biskra and Touggourt, then rails will be added end to end on these desert plateaus that nature seems to have prepared to receive them. Civilization will penetrate the Sahara, radiating on one side towards Egypt, on the other towards Senegal" (Martins 1866, p. 602).

[16] "The Mediterranean waters introduced into the interior of the land will not be without influence on the climate; they will decrease the dryness of the air, increase its humidity: it will rain more, and the atmosphere being less altered, taking less water, the low waters of the rivers will be more constant" (Lavigne 1869, p. 332).

Lavigne had read the great texts of his time devoted to the matter of Restoration of Mountain Terrain (RMT). Plagiarizing the writings of Alexandre Surell,[17] he recommended imitating Nature by creating dams upstream of the river basins of wadis, which would provide, in his words, *reservoirs of fertility*: the stored water would be used for irrigation and alluvium, rather than fruitlessly emptying it into the chotts, and would help fertilize the new agricultural land:

> We will make the whole region between Aurès and the chotts a new Nile delta; the sun pouring so much heat, the dams so much water, so much silt. And so magnificent plantations will cover this land (Lavigne 1869, p. 332).

As was later the case for Roudaire, it was also a matter of diverting trade from Sudan to Constantine while it was shared amongst Tripoli, Tunis, Mogador and Tangier, all cities outside the French sphere of influence. To do this, the new sea would constitute a route of penetration within a desert that refused to "be opened":

> [that] it may be opened by sounds, by fjords, opening the way to trade and navigation by Europe […] Being reservoirs of freshness and humidity, is that nonsense? Is it nonsense to conquer the desert, to repel the Sahara? It is the cancer that ravages Africa; if it cannot be healed, it must be drowned (Lavigne 1869, p. 328).

In conclusion, Lavigne returns to the main reason that, according to him, makes the implementation of his project crucial. It is about no less than constraining nature because the current situation (the author speaks of *status quo*) cannot continue: the danger of seeing the desert extend further north and cross the barrier of the Atlas Mountains would seriously jeopardize the French colonization efforts undertaken in Algeria. And the author to quote "a great classic", namely the supposed state of the Maghreb in Roman times, is "a promised land, an abundant granary" (Lavigne 1869, p. 334). However, Lavigne develops a discourse that is somewhat different from that of his contemporaries, who largely blame the degradation of the environment on the Muslim conquest. According to him, the ruin of Northern Africa followed a movement considered "too regular, too successive" for it to be exclusively attributed to human action: "The Muslim invasion was not the only culprit, nature was complicit" (Lavigne 1869, p. 335). Would Man also care to "measure the land he has lost in Africa and try to reclaim it?" (Lavigne 1869)

In actual fact, Lavigne's project did not meet with great publicity. We find a rare evocation in the writings of Élisée Reclus, who a few years previously had patronized it, along with Charles Maunoir, to join the prestigious *Société de Géographie* in Paris.[18] How did they meet each other? Did Lavigne share the same political ideas as the great geographer? It remains a mystery. Whatever the circumstances, Reclus briefly evoked the project in 1875, to remind the geographical community that it

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[17] "Alongside the malady, nature has given us the remedy. Thus, nature, by calling the forests to the mountains, placed the remedy alongside the malady" (Surell 1870, p. 162).

[18] "They are presented and inscribed in the table: […] Mr. Georges Lavigne, presented by Misters Elisée Reclus and Maunoir." *Bulletin de la Société de Géographie*, 1867, p. 613. In addition, Lavigne was not a very active member; there is only a record of the transmission of an offprint of his writings on the breakthrough of the Isthmus of Gabès, in December 1869. Finally, his disappearance in 1886 was certainly announced in the *Bulletin* but this did not lead to the publication of an obituary.

was earlier than Roudaire's, and that it was part of a general movement that did not receive his favour:

> The success of opening up the Suez has given rise to many grandiose projects for a new development on this planetary surface. We are talking about nothing less than changing the distribution of the earth and key waters. Thus, Georges Lavigne proposed filling the chotts of the Algerian Sahara, and his project has since been noisily resuscitated under a different name; now Veniukoff, no less bold, wants to turn the steppes of Astrakhan into a sea! We do not know what the future holds for these two projects, but it seems to us that carrying them out would have very little use, out of all proportion with the enormity of the work done (Reclus 1875, p. 35).

However, Lavigne's dissertation received more significant publicity in Algeria, with large excerpts being reproduced in there, also where Roudaire was stationed, in the columns of the *Moniteur de l'Algerie* as well as the *Indépendant de Constantine*, in January 1870. Also, as highlighted by Georges Bernard in 1882, it seems established, in any case, that it was not Roudaire "[…] who first spoke [of the Inland Sea] in a public document […]" (Bernard 1882, p. 128). As Jean-Louis Marçot points out, in May 1874 two projects coexisted: a "civil" and a "military" project. The latter differed from the former only in terms of a few quantitative figures: the water volume of the future sea cost of works (estimated at 20 million francs, pending additional information from the Tunisian side). Yet, that put forward by Roudaire would in fact replace that of Lavigne, without the former recognizing "the least anteriority" or even deign to name it: "In his analysis, Roudaire does not forget anybody, neither his collaborators, nor the natives, nor the scholars, nor the explorers, not even Chanzy, the governor; except Lavigne" (Marçot 2003, p. 248).

But if posterity later remembered Roudaire's name, it is mainly due to the support of Ferdinand de Lesseps, whose networks, notoriety but also his (then) financial comfort allowed him to create the biggest publicity and, for some time, to obtain the help of the French government.

9.5   The Future of Roudaire's Ill-Fated Project

Alas, for developers (as for dictators), success is often not far from a fall. What happened next is much better known: on June 1, 1874, namely the month following the publication of Roudaire's article for the *Revue des Deux Mondes*, the project was presented in public during a session at the Académie des Sciences, in which the "victor of Suez", Ferdinand de Lesseps, participated. Lesseps declared himself as being in favour of Roudaire's conclusions and got the Academy to mandate a committee in charge of studying them in more detail, which was done with a report made in May 1877.

Meanwhile, following a national campaign in his favour, relayed by some important names in the French scientific press, the French State funded a first expedition commanded by Roudaire, in order to complete the topographical survey work (December 1874–April 1875) and in which the *Société de Géographie* was able to

include one of its members, Henri Duveyrier, a great expert on the same Saharan areas that he had travelled nearly 15 years before. The Algerian chotts (el Merir and Sellem) were explored again, the levelling operations confirming that the depressions were well below the level of the Mediterranean, from 15 to 30 meters. However, in both Italy and France, serious questions still persisted, especially about the Tunisian part of the project that had not yet been explored by Roudaire. Thus, a certain Edouard Fuchs, a mining engineer in the service of the Bey of Tunis, in a note read at the Académie des Sciences, contradicted the presentation made on the supposed outlet of the vast depression in the Gulf of Gabès: the distance from the last chott to the sea would be 35 to 40 kilometres instead of the 18 mentioned by Roudaire (Fuchs 1874). Likewise, the dunes thought to have "naturally" sealed the outlet of the Bay of Triton were not found, but instead there was a small succession of hills "of an elevation of 100 meters on average" (Reclus 1855, p. 166). It followed that instead of the originally planned 16-km canal, it would take one of 40, "and perhaps more" (Delestre 1874, p. 16), to bring the waters into the first Saharan depression that was encountered, of which we still do not know the exact altitude. In June 1875, an Italian scientific mission led by the Marquis Orazio Antinori, secretary of the Geographical Society of Rome, confirmed the picture painted by Edouard Fuchs, rejecting the Triton hypothesis. To satisfy any doubts and questions, in November 1875 Roudaire asked the Minister of Public Education for a special mission, this time intended to explore the Tunisian chotts.

During this second expedition (March–May 1876), it was shown that Chott Rharsa was well below sea level (at least 40 metres on average), as Roudaire had believed. But unfortunately for Roudaire, the bed of Chott el Djerid proved to be all above sea level, more than 15 metres above. In fact, this geographical reality constituted the beginning of the end for the project: indeed, the length of the inlet channel for marine waters went from 40 kilometres to more than 200, for an inland sea with a considerably reduced theoretical perimeter, from the 16,000 square kilometres of the initial project, to 8000 square kilometres. Meanwhile, the estimated cost of the works exploded; now there were 600 million cubic meters of material to excavate, at a cost estimated by some engineers to reach almost 1 billion francs (Huet 1883), instead of the 20 million that was originally expected. In 1874, Roudaire asked "[if he was] allowed to hesitate before this sum?" (Roudaire 1874, p. 348). At 20 million, perhaps not, but at 1 billion.[19] As for the effect of the potential body of water on the climatic characteristics, it remained to be demonstrated:

> Altitude itself seemed indifferent to the establishment of the desert conditions that it undermined more or less, according to the circumstances. There is no illusion to hold onto; the influence that the immersion of a surface like that of ancient Lybia, which could be below sea level, could have on the climatology of the Atlas, is a pure utopia. It would still remain null, even if this surface were increased tenfold (Pomel cited by Baraban 1886, p. 211).

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[19] Later, in 1881, Roudaire re-evaluated the cost of the project at 75 million then, later still, at 177 million. As a comparison, the total war damages demanded of France by the Germanic States following the defeat of 1871 amounted to 1 billion francs.

With doubts about the justification and feasibility of the project multiplying, the French government obtained the vote by the Chamber of Deputies (February 11, 1878) for an exceptional credit to finance a third expedition, led by Roudaire and joined by Ferdinand de Lesseps (December 1878–May 1879). Lesseps devoted himself more particularly to the exploration of the subsoil of Chott el Djerid, searching (in vain) for signs of the presence of a hypothetical vast underground lake hoped for by the promoters of the Inland Sea. His conclusions, made public, constituted the first blow to the project, and Roudaire was obliged to recognize the abandonment of the Triton hypothesis.[20] The second (and definitive) blow arose from the conclusions of the Higher Commission on the Inland Sea, intended to enlighten it, made up of no less than 55 members,[21] which the French Government initiated in April 1882. On July 7 of that same year, the latter, after having heard and exchanged with Roudaire on several occasions, finally came to a negative conclusion, despite the internal support of Ferdinand de Lesseps:

> The Commission, while paying tribute to Mr. Roudaire's interesting work, and to the courage and perseverance he has shown in the difficult studies he has pursued in recent years in southern Algeria and Tunisia, considering that the cost of establishing the inland sea seems disproportionate to the results that can be expected, is of the opinion that there are no grounds for the French Government to support this enterprise (Ministère des Affaires étrangères 1882, p. 546).

It was mainly serious doubts about the economic feasibility of the project that motivated the French State's final decision. To summarize, the experts criticized him for having seriously underestimated the cost for moving each cubic meter of earth, as well as for having neglected the question of the interest to be paid to the shareholders for the period corresponding to the filling the chotts, estimated at 15 years: "In these circumstances, the total cost cannot be estimated at less than 700 million" (Manès 1882, 14–16).

This blow was hard on both Roudaire and Lesseps; however, they immediately tried to make the best of a bad situation by pointing out that the commission had raised:

> […] no practical difficulty of execution and that this sea could not be harmful from any point of view, but that on the contrary, it would in many ways contribute to the development of our wealth and power in Africa (Roudaire 1883a, p. 88).

Also, following the opinion issued by the Higher Commission, they announced the foundation of a *Société d'études de la mer intérieure africaine* (Society for the Study of the African Inland Sea) to continue the project, but this time at the risk of

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[20] "At first glance, the altitude of the threshold of Gabès which reaches 46 meters above average sea level, the presence of limestone rocks encountered by the probe below the highest point of this threshold at an altitude of 11 meters above average sea level, seem to disprove the identity theory of the chotts basin and the ancient Bay of Triton" (Roudaire 1883a, p. 29).

[21] Engineers from various state bodies, eight deputies and eight senators, high-ranking military personnel, representatives from the Ministry of Foreign Affairs, figures from the French scientific world, including de Lesseps and Duveyrier, two representatives from the Algerian colony, etc.

a private company.[22] In this context, Roudaire went on a final mission in 1883 (from January 22 to April 4), with Lesseps once again joining him in the field. The summary report on these works then attempted to divert attention by returning some of the heavy objections raised by the project. For example, the famous threshold blocking the depression area behind the Gulf of Gabès: expected to be sand, since 1879 it had taken the form of limestone rocks. However, they would be more of an advantage than a hindrance: "In effect, they will provide the necessary materials for the execution of the jetties and port constructions" (Roudaire 1883a, p. 88). As for the crucial issue of the climatic change that would supposedly be initiated by the new sea, it is disposed of with the following statement: "The modification of the climate that will naturally lead to the presence of a very large body of water in the chott basin […]" (Roudaire 1883a, p. 88).

Tired, depressed but also overworked, Élie Roudaire died of exhaustion on January 14, 1885 at the age of 48, with the rank of lieutenant-colonel: "Roudaire died in Guéret of an injury received in the chotts of Melrir and Djerid or on the threshold of Gabès. Faith in the inland sea killed him" (Blanchot 1885, pp. 13–15) As for the Society for the Study of the Inland African Sea, it was converted thanks to the action of Commander Landas[23] in the operation of an agricultural colony of nearly 2000 hectares located at the Gulf of Gabès, at the mouth of Oued-Melah. It was subsequently dissolved in 1892.

9.6 In Conclusion: Utopias Never Die

This episode of the Inland Sea is, in our view, fully representative of the "France si moderne" ("Such a modern France") that was so dear to Paul Rabinow (1995). It perfectly illustrated the *modernist ideal* as defined by Vincent Berdoulay and Olivier Souveyran. In the major area of land development, it rested on a new organization of space that obeyed an economic and social logic that is placed on the substrate and replaces it (Berdoulay and Soubeyran 2000). It should be highlighted that during these same years, 1870–1880, projects that involved submerging vast depressed terrestrial perimeters under water became, for some authors, an indicator of the genius of the country that conceived them:

> […] From a political and moral point of view, what grandiose proof of our power, what an influence exerted on the mobile imaginations of an impressionable people, what a triumph achieved on this soil, where the age-old struggle between destructive Islamism and creative and progressive genius of ancient Christian civilization continues. We fear that in this approach, others do not surpass us (Poitou-Duplessy 1882, p. 15).

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[22] "If the state recoils from the cost, why shouldn't the private initiative and entrepreneurial spirit of which Mr. Lesseps is such a remarkable example not undertake it?" (Manès 1882, p. 16).

[23] Professor of topography at the École Militaire de Saint-Cyr, where he had succeeded Roudaire, he was put at the disposal of Ferdinand de Lesseps by the French Ministry of War.

Indeed, in addition to the Lavigne/Roudaire and Veniukoff projects (previously mentioned by Élisée Reclus), we can also mention the British project initiated in 1877 by Donald Mackenzie (1877), which intended to flood a vast depression located at over 60 metres below sea level, to the south of the Moroccan Atlas Mountains, between the Juby and Bojador capes, facing the Canary Islands: "Thus, perhaps [The English] would open a way to Timbuktu" (Poitou-Duplessy 1882, p. 16).

A few years later, in 1911, the journal *L'Année scientifique et industriel* echoed the plan of a certain French "teacher" by the name of Etchegoyen consisting of nothing less than

> […] flooding the Sahara, creating an inland sea, to modify its climate, fertilize its soil and to make Timbuktu a superb port, by digging an 80-kilometer canal to bring the waters of the Mediterranean to the parts of the famous desert that are below sea level (*Chronique géographique* 1911, p. 299).

The area, thus flooded, would represent an area equivalent to a quarter of the Mediterranean. This information would be taken up again the following year by G.A. Thompson in *Scientific American* (Thompson 1912) and would subsequently be reproduced in many Anglo-Saxon works.[24] In fact, it seemed that this was a hoax: in a small, exciting research project that he dedicated to the mysterious Etchegoye,[25] Inaki Irazabalbeita states that this French professor left no trace in the scientific production of his time. I fully share this opinion and even suspect the fact that "intoxication" was in fact part of Algeria, home of the Inland Sea. Indeed, how else to explain the fact that the newspaper *Echo d'Alger* was able to transmit G. A. Thompson's article in its columns, especially with the following "apocalyptic" conclusion?

> Professor Etchegoyen, a very serious scientist, has just made a sensational presentation to Scientific American. […] The different plateaus of the desert would form fertile and extensive islands near Europe, huge profits not only for France but for all Europe. […] What is very interesting is the prospect that invading a part of the Sahara with water would shift the centre of gravity and change its axis (*L'Écho d'Alger* 1912).

Be that as it may, the idea of an inland sea traversed the whole of the twentieth century, following in the footsteps of the plans for the vast Egyptian topographic depression of Qattara (26,000 square kilometres), located between 120 metres and 80 metres from the Mediterranean. A project initiated in 1912 by the German geographer Penk, and then taken up again in 1927 by the English (via the figure of Dr. John D. Ball). According to their sponsors at the time, it consisted of diverting some

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[24]As in the following example: "Verne's idea was revived in whole cloth in 1911 by a French scientist named Etchegoyen, who again proposed to convert large portions of the Sahara into an inland sea by digging a 50-mile canal on the north coast of Africa. He touted the ease of construction and the massive benefits: more fertile soil and cropland, a cooler local climate, and a great new colony for France along the "Sea of Sahara" (Fleming 2011, p. 205).

[25]Can be consulted in Basque at the following address: https://www.jakin.eus/show/cc1d-a42b2c0930e4293fba2f0c4bfd457a89ac34 [consulted January 12, 2018].

of the water of the Nile and pouring it, via a pipeline, into the depression to produce hydropower:

> The electrical and fresh water generation from the Qattara Depression pumped storage system would contribute to the planned new population centres in what is presently arid unpopulated desert (Ragheb 2014).

Finally, 2010 saw the return of the Roudaire project, under the pen of Yves Paumier, a declared supporter of French politician Jacques Cheminade, a regular at the French presidential elections[26] and known by the public, among others things, for declaring his wish to colonize planet Mars. Now, it is a matter of using a nuclear power plant carried by a boat anchored in the Gulf of Gabès, to desalinate saltwater from the Mediterranean and then, using gravity, to pour it into the Tunisian and Algerian chotts.

Projected for 2050, Yves Paumier describes the great city of nearly half a million inhabitants, founded on the banks of the Inland Sea, Roudaireville-les-Palmiers:

> For forty years, the youth of the Maghreb, instead of rushing to the deprived areas of Paris, Berlin, Amsterdam or London, has settled here; because they receive good salaries and their children have access to the best health care. It is in the fields of agrochemicals and spatial research that thousands of jobs have been created here over the last forty years. All of this is the result of "the great blue revolution", which made water freely available. What a rupture! […] since 2011, with the Paumier-Roudaire Plan, the lakes are like mirages and thousands of oases have been created. Each is home to one or more new cities, connected by a network of fast transport to distant countries (Paumier 2010).

Combined with the progress of agriculture and the development of communication links, the Paumier-Roudaire Plan would put a stop to Sahelian emigration.[27] In the end, the author called on the French planning engineers to finally launch, nearly a century and a half later, the great dream of Roudaire and Lesseps:

> It is today that independent Africa will do it with its own scholars, by taking up the best of this French developmental tradition, extinct since British Monetarist domination, and that it will hopefully find cooperation with the new Asian powers to get around the old feudalism (Paumier 2010).

In conclusion, utopias never die, but their general philosophy sometimes turns out to be diverted; and Roudaire's Inland Sea is a striking example.

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[26] With 0.28% of the votes in the 1995 presidential election, then 0.25% in 2012 and finally 0.18% in 2017. His political party, *Solidarité et Progrès*, is considered by some authors as a sect, which Jacques Cheminade refutes vigorously.

[27] "Beyond the Blue Revolution itself, two major axes of road and rail transport made the Sahara accessible, the first linking the Algerian-Tunisian Maghreb to Lake Chad and Central Africa; the second connecting the Algerian-Moroccan Maghreb to the interior delta of Niger and West Africa. All this activity marked the end of the population exodus to the north and part of the young population of the Maghreb left the overcrowded edges of the Mediterranean for these places, that were finally welcoming." (Paumier 2010).

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Chapter 10
The "Soft City" of EU Power Elites: Athens from Neoclassical Capital to "Oriental" Margin

Lila Leontidou

The city as we imagine it, the soft city of illusion, myth, aspiration, nightmare, is as real, maybe more real, than the hard city one can locate on maps in statistics, in monographs on urban sociology and demography and architecture.

(Raban 1974, p. 4)

Abstract Geographical imaginations are reflected in "soft cities" of the mind and affect "hard" material cities. Athens has been one of the clearest formations of this interplay throughout its recent urban history. European power elites have often superseded the resident population in imagining "soft cities" and then affecting their materialization in art and architecture or economic restructuring. This chapter presents a contrast of two conjunctures when global imaginations rather than national ones constructed the city of Athens: the beginning of the city building process in the nineteenth century and the present of the twenty-first century. In the 1830s, neoclassical architecture, re-imported to Greece's new capital by the Bavarian administration, was in line with the ambition of forging an identity for Athens inhabitants; and in the 2010s, the city of crisis and austerity was realized in EU-inspired visible but also invisible "soft" ways, reminiscent of the stigmatization of the Mezzogiorno by North Italians in Gramsci's time. Dismissive versions of "Orientalism" or "crypto-colonialism" in the 2010s offer the opportunity for a theoretical contrast between this recent dystopia and the "soft city" of eutopia in the 1830s. After the comparative analysis, the question of ways out of dystopia is posed, with reference to popular resistance to the neoliberal offensive during and after the grassroots "movements of the piazzas," which has shaken the broader Mediterranean since 2011.

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10.1   Introduction

The past of Mediterranean cities, especially the foundational cities of Athens and Rome (Leontidou and Martinotti 2014), redefines their present in ways emerging from global imaginations rather than national ones alone. For several millennia, shifting Mediterranean identities have been constantly negotiated within Northern and Western European and American models. The creation of complex "soft cities," in Raban's sense (Leontidou 2017), has tilted toward geographical imaginations forged abroad. Raban did not anticipate the interference of foreigners' gaze at the "soft city" as clearly and strongly as has happened in most Mediterranean cities for at least four centuries. In contrast to Calvino (1974), he mainly considered domestic images of the "soft city."

However, the global South has been frequently conceptualized by foreigners, who have often relegated its cities as "exceptions," because these cities have always challenged and even turned around mainstream positivist urban development models based on hard data (Leontidou 1990, 1993, 2011): in the nineteenth century, they missed out on the industrial revolution and overt colonialism and went through urbanization without industrialization (Leontidou 1989, 1990); in the twentieth century, they spatialized popular demands for the "right to the city" by reversing the Burgess spatial pattern through spontaneous suburban popular and squatter settlements and a bourgeois inner city (Leontidou 1990), rather than bourgeois suburbs on the urban periphery and poverty in the urban core, as found in American cities (Burgess) and in Engels' Manchester of the 1840s. This must not be compared to precapitalist city forms, because it has followed the Southern particular capitalist development trajectory affecting urban form: it reverses Northern patterns and verges on postmodernism (Leontidou 1993; King 2019). Mediterranean cities have also kept challenging mainstream positivist urban development models in the twenty-first century, suffering from the debt crisis, but contesting it by spurring social movements and snowballing global upheavals of resistance to autocracies. People mobilized for direct democracy and contested neoliberalism, austerity, and the democratic deficit in the EU (Leontidou 2010, 2012a, b, 2013, 2014, 2015).

One such striking instance is our case study, Athens, the city of collective memory *par excellence* (Boyer 1996). It stands between Europe and the heart of the Mediterranean and has followed a discontinuous and uneven itinerary over the course of millennia. Athens carries the main particularity of Mediterranean "soft cities" to the maximum degree: in that their identities, and also their landscapes and institutions, are often constructed abroad (Leontidou 2013). It is indeed a "soft city" seen through the eyes of Greeks, but also of "others," continually re-invented and re-interpreted abroad by an international multitude: by northern European and

American intersubjectivities, which have affected urban materialities since Roman times and through history. Athens constitutes a "theatre of memory," which has been conceptualized as ancient and modern, original and copy, informal and postmodern (Leontidou 1993), tourist destination and site of romantic travel, as well as migration and poverty, throughout its life as a capital city, which only dates from 1834. This is where our narrative begins.

We will adopt a snapshot approach to help understand some key metamorphoses of the city, opting to focus on only two conjunctures in its beginning and its present, the nineteenth and the twenty-first century. Their comparison and contrast will help us follow the antinomies of the construction of "soft cities," involving not only Athens, but other Mediterranean cities as well. The first instance in the nineteenth century is the "soft city" of the Bavarians during the Greek nation-building process, with Athens as the new artificial capital; and the second one belongs to the twenty-first century, when neoliberalism and the crisis are giving a negative overturn to the "soft city," emanating primarily from countries of Northern Europe imposing austerity on the South. These are two very important conjunctures in the city building process, the creation of the "hard city", and shifts in urban culture trends.

10.2   The Nineteenth Century Neoclassical Artificial Capital City Beyond Utopia[1]

Europeans have always branded Athens a "city of memory" and global patrimony (Knox 2014). This imagined "soft city" was reincarnated in the nineteenth century, after four centuries of Ottoman rule, as a new city. It was declared as the capital of Greece in 1834 and has been one of the most successful artificial capitals in the world, which grew from a village of 12,000 inhabitants in the 1830s into a city of 242,000 inhabitants at the turn of the twentieth century. It was created by Bavarian royalty and the European "protective powers" through specific cultural materialities and, most of all, architecture (Bastea 2000; Leontidou 1989, 2013).

Northern Europe drew on Hellenism and rediscovered classicism in the Enlightenment, through the movement of neoclassicism (Boyer 1996). This style was inspired by Greek ancient monuments, and especially the Parthenon on the sacred rock of the Acropolis, which was and still is an icon of European civilization and a symbol of democracy (Loukaki 2008). Classical architecture had been re-adopted in Europe since the Renaissance and in the USA by American republicanism before the eighteenth century (Loukaki 2008; Leontidou 2013). Foreigners were possessive of these monuments. The Acropolis and the archaeological sites have remained for centuries the object of power conflicts over property and appropriation (Loukaki 2008; Leontidou 2013). Foreigners even stole their treasures: in 1805 Lord Elgin dismantled the Parthenon and Erechtheion monuments

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[1] This section draws freely on Leontidou 2013, pp. 113–5.

and smuggled their marbles to the British Museum, which has repeatedly refused to return his loot to Athens to reunite the monuments on the ancient site and in the new magnificent Acropolis Museum.

King Otto came to Greece accompanied by architects, surveyors, and archaeologists to rebuild the city in the neoclassical style. This style was thus re-imported into Greece, after liberation from Ottoman rule, from Northern Europe (and America). Athens was created as a new capital and a symbol of Hellenism as imagined by Europe (Bastea 2000; Leontidou 1989, 2013) through neoclassical buildings, which forged modern Hellenic identity through a western gaze, but were also "naturalized" by the inhabitants who lived among the classical ruins. In this way, the Bavarians' neo-colonial rule became acceptable through the urban landscape, beyond utopia (Bastea 2000; Leontidou 2013).

Neoclassical buildings, monumental architecture and modern urban design were mostly funded by diaspora Greeks (Leontidou 1989, 2013), who celebrated Hellenism by re-importing it to Greece via European neoclassicism. Athens was built in rhythms and canons which were quite familiar with Greek antiquity. Planning teams also initiated neoclassicism by adopting the ancient "hippodamian" system of orthogonal street layout, with the explicit aspiration to erase irregular Ottoman settlements and recover Hellenism through civic design, in a process of "de-turkization" (Leontidou 1989, 2013). In fact, planners hardened a "soft city," the unreal landscape represented on blueprints using the ancient monuments as *décor* for the royal palace, as in the outrageous plan drawn up by Schinkel, whose drawings, drafted without any visit being paid to Athens (Bastea 2000; Biris 1966), were fortunately never implemented on the ground. This reliance on impression, perception, and imagination rather than reality becomes paradigmatic and underlines the status of Athens as the "soft city" par excellence: because the "hard city" was subsumed to the "soft city" of European power elites.

Through these strategies, colonial domination was cryptic and underplayed (Bastea 2000; Leontidou 1989). This crypto-colonialism (Herzfeld 2002) was a peculiar colonial penetration not only by the European "Great Powers" and Bavarian royalty but also by the peculiar Greek *comprador* bourgeoisie living abroad, especially in places of "unredeemed" Hellenism. In a way these affluent diaspora Greeks colonized their own country (Tsoucalas 1977) and also funded the decoration of the urban landscape. Rich "Great National Donors," residing abroad, generously funded the monumentalization of the new capital and other Greek towns with conspicuous neoclassical buildings including schools, universities, libraries, stadiums, usually bearing their names (Leontidou 1989, 1990). The best example is the celebrated iconic neoclassical "Athenian trilogy" – the buildings of the University, Academy, and Library – located in the core of Athens and shown in Figs. 10.1, 10.2 and 10.3.

After the 1870s diaspora Greeks started repatriating (Tsoucalas 1977; Leontidou 1989, 2013). This revealed and deepened a dualism that had been lurking in Athenian society for a long period. There were differentiations by social class and culture but also within fractions of classes, like the division between diaspora Greeks and some "heterochthones" (those born abroad), on the one hand, and natives on the other, or the elites versus the petty bourgeoisie (Leontidou 1989, 2013). There were clashes

Fig. 10.1 The National Library. Architect: T. Hansen (built in 1884–1902). Funded by P. Vallianos. (Photo by Leontidou)

between cosmopolitanism versus local tradition, (Diamandouros 2000), Westernization versus provincialism, (neo)classicism versus the byzantine tradition, planning versus anti-planning attitudes and localism, and questions of "greekness," which also cut through language, creating bilinguality: a highbrow and a popular language were both being spoken (Leontidou 2013). The population developed different sub-cultures and related dual attitudes to urban renewal and speculation. Some citizens objected to the implementation of the plans that others, or sometimes they themselves, had asked for (Bastea 2000; Leontidou 1989, 2013). This underlined the antinomies of public attitudes to planning. On a broader level, cosmopolitanism clashed with provincialism or at times nationalism.

The foreign "protective powers" were entangled in these waves of cultural ambiguity. Different national elites, e.g., German Royalists and English Republicanists, controlled different sections of the government. These, together with the peculiar *comprador* bourgeoisie of Greeks living abroad and now repatriating, stirred power plays around Greek dualism and bilinguality (Leontidou 2013). At one extreme, some foreigners expressed their scorn for the nascent nation struggling for development and industrialization (About 1855). At the other extreme, they admired classicism to the point of possessiveness, caught in the evocative symbolism of the "soft city."

Fig. 10.2 The University (during a 2012 demonstration). Architect: C. Hansen (built in 1839–1864). Funded by collections, diaspora Greeks and royalty. (Photo by Leontidou)

By borrowing the conceptual apparatus and classical architecture and re-creating it on the site of ancient Athens, Northern Europeans and especially Bavarians aspired to see the re-Hellenization of Greece by neoclassicism and "de-turkization." They were confident that they were moving with the tide and the tradition of the city, where classicism was born. In reality, however, they were forging a modern Hellenic identity as imagined by Europe. It was a positive, or even idealized, image of the "soft city," a utopia. This constant reference to antiquity was followed throughout the history of Athens, for better or for worse, until the twenty-first century, when all this culminated with the turn-of-the-millennium Olympic illusions in 2004 (Leontidou 2020).

In-between transformations are not discussed in this chapter. As we have adopted a snapshot approach to understanding some key metamorphoses of the city (Leontidou 2013), we will skip glimpses into the developments between the beginning and the present of Athens, between the nineteenth century just discussed and the twenty-first century. However, we may briefly point to three important transformations during the twentieth century, in the context of liquid modernity (Afouxenidis et al. 2019):

• The interwar prototype of fast and spontaneous Mediterranean urbanization engulfed Athens after the arrival of refugees from Asia Minor in 1922. This

Fig. 10.3 The Academy. Architect: T. Hansen (built in 1859–1885). Funded by Sinas. (Photo by Leontidou)

started the development of the postwar large agglomeration, which grew through fast urbanization, popular illegal building on the outskirts of Athens, as well as speculative construction through the destruction of its ancient, Hellenistic, Roman, Byzantine, and neoclassical heritage and many layers of history (Leontidou 1990). The Athenians and the Greek migrants kept smudging the "soft city" imagined by European power elites.

- After 1981 and EU integration, the "European" city went through a major turning point in institutional reform, legislation, and attitudes to environmental restructuring. This came right after the fall of the 7-year dictatorship in Greece (1967–1974) and was the major transition in Athens and throughout Southern Europe (Leontidou 1990).

- After the 1990s and into the new millennium, the "Olympic" city voiced claims to the "glorious" antiquity again but clumsily adopted entrepreneurial place marketing in order to attract mega-events to Athens (Leontidou 2020). These aspirations started in the 1990s with the unsuccessful bid for the 1996 "Golden Olympics", but the city carried on trying and was indeed successful for a moment in 2004: the Olympics were then staged in Athens as an actual performative fact, filling the entrepreneurial city with prestigious constructions created by global architects (Leontidou 2006) and re-enacting imaginaries of Hellenism in the

opening and closing ceremonies. What followed the 2004 Olympics was dramatic, however, as the utopia was reversed toward the bleak dystopia of the debt crisis during the 2010s.

10.3   Crisis and Emergent Orientalism in the Twenty-First Century EU

Crisis is a Greek word. It derives from the ancient word for decision (in close association with tragedy) and judgment; but it also implies hardship or danger; and Hippocrates' medical metaphor meant the turning point of an illness, wherein with appropriate medicine the organism might return to its usual operation, or it might continue being in a vicious circle or crisis that might even result in the death of the crisis-laid entity. Much later, in Marx's and Habermas' use, crisis meant a turning point in the development of a contradiction that may threaten a social entity's systems integration. Today, the meaning of "crisis" in Greece oscillates between judgment and shock, as most scholars tend to stress (Vradis and Dalakoglou 2011, p. 14). However, crises are as old as capitalism:

> If the ruling class has lost its consensus, i.e. it is no longer "leading" but only "dominant", exercising coercive force alone, this means precisely that the great masses have become detached from their traditional ideologies, and no longer believe what they used to believe previously, etc. The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appear. (Gramsci 1971, pp. 275–276)

In fact, after the unexpected violent riots of 2008 (Vradis and Dalakoglou), Greece has been in the spotlight since the very first days of the debt crisis with all its morbid symptoms, to the point that Paul Krugman referred to the "Hellenization of discourse" in Europe (Leontidou 2013). Greece became the scapegoat of EU neoliberalism. In 2010 the country came under so-called *Troika* control: IMF (International Monetary Fund), ECB (the European Central Bank), and EC (EU-zone countries) formed a tripartite new power consortium governing Greece. For several years after this, Grexit was expected. Athens became the city par excellence of the EU crisis, suffering from austerity and consequent urban degeneration. Northern European, especially German, mass media and power elites have been revisiting Athens as a "soft city" of dystopia (Leontidou 2012a, 2013, 2014; Tsilimpounidi 2012). In the EU of the 2010s, there is an obvious process of the reconstruction of the European South – or rather of the periphery, the so-called PIIGS, including Portugal, Italy, Ireland, Greece, Spain – which echoes Gramsci's insightful analysis of "the Southern question" in Italy (Leontidou 2012a). Northern Europeans resurrect Gramsci's analysis (1971, pp. 70–71):

> Hegemony of the North over the Mezzogiorno in a territorial version of the town-country relationship – in other words, that the North concretely was an 'octopus' which enriched itself at the expense of the South.

The dynamics of dependence and regional underdevelopment in interwar Italy were shaped by the restructuring of industrial production but were also manifestly cultural rather than just economic (Gramsci 1971; see Leontidou 2012a for an extended analysis). The Mezzogiorno was stigmatized as a "ball and chain" to the development of the North. Gramsci poignantly argued that according to Northern elites:

> The causes of poverty were not external, to be sought in objective economic and political conditions, but internal, innate to the population of the South (…) the organic incapacity of the inhabitants, their barbarity, their biological inferiority. These already widespread opinions (Neapolitan "vagabondry" is a legend which goes back a long way) were consolidated and actually theorized by the sociologists of positivism (…), acquiring the strength of "scientific truth" in a period of superstition about science. (…) Meanwhile, in the North there persisted the belief that the Mezzogiorno was a "ball and chain" for Italy, the conviction that the modern industrial civilization of Northern Italy would have made greater progress without this "ball and chain", etc. (Gramsci 1971, p. 71)

The same interplay of enrichment of the North at the expense of the South, as well as the stigmatization of the latter, has reappeared in the EU context during the 2010s. In fact, "the North" in Europe today profits and grows at the expense of the South, while at the same time castigating its "laziness," just as in Gramsci's interwar account of Italy. His basic distinctions and antitheses between hegemonic and coercive power, productive and parasitic activities and the concept of "spontaneity" return to the surface of the EU political economy (Leontidou 2012a, b). What is worse, the stigmatization of whole ethnic-national groups brings to the surface memories of interwar fascist Germany, where different groups were vilified as a whole and then destroyed with ethnic cleansing and genocides (Leontidou 2013). In the 2010s, German magazine covers with offensive representations have frequently appeared (Figs. 10.4 and 10.5) despite the fact that, even according to *Spiegel's* economic historian Albrecht Ritschlon 21.06.2011, Germany is the "biggest debt transgressor of the 20th century." It owes an obligatory wartime debt to Greece, still not paid up, on top of the war reparation payments due (Glezos 2012); but this is hushed up, as if indemnity should be given (Leontidou 2013).

Meanwhile, the globalized neoliberal economy with its powerful financial system of banks and credit-rating agencies interferes with the state of the euro, suppressing national competitiveness and boosting spreads in the global markets. Credit-rating agencies like Moody's and Standard & Poor's issue discursive evaluations that become self-fulfilling prophesies (Krugman 2012) and thus exercise global governance, marginalizing national parliaments and EU political institutions (Leontidou 2013). "Markets" arbitrarily determine the creditworthiness of whole countries, engraving them in geographical imaginations (Gregory 1994) for the periphery and the European South in neoliberal Europe. Just as the bank deposits of Cypriots were ravaged after being branded as "money laundering," so does the system of "accumulation by dispossession" (Harvey 2003) squeeze populations in the Eurozone and beyond. Intersubjective "power-geometries" (Massey 2005) sweep the European periphery to impoverishment.

Fig. 10.4 The offensive representation of Venus de Milo draped in the Greek flag, in the German magazine *Focus*, February 2010, became viral (see https://www.focus-magazin.de/) – see also 29.11.2011 (https://greece.greekreporter.com/2011/11/29/focus-magazine-on-trial-over-satirical-venus-cover/ – last accessed 7.11.2019)

> As the Greek experience demonstrates, any government that defies austerity will instantly clash with the global institutions that protect the 1 per cent. After the radical left party Syriza won the election in January 2015, the European Central Bank, whose job was to promote the stability of Greek banks, pulled the plug on those banks, triggering a €20 billion run on deposits. You will find no minutes, no voting records, and no explanation for what the ECB did. It was left to the right-wing German newspaper *Stern* to explain: they had 'smashed' Greece. It was done, symbolically, to reinforce the central message of neoliberalism that *there is no alternative*. (Mason 2016, p. xi)

This is Thatcher's TINA, as revived at present. But there is worse: European assessments, ratings, scorn, and accusations against the periphery construct "soft cities" with inferior cultures of "laziness" – "biological determinism and moral-political admonishment" (Said 1978, p. 207) – and constitute systematic stigmatization bordering on racism. In the "shock doctrine" of our days (Klein 2007),

Fig. 10.5 *Der Spiegel* (http://www.spiegel.de/spiegel/) with yet another offensive representation of the mourning of the euro over the Greek flag

the South is imagined as a field full of "untrustworthy," "immature" people and so-called "delinquent" youths rioting against the common sense of civilized nations. These people are actually considered responsible for the crisis rather than its victims, as "the lazy, unreliable, and delinquent Southerners" (Leontidou 2013, 2014).

A new version of Orientalism has thus emerged in Europe – "as a body of ideas, beliefs, *clichés*, or learning about the East" (Said 1978, p. 205; see also Leontidou 2013); however this time it is the Mediterranean periphery. Southern Europe is haunted by narratives which are well described by Said (1978) for other times and lands. The production of "the Orient" has not been the same as in nineteenth century Britain or France, which we find in Edward Said's postcolonial critique, but the analogy is similar:

> Orientalism is – and does not simply represent – a considerable dimension of modern politico-intellectual culture, and as such has less to do with the Orient than it does with 'our' world. (Said 1978, p. 12; for an extended analysis, see Leontidou 2013)

The analogy is quite disturbing, too, because we are supposed to live in a unified Europe (Leontidou 2013).

> To say simply that Orientalism was a rationalization of colonial rule is to ignore the extent to which colonial rule was justified in advance by Orientalism, rather than after the fact. (Said 1978, p. 166)

Narratives of "laziness" and "corruption" have been used to justify austerity for the Greeks. The country has been continuously stigmatized as the inert and corrupt space responsible for the debt crisis and has been caught up in this vicious circle of "Orientalism." Negative branding has become the justification for plundering Greece and for not paying German war debts. In Italy during the economic and political crisis in May 2018, large sections of the population responded to reporters that they resent the fact that the EU is basically governed by Germany. Recent research has confirmed the enrichment for Germany in the context of the euro and its low cost of borrowing compared to austerity and poverty in the periphery, as well as the attraction of skilled labor and the brain drain of the South, due to youth unemployment there. The other side of the coin is Greece, a case study of "dispossession through naming" (Gregory 1994, p. 171).

As for the Greek capital, media framing at home and abroad took over from EU politicians and helped in the negative construction of the identity of Athens as the paradigmatic "soft city" of the crisis. Violent riots were overpublicized and exaggerated, while more massive urban social movements that assembled peacefully were underplayed in yet another process of "othering" (Leontidou 2013). The media colored most mobilizations as violent riots and activists as delinquents.[2] Spectacles of urbicide dominated media discourses and images in Greece and abroad.[3]

The punitive context culminated on the night of 11 June 2013 at 11:10 pm, when the screens of the Hellenic TV suddenly went black (Leontidou 2014). The conservative Greek government closed down four channels, along with tens of radio stations in several towns, because journalists and employees were allegedly "corrupt" and "sinful." Hellenic TV returned two years later, when Syriza came to power. After its defeat in the 2019 elections, the spectacle of austerity hit the silver screen with K. Gavras' film, *Adults in the Room*.

Orientalism lasted for a decade after the 2008 riots. It has been also extended to tourism, as is most obvious in *The Guardian* advertisement of 28.3.2018, which offered package tours[4] to crisis-hit places and refugee camps of Greece, promising to:

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[2] Though it should not come as a surprise that destructive riots occasionally break out as impoverishment hits Athens (Vradis and Dalakoglou 2011), peaceful demonstrations are much larger (Leontidou 2013). Visibility is highest for violence, unfortunately, and even for arson attacks on historic buildings in selected inner-city areas, which may well not have been random events (Leontidou 2012b).

[3] Street fighting and destruction of shop windows, pavements and cars command heavy emphasis by governments and media. This attention may have contributed to their recent configuration into fascist violence on the city streets and open markets (Dalakoglou 2012).

[4] The package tour lasted for 7 nights and cost £2500 per person.

- Travel with the journalist Helena Smith.
- Get access to politicians, journalists and NGOs.
- Be guided around by the journalist Manos Stefanakis from Samos.
- Visit problematic vineyards and wineries and discuss their recovery.
- Meet NGOs working with refugees in Samos.
- Discuss Syntagma Square protests in situ, with journalists and politicians.
- Explore charities supporting people through austerity.
- Discuss the refugee crisis in the port of Piraeus.
- Meet families in crisis.

In other words, the package tour was to turn misery into spectacle and commodity during the most hideous Oriental (Said 1978) and crypto-colonial (Herzfeld 2002) phase in Europe. The advertisement was withdrawn a few days later, due to trolling on Facebook, twitter, and other social media.[5] Activists and scholars were furious with the ossification of the Greek problems – crisis, poverty, refugee crowds, etc. – into tourist commodities and the plea to "sensitive" liberals to help by spending money on their trip.

This is not the only case of touristification of misery with disrespect to the dignity of a whole population, although it is the most hideous. There are several neighborhoods in the "soft city" of Athens which arouse the curiosity of visitors. We may envisage the Greek capital as fragmented into smaller "soft" enclaves branded by the elite and the media as pockets of insurrection and fear and attracting curious visitors and foreign NGOs. The notorious neighborhood of Exarchia, branded as a riotous community since the days of resistance against the junta, in the early 1970s, later negotiated a "spatial contract" with the broader city (Cappuccini 2017; Chatzidakis 2018; Vradis 2019); in other less famous neighborhoods, such as Metaxourgeio, fear and gentrification have alternated in recent years (Alexandri 2015). In opposition to these enclaves of the Left and anarchism, there is Ag. Panteleimon, where neo-Nazi formations such as the Golden Dawn have gathered to "assist" Greeks and terrorize migrants (Afouxenidis 2012; Pettas 2019 for this and other examples).

10.4 Hardening the "Soft City": Urban Dystopia in the Twenty-First Century

The "soft city" of the European power elites in the 2010s is an Oriental stereotype constructed abroad. After the Bavarians in the nineteenth century, Athens is once again haunted by German power elites, but the eutopia of neoclassical urbanism has now given way to negative and offensive stereotypes for a dystopia, which becomes a self-fulfilling prophesy. The "hard city" is affected, again. "Othering,"

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[5] See, among others, https://www.rt.com/news/422572-guardian-refugee-tourism-greece/ (last accessed 8.3.2020).

naming, branding, media framing, and the whole edifice of the "soft city" presented in the previous section have been used as the basis for austerity measures imposed by the EU and creating the "hard city." As for the "lazy" Greek workers, they keep suffering cutbacks in salaries and pensions and heavy taxation across all income groups (Leontidou 2013). While austerity impoverished large segments of the population including the middle classes, there was only talk and no real effort made against tax evasion (or in effect tax indemnity), or even for the collection of unpaid certified taxes owed by entrepreneurs and smuggled abroad by the rich (Leontidou 2013).

In this sense, Greece has become devoid of all of the achievements of European culture over the centuries. It witnesses an urban crisis, involving the annihilation of the welfare state and labor legislation, the pauperization of the middle classes and the consequent urban blight, unemployment, closures, and bankruptcies (Arapoglou 2019). Besides cutbacks in salaries and pensions and other austerity measures imposed by the lenders of the proverbial Memoranda of Agreement with the Greek government, heavy taxation has cleverly used a characteristic of Greek society which is much milder in other European countries: the high rates of owner-occupation. This was used as an intentional policy during the interwar refugee inflow and was boosted afterward (Leontidou 1989, 1990). Now urban owner-occupiers, along with all property holders, have to bear a heavy tax burden called ENFIA, which is actually a rent payment imposed on both owner-occupiers and proprietors who are often unable to let or sell their properties. Proprietors thus become tenants. Taxes are levied both on rents received from tenants, and on properties held, on assets yielding no profit. ENFIA levels do not correspond to the actual price of land and buildings, which the tax authorities disproportionately boost in order to levy this heavy tax. Along with other direct and indirect taxes, this constitutes "accumulation by dispossession," as evident in the thinning out of savings every consecutive year of the 2010s.

South European cities are especially vulnerable, and they are sometimes compared to Third World cities. However, population dynamics are the opposite of theirs. Depopulation does not characterize Third-World cities, while Southern Europe suffers from urban decline in all respects, as disurbanization and blight in Athens underlines (Table 10.1).

Athens entered the EU with a population of 3,038,245 (Leontidou 1990) and the new millennium with 3,187,734 inhabitants (Greater Athens 2001, 29.07 percent

Table 10.1 Population change in the capital of Greece, 1981–2011

Urban sector	1981	1991	2001	2011
Attica	3,369,425	3,523,408	3,761,810	3,812,330
Greater Athens	3,038,245	3,072,922	3,187,734	3,122,540
Central Athens	885,737	772,072	745,514	655,780

Source: adapted from the Greek Statistical Service (ESYE & ELSTAT) by the author

of the Greek population) or 3,761,810 if the broader Attica region is included. But now the population is shrinking below the level of natural increase: according to provisional data of the 2011 census, 3,122,540 people live in Greater Athens (28.94 percent of the Greek population) and 3,812,330 in the whole of Attica, which keeps growing, but not as fast as during the periods of urban sprawl in the 1990s (Chorianopoulos and Pagonis 2019; Leontidou et al. 2007). The high dimensions of depopulation are concentrated in the central Athens municipality. It had grown quickly in the past and reached a population of 885,737 people in 1981. It then gradually declined, especially as economic activity displaced the population to the suburbs. Central Athens had 745,514 inhabitants at the turn of the new millennium, but then it lost about 100,000 inhabitants plus the natural increase of its population. The census found only 655,780 inhabitants in the center by 2011. No matter how many clandestine migrants the 2011 census missed, it is a fact that Greater Athens is no longer the fast-growing city it was in the twentieth century. The population of Greece declined too, but in fact most of the shrinkage originated in Athens. Outward movements to villages as well as a brain drain of young people migrating abroad are no longer counterbalanced by foreign migrant waves, and such waves actually deepen the immiseration of the population in the country. Moreover, after de-industrialization from the mid-1970s (Leontidou 1990), twenty-first-century Athens has been undergoing de-tertiarization as well: closed-down shops on every street and corner have outnumbered those that opened in the years of the crisis. The whole urban economy has collapsed due to austerity, with shop closures and bank-ruptcies, and of course their corollary: escalating unemployment, which affects over half of the youngest population and over one-third of those in their late 20s (Table 10.2).

Unemployment rose rapidly during the crisis of the 2010s (Arapoglou 2019) and has created a brain drain of immense proportions for a small country such as Greece. Greek professionals have been leaving throughout the twenty-first century (Labrianidis 2013), but the movement intensified during the years of the crisis, because of a lack of skilled labor demand. This has adversely affected the health and education sector, science and technology, and overall development in Greece.

Table 10.2 Greek unemployment by age group, 2011–2016 (ELSTAT)

Age group	February 2011 (%)	February 2016 (%)
15–24	39.9	51.4
25–34	21.0	31.6
35–44	12.7	21.4
45–54	10.3	19.6
55–65	7.7	19.3
65–74	2.5	12.0

Source: adapted from the Greek Statistical Service (ELSTAT) data by the author

10.5   Some Thoughts on Eutopia/Dystopia

We have analyzed above how the recent urban history of Athens started with a "soft city" of eutopia in the 1830s and ended up with one of dystopia in the 2010s and how these "soft cities" affected "hard cities" in concrete ways. In conclusion, instead of this "soft" vs. "hard" cities dualism, it might be preferable to speak of "softening" or "hardening" cities in discourses, memoranda, agreements, institutional arrangements, financial measures, and all such issues concerning the population which entered a debt crisis without being responsible for it.

Our analysis has also shown that temporal shifts between eutopia and dystopia were mainly brought about by foreign elites rather than native populations. The role of European power elites and especially Germans in the creation of "soft cities" was immense. Foreigners, who basically governed Greece, were pursuing their own geographical imaginations, projecting them onto the city, and realizing them through their material implementation in art and architecture during the nineteenth century and through austerity and memoranda in the twenty-first century. In this way, they have affected the "hard city," not because "soft cities" were imagined exclusively by foreigners, but rather because of power geometries, which brought them to tell convincing stories and interfere in urban as well as national development, for better or for worse.

The shift from eutopia to dystopia in Athens is in line with the analyses by Raban (1974) and Calvino (1974): these authors have perceived the temporal shifts but have also seen dystopias and eutopias interpenetrate each other in one and the same urban space-time. And if we follow Calvino's Marco Polo rather than Raban, who dwells in dystopias, we have to stress that even when the Mediterranean "soft city" is seen as a eutopia, this always happens in an interaction or mixture with dystopias lurking underground (Leontidou 2020).

The present decade is an appropriate epoch to observe the interpenetration of dystopias and eutopias in Mediterranean cities, as well as other contradictions in geographical imaginations of the crisis. In fact, the construction of dystopic "soft cities" by the Western/Northern power elites imposing memoranda and austerity clashes with the eutopic "soft city" of solidarity movements. These filled the Mediterranean urban piazzas with optimism in the early 2010s, emancipating the people from servitude (Robins 2019) and from fear (Castells 2012). Recent mobilizations, with Athens as the epicenter, differed from those for "the right to the city" of the twentieth century (Leontidou 2010; Harvey 2012; Vagionis 2019). Uprisings culminated in the 2011 movement of the indignant piazzas in Syntagma (Kaika and Karaliotas 2016; Leontidou 2012b, 2013, 2014); these went on in 2013 after the closure of the Hellenic TV (Leontidou 2014); and they soon caught the attention of progressive European citizens. Cosmopolitan activists, intellectuals, artists, as well as the sizeable Greek diaspora of the brain drain, have acted in solidarity (Portaliou 2019), actually countering the Orientalism of the power elites by constructing an alternative gaze about the cultural identity of the crisis-stricken "soft city" (Robins 2019). Images of Hellas as the "cradle of European civilization" have been

sustained globally for too long to be annihilated now in the context of the debt crisis. The beginning of a healing process can be discerned in the piazzas after 2011, through international solidarity (Leontidou 2012b, 2014; Portaliou 2019).

Can solidarity reverse the dystopia in the longer term? This is difficult to say, because it must reach and affect the "hard cities." What facilitates this project is what Raban (1974) did not anticipate: the interference of the Internet in the creation of "soft cities." The advent of digital democracies and the "digitization" of politics, work, and culture has largely facilitated the domino effect of social movements and networking in the Mediterranean after 2011 (Castells 2012; Leontidou 2015). It now facilitates the instant contestation of dystopic "soft cities" constructed by dominant classes of activists, intellectuals and the grassroots, online, and on the streets and piazzas. Crowds and collectivities can often undermine EU/state hegemony in post-colonial – or crypto-colonial – Europe.

We have argued that the "soft cities" of European power elites affect "hard cities" in concrete ways. The opposite is also true: the Mediterranean "hard city" constantly challenges or even reverses mainstream imagery and wisdom, as recorded in recognized urban development models. Southern cities have been marginalized from mainstream (mainly Anglo-American) geography and urban theory, as we have already discussed in the Introduction. In other words, even in urban research, cities of the South reverse the experiences of the Northern "hard cities" of statistics and development models. Positivist scholars tend to define away Mediterranean "particularities" and ignore them in their reasoning, treating them as exceptions in Urban Geography textbooks, thus creating a huge gap in urban theory (Leontidou 1990, 1993). This kind of exceptionalism and stereotyping is preferable to stigmatization, of course. But the danger is always there, because of the subversive function of Southern cities in overturning received wisdom about capitalist urban development (Leontidou 1993). Athens, as analyzed above, condenses the Mediterranean experience, with which the cities of the North contrast sharply in important ways.

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Chapter 11
The Geography of Retailing in France: More than 40 Years of Researches

Nathalie Lemarchand and Louis Dupont

Abstract The aim of the chapter is to show the development of the geography of retailing in France since 1975 until today, that is, since the creation of the geography's Commission of retailing by Jacqueline Beaujeu-Garnier within the French National Committee of Geography. Almost a non-entity in Vidalian-inspired geography, of the emergence of retail and trade as a subject study in academia, must first be presented in connection with the socio-economic transformations of French society. Indeed, France was becoming an urban society, and commerce was its main factor: the eyes could not miss it. Second, we will follow the transformation of the geography of retailing considering the cultural turn, which has encouraged an opening to new subjects, new issues, and allowing new researches in many subfields of geography. The study of retail in geography benefited from the cultural turn, in contributing to overcome a recurring opposition between culture and retail in geographical approaches. This situation has a singular ring in France, where sociologists like Bourdieu and Baudrillard have written a sociology of consumption that denounces the commercialization of culture through consumption. Finally, since the beginning of the twenty-first century, we will try to show that the geography of retailing in France has managed to treat new subjects linking commerce, culture, and society, and is today expanding into the geography of retailing and consumption.

Keywords Geography of retail · France · Cultural turn · Geography of consumption

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Part of this text is the translation of an article written in French, by Lemarchand (2011). The authors translated all the original French citations.

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11.1   The Emergence of the Geography of Retailing

In social sciences, new subjects and themes stem from the transformation of our societies, and from the observation and their interpretations by researchers. They try to describe, then explain or understand better these new phenomena. The geography of retailing is no exception. In France, the urban transformations of the 1960s, the birth of large-scale retailers with new companies such as CARREFOUR and AUCHAN, disrupted the commercial structure of the cities. These changes took place at the same time that French geography was modernizing its corpus, questioning the dominant classic Vidalian geography, which had then reached a point of no retour, if one considers the number of critics and dissents. With France becoming an urban country, economic geography, as well as social geography, increasingly focuses on the city, and on urban regions and networks. Geographers adopted new approaches and methods, influenced in part by Anglo-American geography, when it was not stemming out directly from the "local" social and political criticisms (which, by the way, had an impact on the former). Vidalian notions of "natural environment" and *genre de vie*,[1] in which the nearest natural potential is decisive to people's actions, were rejected in favor of a more social and economic perspective, and explanation. The geography of retailing asserts itself in this very context.

As Alain J. M. Bernard (2003, p. 686) accurately pointed out, "retail geographers" started early to "organize themselves in networks, interdisciplinary and transnational, according to various affinities". In the middle of the 1970s, an official network of researchers interested in commerce and retailing emerged in France; they created an official national association that enabled them to discuss and exchange on trade issues with geographers and social scientists around the World. Originally seen as a division of economic or urban geography, its main promoters, Professors Jacqueline Beaujeu-Garnier and Alain Metton, worked for its recognition as a specific field of study inside scientific authorities, such as the French National Geographical Committee (CNFG) and the CNRS (National Council for Scientific Research), but also at the International Geographical Union (IGU). We can refer to this period as a consolidation period; the *who's* and *what's*, without surprise, can be traced backed or linked to two orbits: urban geography and economic geography.

11.1.1   Retail in French Geographers Before the 1970s: Departing from Vidalian Paradigm

Without ignoring commerce, Vidal de la Blache never treated it more than one activity among others occurring in the city. With its regional orientation, Vidalian geography had problems grasping the growing importance of the city in France. Instead

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[1] Often used in its French version in English text, *genre de vie* is not a *live style*, although the latter is part of the former. A *genre de vie* can be said to be *a situated way of living*.

of embracing it in full, it came to focus on the various factors of the attractiveness of the city, rather than the city itself, as a subject study. In other words, the *historicist and naturalist* Vidalian geography could not miss the fact that most regions in France organized themselves around an urban county seat. But Vidalian geographers missed the fact that this entity was not only a sum of activities, but a particular dense place that reveals the very regional dynamic (or life) they were interested in. The picture and scene of the urban market here dominates, and best illustrates this fact:

> For example, the famous *Tableau de la géographie de la France* de Vidal de la Blache [1911], which includes few developments on the cities, only evokes the "trade" between regions or between countries. With Jean Brunhes [1925], one is interested in market life, for example in his treatise on human geography, but the approach remains oriented towards the study of transport, communications, and fairs as animating the rural countries. At the same time, André Allix [1923] made a thorough study of the fairs. However, the commercial fact remains essentially considered as generator of urbanization; the economic activity of exchange seems to create wealth, to be a source of urban prosperity and social animation (Lemarchand et al. 2014, p. 13)

In *Géographie des villes,* published by P. Deffontaines in the collection *Géographie Humaine,* P. Lavedan (1936) dedicates a sub-part of his chapter entitled *"Les Quartiers"* (neighborhoods), to the commercial activity. The subtitle is *Quartiers de commerce*, in which he takes note of the anteriority and diversity of the commerce by referring to the toponymy of these districts, which relates to various companies' name. He adds: Cities are the work of merchants; they exist only by them' before adding "'the topographic location of this district is one of the oldest in history" (1936, p. 135). However, he remains silent on retail itself, or on the markets, shops, or department stores that had been taking foot in urban spaces for more 80 years.[2] Otherwise, in the posthumous J. Bruhnes' *Géographie Humaine*, published originally in 1942 and re-edited by Mariel Jean-Bruhnes-Delamarre in 1956, we find references to markets as places clearly delimited as topographic zones (plain-mountain in the Vosges for example). Bruhnes writes that these markets had become *active small industrial centers* during the development of the industrial activity. Commerce marks here the value and the history of a small town, but the focus is on transportation, that is, the ways of communication that allow the goods to reach the central urban markets.

Overall, we can say the geography of commerce and retailing emerge from a period still marked by a regional geography approach, which focus on the physical geography in order to present the specificities of the *milieu*, before looking at human and social development resulting from the interaction with this *milieu*. The development of cities in all regions of Frances shook the hegemonic position of the Vidalian

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[2] *Le Bon Marché,* the first department store, opens in 1852. Aristide Boucicaut, the owner, inaugurated this new concept where consumers were free to go in and out without buying and returning goods. He also launched many other innovations, like advertisements for new products and sales. *Le Bon Marché* inspired many retailers around the world. In Paris, *Le Bon Marché* as *Le Printemps* or les *Galeries Lafayettes* always are nowadays, famous department stores for consumption but also for retailtainment.

paradigm. Cities became a preoccupation, but geographers tried for a while to save this paradigm, in studying cities through its various dimensions. Retail trade was one of them, along with transportation and housing. However, gradually, the regional approach will give way to research on cities, as such, and on the networks they create; retailing and services was one of the ways to evaluate and grade an agglomeration in the urban hierarchy.[3] Along the center-periphery schema of the commercial structure, urban networks replaced the regional approach.

11.1.2   Geography of Retailing: A Shared Interest

The geography of retailing in France emerged distinctly as a branch of human geography in the mid-1960s as a convergence between two major currents. On one hand, the Anglo-American economic geography, which develops the spatial modelization, and whose main reference is Brian Berry; on the other, what we can call "functional urban geography", whose main reference in France is Jacqueline Beaujeu-Garnier. The holistic approach adopted by this "functional urban geography" remains in practice closer to the French School of Geography; for example, it came to be without being aware of the ecological paradigm of the Chicago School. The latter introduces statistical analysis in geography and claims the multiplicity of its methodologies. Instead, functional research on the commercial apparatus will be associated with a *geography of action*, also claimed by Jacqueline Beaujeu-Garnier. It evolved in France as a geography that works alongside public actors, developers, or trade professionals.

The implementation of a planning policy in the 1950s and 1960s in France led many geographers to collaborate on studies in this field. Through their methods and tools, they bring useful information to policy makers and developers. However, the participation of geographers in this new field has led to a great debate on the aims of the discipline, and its "applied" dimension (a questioning that has not stopped).

Jacqueline Beaujeu-Garnier took part in this debate by insisting on the importance she attaches to the practical dimension of geography, which focuses and affects people's living space. In a 1975 article, entitled "Geographers at the service of action", she highlights the difficulties of French geographers to be in "action", and makes a panorama of the commitment or intervention of geographers both in the USSR and in the United States, but also in Europe and elsewhere. She concludes: "there are no two geographies: one for scientists and teachers and one for planners and businessmen. Any good geographical study is likely to provide

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[3] For example, M. Rochefort, State doctorate on the Alsace, 1958, and Yves Babonaux State doctorate on the *Loire moyenne*, 1966. The French academic system used to have a higher doctorate, called "State doctorate" (doctorat d'État), but it was superseded by the habilitation (Habilitation à diriger des recherches, "accreditation to supervise research", abbreviated HDR) in 1984. Up to 1974, State doctorate encompassed two theses, one in regional geography and one in physical geography.

information, so to be usable" (Beaujeu-Garnier 1975, p. 295). The geography of the retailing went along with this movement by the nature of its subject, and the influence of Beaujeu-Garnier boosted its interest among geographers. She stated: "[…] stimulated partly under the influence of Anglo-Saxon researches, partly under the impetus of the commission of the Ministry of Commerce, which for a few years, incited researches on this topic in France, and also spurred by the concerns of professionals [...], a new trend is emerging among French researchers" (Beaujeu-Garnier and Delobez 1977, p. 7). As a result, the geography of retailing became to a large extent part of the establishment of operational practices, that of spatial planning, and then of retail urban planning (Desse 2001; Merenne-Schoumaker 1995).

This convergence is not fortuitous if one considers the transformations experienced by the commercial apparatus, and its consequences on the urban dynamics. The analyses carried out by the geographers have shown the undeniable role taken by the spatial organization in the development of commercial enterprises, but also the impact of the retail trade on the organization of the territory. So, even though French geographers nowadays conduct researches in different spatial configurations, from the city to the "countryside", from the peril-urban to rural settings, they originally focused on the place occupied by the retail and commerce in the cities.

In *Traité de Géographie urbaine* published in 1963, J. Beaujeu-Garnier and G. Chabot give a definition of the city: "[...] Ratzel [...] was interested by commerce [...]. And this is a point of view we took from H. Wagner for whom cities are "the points of concentration of human commerce" (p. 29). Pages later, they dedicate a chapter on the "commercial function" in which they recall: "the commercial function often appears as the fundamental function. [...] And some authors have included this function in the very definition of the city, as it seemed inherent in urban life" (p. 121). Otherwise, in *Géographie du Commerce*, Beaujeu-Garnier and Delobez (1977) follow a French tradition by providing a scientific synthesis, that is, attempting to visit all approaches and issues related to the subject, and establishing a typology at an international scale. They begin by proposing an extended definition of commerce, and then deal with most commerce-related issues, from the trading function to the retail apparatus. They identify "commercial systems", theories and hierarchies as well as commercial structures as objects of study, in parts or in chapters of the book. Although omnipresent, they overlook the relationship between commerce and the city, except sometimes inside a paragraph. Beaujeu-Garnier more clearly makes the link between the two in his book *Géographie Urbaine*, another synthesis published in 1980. It is the object of a chapter in the section devoted to the urban functions, as part of the spatial organization of the urban space. The relationship between city and commerce is also studied at the scale of the region. Commerce is then a kind of vector of this relationship, whether it is through money flows or by the movements of customers or traders. In *Géographie du Commerce*, Beaujeu-Garnier and Delobez use the region to emphasize the city-commerce relationship. Commerce thus becomes an object of study demonstrating the validity of the links between a city and its hinterland.

Like their precursors, geographers working on retailing often combine this field of specialization with that of the urban space. The theses and published works are

witnesses to this. In a book entitled: *Le commerce urbain français*, Metton (1984) points out to the importance of this function in cities: "The commercial vocation of our city centers which has often overshadowed the other functions of religious or administrative command is inherited from a prestigious but distant past" (p. 30). The context of modernization of the French commercial apparatus consolidates this obvious relationship. In the introduction of the French urban commerce, Metton (1984, p. 13) indicates: "the book is devoted to this great revolution of the distribution [new commercial logics]. The emphasis is on the urban retail". Further, it focuses on the almost organic historical relationship between commerce and the city. Said Metton (1984, p.14) "our attention to commerce is closely linked to urban mechanisms, because throughout history, as the historian H. Pirenne has already shown for the cities of the Middle Ages, the city is the 'daughter of the commerce', it gives it its fame, its image, its power of command on the neighboring spaces".

The value of the relationship between city and commerce here differs from Berry's appreciation, although both agree on the strength of this relationship. For some, in the tradition of classical French geography, it is the conviction of the permanence of spatial structures that this relationship demonstrates. Because, as Roncayolo (1990, p. 20) writes "territorialized constructions are above all time-consolidated". For others, it is on the establishment of economic places formed in cities and around commerce that this link exists. Although French geographers, and among them those who work on trade, have not ignored the economic dimension of cities, some have integrated it into their work in the Vidalian tradition (Robic 2003, p. 126). Finally, geographers working on the geography of retailing have not ignored the ecologist paradigm, demonstrating the desire to collect the greatest diversity of approaches to understand better the relationship between city and commerce. Thus, Beaujeu-Garnier and Delobez indicate it when they say "[i]n the matter of elementary general theory of the urban space, it is obvious that commerce is in a central position as Burgess defines it. Often linked, if not to birth, at least to the first developments of the city, it belongs, so to speak, to his skeleton" (1977, p. 201). In the same way, Metton (1984, p. 22) recalls the relationship of the city and commerce by employing a vocabulary inspired by urban ecology: "[...] the trade of all times [...], is in fact only the result of a spontaneous and permanent adaptation of small shops having had the remarkable faculty to exploit the modifications of the French consumption in permanent evolution" (underlined by us). Without pursuing the naturalistic approach, this perception of retailing having certain adaptability, even an intuition of the changes in a moving city, still remains solidly present in the French urban geography. M. Bonneville and V. Bourdin (1998, p. 13) point out: "at the same time, spatial, economic, social and political reality, the city builds itself, deconstructs, densifies, dilutes, and diversifies. If retailing is in its image, he also has a great ability to adapt to new situations, new urban lifestyles, and even to anticipate". The upheavals, which are going to know cities with the massive arrival of hypermarkets, strengthen the demonstration of the relation between city and retailing. As precursors of peripheral economic movements, hypermarkets induce,

on one hand, changes in ways of consuming, and have contributed to the acceleration of urban transformations, on the other, by the social changes of consumption which are associated with this day with them. The construction of business parks dedicated to the retail sector in the suburbs demonstrates the capacity now reached by the latter to become on this scale an autonomous pole of attraction. Thus, Bondue (2000, p. 100) notes that "[r]etailing, by its very high reactivity to changes, appears as a relevant revelator of the mutations and paradoxes that affect the dynamics of the territories". The development of cities, their morphological transformations resulting from the combined action of town planning and economic interests, lead to "the fear [...] of a new geography of retailing dictated by the use of the automobile (shopping centers)" (Roncayolo 1985, p. 109). Studies on the consequences of their location in the suburbs will adopt a morphological or urbanistic approach, leaving to economists the analysis of economic consequences, and to sociologists the changes in consumption practices (Rochefort 1995).

After the modernization of the French retailing apparatus, it is the turn of the city center to come across the urban and commercial transformations. The attempts of the city center to regain urban and economic vitality will go along again by the participation of the retailing. Once again, the geographers working on the city and those working on the retailing intersect although the latter are, by definition, more attentive to this interaction. Beaujeu-Garnier and Delobez (1977, p. 227) write: "all these operations are more intended, of course, for the city in general than specifically for retailing, but this one benefits because of the symbiosis that binds them". Elsewhere, Metton (1984, p. 61) notes about pedestrian zones in cities: "this is a new set of data the geography of retailing, just as it was the case twenty years ago for the peripheral retailing. This is a new datum of urban geography since at present, the pedestrian zone has become a usual element of the city centers, and it is often accompanied by a reshaping of the landscape, the activity, transport flows and the use of city centers". The dynamic quality of urban commerce is underscored by the retailing animation, and the rhythms that drive those to the city.

Thus, the place of retail in the city, by its economic, social, and spatial consequences has attracted the interest of many researchers in social sciences. Its value as an indicator of the structuration of cities is underlined by geographers, such as Metton (1984), Soumagne (1996), Guermond and Lemarchand (1997). Bondue (2000, p. 99) states: "while retailing had melted slowly and spontaneously into the dynamics of cities and territories, the proliferation of hypermarkets [...] [has] accelerated the production of merchant aggregates of all types, most often on the periphery of agglomerations [...]". The pattern of city-territory replaces one of traditional cities. This city-territory is consisted of a patchwork of multiple centralities based on the structuring of the retailing offer.

This work, as well as the topics discussed and the approaches developed, in mirror, reflect the state of a society. The organization of commerce accompanies, and perhaps anticipates, the spatial and social changes that occur there. Thus, the movement of commerce on the periphery is an inseparable movement from that of the

populations, and the emergence of new peripheral polarities, combining the economic and cultural dimensions. This spatial movement did not occur by itself, it is also an aspect of the social transformations leading developed countries to become consumer societies. To understand the success of new forms of retail, we must consider how the dynamics of these four variables combine: retailing, economic, urban, and social. Indeed, department stores as well as hypermarkets and today new stores, whether organic stores, online stores or "concept store", find their success because they emerge in a context of transformations, economic and technological, social and urban. In the nineteenth century, the department stores were born while the economy relies on industry; the city grew with the suburbs and grows by the arrival of new populations forming the troops of workers and employees in new businesses. In the middle of the twentieth century, mass-market retailers, symbolized by the hypermarket, were born as the economy became tertiary, the city developing with new neighborhoods and a peril-urban crown where young households newly urbanized settled. Today still new transformations are affirming in two directions: on the one hand, the city continues to expand, nibbling the agricultural and natural lands in favor of new constructions, and on the other hand, by the requalification of many districts it rebuilds on itself. The economy relies more and more on the digital, which largely participates in urban changes with the smart city. The socio-cultural and socio-professional diversities burst classical typologies in favor of fuzzy categories, without, however, eliminating social and economic exclusion (Fig. 11.1).

The transformation of a production society into a consumer society indeed has led to significant questions in researches in the social sciences and humanities. Geographers specializing in the geography of the retail had to be attentive to this transformation, which led to reconsider the places of commerce, other than mere places of distribution for industrial production. Anglo-American geography will question its practices, and its field of study from new questions and new themes and issues to understand the relationship between retail and consumption. The relationship between culture and commerce, and thus the conception of culture, is at the center of this opening to, and examination of, the geography of consumption.

Fig. 11.1 Combined Mutations at the hearth of societal transformation

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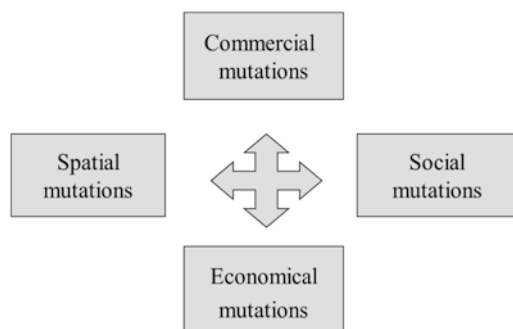
11.2 The Geography of Retailing and the *Cultural Turn*: From Retail to Consumption[4]

One of the results of the *cultural turn* of the social sciences is the blurring of boundaries between disciplines; another is the introduction of new subjects and themes. "Studies" of all sort helped move away from the rigidity of normative academic domains, or disciplines, a term that in a way sums it up. Those changes went along with a new vocabulary, new conceptual apparatus, and even new methodologies. In geography, the *cultural turn* results mainly from a reaction by different geographies and geographers to the positivist epistemology behind the quantitative methods and spatial analysis, as well as the radicalism at the heart of the theoretical geography. Turning its back to a more traditional Sauerian cultural geography, a *New Cultural Geography* emerged in the late seventies in focusing on bringing back "human beings" (as subject, with a free will, its imagination, in short, its unpredictability) to the heart of geographical equation, as proposed in the reference book by Ley and Samuels (1978), *Humanistic Geography*. The convergence between part of this humanistic geography and the postmodern critique of science gave substance to the *cultural turn* in geography. Despite its limits and critics, the *cultural turn* has undeniably questioned the scientific practices and the "intellectual factory" of geography.

In France, the *cultural turn* did not quite have the same configuration and did not have, at least originally, the same impact. For one, while in the United States radical geography, or for that matter any realist (political) geographies, were very critical of the quantitative method and the so-called social sciences, they cooperate in France under a *New Geography* flag. United against the Vidalian hegemony and in favor of a real scientific geography, most oriented to the left, and to the critic of capitalism as the main force behind the production of space, and of spatial disparities. Very critic, but more academic than engaged as the radical geography *à la* Bunge was. In this context, the *Humanistic Geography* did not have the same impact for two reasons. The first is the presence of the *New Geography*; the second was the existence of *la géographie humaine*, associated with the Vidalian geography, whose foundations were being assailed. Paul Claval took it from there in opening up French geography to "la géographie culturelle" en 1992, in creating a new national journal: *Géographie et Cultures*.[5] He could not talk of a "new cultural geography", since

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[4] The "cultural turn" of social sciences has been extensively discussed and explained elsewhere. Suffice here to say that to celebrate its 20th anniversary, *Géographie et Cultures* organized a 4-Day conferences in 2012, whose papers and presentations were published in its pages (93–94), untitled "Le tourmentculturel", a play on words in French with "tournant (turn) and tourment (torment)"; see F. Barthe (Ed.) 2014. We here focus mainly on how it manifests itself in France (Dupont 1999), and, more importantly, how it has affected the geography of retailing. That latter part has already been discussed in several articles and conference by Lemarchand (2008, 2009).

[5] *Geographie et Cultures* remain the main references and witnesses to the cultural turn in geography. It opens its pages to new themes and subjects, such as culture and commerce; it has left open the culture-society debate and has moved more toward a social and cultural geography of its own (Dupont 2014).

there was no cultural geography as such in France. What he was interested in was the *cultural turn*, with his postmodern dimension, and how it could affect geography. This project, so to speak, will find itself at the heart of a controversy that will last almost 20 years. Indeed, the *New Geography* would see the emergence of a *géographie culturelle* as a way backward, as a way to resurrect some neo-Vidalian geography. There were some supports for this claim, as many subjects and approaches closed to the Vidalian geography appeared under a new umbrella: religion, regional identity, etc. At the same time, this critic discarded altogether the postmodernist critic associated with the *cultural turn* Paul Claval had in mind. Theoretically speaking, the debate will be on the question of the primacy, the social or the cultural?[6] That explains why there has not been a convergence between the two, as it is mostly accepted today in what we can call "social and cultural geography". Nevertheless, the cultural turn did affect French geography, in general, but also, different specialties, such as the geography of retailing.

11.2.1   Emergence of the Geography of Consumption

The geography of consumption owes much to the sociology of consumption. Indeed, French sociologists who first questioned the social and political purpose of consumption (Baudrillard 1968, 1986). For other sociologists, such as Maffesoli and Aubert, but also for philosophers like Lyotard and Balandier, the "consumption practice" is a fundamental principle of society, established beyond the classical interpretative schema of a modern society. Whether we name it postmodern (Lyotard 1979; Maffesoli 1988, 1998), *hypermodern* (Lipovetsky 2006; Lipovetsky and Charles 2004) or *surmoderne* (Balandier 1994), it is not any more about a conventional or distinctive consumption, but about a consumption of identity assertion. It does not exclude a social dimension related to the economic and professional variables, but it no longer makes the essential reference. For geography, unsurprisingly, this observation leads to consider places of retailing as places of expression for these new social forms affirmed in post-modern societies.

However, the emblematic places of consumption such as shops or shopping malls have been little studied by the French consumption analysts, and it was firstly the Anglo-Saxon researchers who made it (Jackson and Thrift 1995). In France, René Péron, a sociologist specializing in the city and commercial town planning, will publish in 1993, *La fin des vitrines. Des temples de la consommation aux usines à vendre*, while the anthropologist Michelle de la Pradelle will publish in 1996, *Les Vendredis de Carpentras. Faire son marché en Provence ou ailleurs*. These two books were forerunners of the analysis of these new objects of study that have become places of commerce.

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[6] See *L'Espace géographique*, "Débat: le post modernisme en géographie", 2004/1: https://www.cairn.info/revue-espace-geographique-2004-1-page-6.htm

Theories and thoughts of the culture and consumption interface were initially French (Baudrillard 1986; Bourdieu 1979). In geography, the first analyses combining retailing and culture are the fact of the cultural geography Anglo-American (Crang 1998; Miles 1998), while certain circles of the French cultural geography felt some difficulty in associating culture and consumption. For the latter, consumption was more easily opposed to authenticity. This reluctance, still frequent, which Baudrillard explained well in its book on the consumer society (1986), leans on two postulates. The first is that culture is the privileged and singular expression of a renewed or traditional society in a long-term process; the second is that consumption is the most accomplished form of immediacy, what Baudrillard calls the current events. Connect culture and consumption means then destroying the culture. However, by going beyond this tension, the study of cultural factors in retail spaces enriches the analysis of what the places of retailing in our societies mean in spatial, social, and cultural terms. The works of Anglo-American authors demonstrate the emergence and the scope of possible topics. Among these, the reflection on the nature of these places (private space of public use, or public space more and more selective) refers to an overall questioning on the commodification of the society. Others, for example, deal with retail businesses, ethnic commerce, or the landscapes produced by retailing.

In the French geography of retailing, the interest for the consumer society is rather a continuation of the research undertaken by geographers on the social link in the retail space (Metton and Lemarchand 1997). Retail trade is conceived as a place of sociability between the various actors of the merchant exchange. This link asserts itself because, in theory, there is a perception of the commercial territory that leads to it today in the sphere of identity. Trade places and territories therefore participate in a community's identification. Belonging to these, whether real or symbolic, involves the display of a number of signs. These works have found an echo in the epistemological questioning undertaken by the cultural geography associated with the cultural turn. The showcase that offers the journal *Géographie et Cultures* shows it well, with the publication of articles like that of Philippe Crang, "La géographie de la culture de consommation" (2001), or that of Dupont and Lemarchand "Culture et commerce". Du système national américain au système mondial: le cas de Mc Donald" (1999). There are also issues of the journal in the same spirit, such as "Économie et culture: nouveaux enjeux géographiques" (2004) or "Commerce et culture: analyse géographique" (2011). This is only possible by going beyond categories, which, by posing them as watertight, are incapable of accounting for current social transformations.

Today with the world-system, consumption and its identity meanings are taking a step further, emphasizing more strongly the relationship between the two. According to the definition and the general application of the concept of the world-system, one realizes that it is a system used to signify and understand economic flows, measurable exchanges in financial terms. It also applies to the cultural sphere, because it is inseparable from the globalization. Indeed, for selling in the world today, someone must first associate its product with a quality or a character. "Culture is both the result and the prerequisite for the reproduction of the society. [...] Culture

is the link between past and future, the unconscious continuity of the society" (Lipietz 2000, p. 279). It is on this cultural base that consumption relies to flourish in the commercial space.

11.2.2 The Geography of Consumption: Between Commerce and Culture

Today, studies go beyond distribution and include consumption. It questions the retail activity by the fact that it is no longer just the consumption of products, but also a form of consumption of the places of retails itself that takes place. "Experience of consumption", which all brands are promoting puts the emphasis on the staging of the product in the commercial space. In this perspective, analysis associates consumption with a new chain that is no longer part of the production of the product, unless it is itself used to favor the experience, but goes from the place of purchase to the final consumption. The marketing aims the production of an ambience, of an atmosphere in the environment of a product to associate it with other ones recreating its universe. The retail place is indeed indisputably linked to the consumer society; it is one of the "high places" because it is the intermediary between production and consumption. But even more, it becomes an object of consumption. It puts himself on the stage and uses cultural markers that makes it enter the sphere of consumption.

Let see two case studies that illustrate new subjects and approaches in the geography of consumption. The first one is Montréal's Bonsecours Market, conceived as a high place of culture and retailing (Lemarchand 2012); the second is the study of commercial discourse, constructed in the interplay of commerce and culture, or to be more precise, in the blurring of their assumed distinction (Dupont 2011).

11.2.2.1 The Bonsecours Market: A Real-Fictional Place and a Theatrical Stage for Consumption[7]

Bonsecours Market's building was built between 1844 and 1852. It symbolizes important episodes in the history of Montreal, and even of Canada since Montreal was then the most important city. Temporarily hosting the Parliament of United-Canada, then the Montreal City Hall, it included a concert hall, and an auditorium for public meetings. It also served as a reception room. It was in a much more constant way a public food market, the largest in Montreal, inaugurated in January 1847 and operated until 1959. Later, it was forgotten and abandoned as the port of Montreal moved further east to accommodate new and bigger ships. It was then reinvented as a place, before becoming again a place of commerce, a high place of

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[7] Lemarchand 2012.

Fig. 11.2   Bonsecours Market, Montreal, Canada. (Lemarchand 2007)

commerce, where consumption of local artistic and craft product goes along with the experience of a place (Fig. 11.2).

The revalorization of the Marché Bonsecours as a building emphasizes the historical dimension that it represents by its uses and its design and affirms the continuity of its commercial function in the description of the shops it now houses. In the narrative, it is recalled that it was the "symbol of a booming Montreal; that it was for more than a century the main meeting place of the people of the city and the agricultural producers". It adds that "its recent restoration, with cafe-terraces, shops and exhibitions", has given back to the place yesteryear's animation. On the website of the Marché Bonsecours, in the section dedicated to shops, the place is associated at once with modernity and tradition: Bonsecours Market is "one of the new symbols of the modernity of Old Montreal". This is concretely manifested by the *very contemporary interior design* of the building, but also in the products that are sold [in the boutiques], original and contemporary works reflecting the creativity of Quebecers, who, it is mentioned, *are not frozen in the past*. The narrative goes on in associating modernity with urban culture and diversity, whether it is called cosmopolitanism vs multiculturalism. Once again, the Bonsecours Market illustrates these urban qualities, in displaying a variety of products that express a *crossbreeding of cultures*, a well-known expression generally used to describe the life and setting of modern world-class city.

This narrative build around modernity and tradition has today become common to describe different places, be it a city or a commercial place such as the Bonsecours Market. It amounts to what we can call a commercial discourse, which positions in a socio-cultural setting a product or a place. Marketing does not invent that theatrical place, it comes after to give form to it, and if it works, it is because the values put forward, and the way they are associated, already make sense in the social system. Here, the narrative is constructed on the blurring of two categories that are, in a "pre-postmodern setting", so to say, opposing categories. So, to the Bonsecours Market, as elsewhere, we notice how the narrative of a place, and a commercial discourse, participate in the valuation of a place, and in its identification. This concept is important: identification is no identity; it is something we associate our self with, to the contrary of an identity, which appears to be something grounded, given, authentic. It is horizontal, which means that it makes sense in association with other meaningful things, supported by other narratives and discourses. While identity is vertical, rooted in a place and in history, with strict boundaries, although some would argue that in a postmodern context, identity is also a discourse.

In the case of the Marché Bonsecours, tradition is valued by the patrimonial quality of the place, since it is presented as *a jewel of Quebec heritage*. This means that there are artistic cultures associated with the three historical identities of the country, which can be assumed to nourish contemporary creativity. By mentioning three categories of objects of art differentiated by their identity, we therefore mean that there is a distinct artistic tradition for each elaborated in the game of continuity and breaks specific to each story. Tradition is also present through the catering, food products and cooking again referring to a culinary tradition combining territory and culture, namely a *terroir*, whose symbolic rhymes with sophistication. In the Bonsecours Market, the *Cabaret du Roy* is thus a thematic restaurant, where the decor and service refer to an inn of the eighteenth century.

11.2.2.2 Commercial Discourses, as Social and Cultural Construction[8]

Our study deals with the commercial discourses that go along with products and allow them to be sold on the market with added cultural and social values. Our focus was on different food products. Commercial discourses should not be confused with marketing: marketing is downstream; the social and cultural dimensions of the commercial discourses are upstream. In other words, we pose that marketing plays with images and signs that are already significant in the social system. It encapsulates but does not create. This research is only possible if one is able to look beyond the traditional opposition between culture and consumption, or commerce. It is at the junction of a geography of commerce or consumption, and a social and cultural geography.

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[8] Dupont 2011.

Five food discourses were identified and analyzed within the French social and cultural space. No meaning was clearly associated with them before hand, they came out from discussions among the survey team; 171 products were studied in different grocery stores in and around Paris. They are: health (38 products), bio/environment (51), exoticism (38), technology (30), and tradition (32) discourses. We pose that most food products are sold on the market with a cultural-added value, which can be found in what we call the "discursive wrapping". Images, colors, words, and texts were taken and analyzed from the real wrapping, as well as from the publicity and website of the products or stores, if it existed.

The emblematic case of this type of study is without a doubt the *chips* "à l'ancienne" (old fashioned chips; or *crisps* in Great Britain), which were invented (constructed) in France 20 years ago. It has since been copied and marketed in many countries, where it is called and associated with tradition, the good old days, farms and the country side, craft, or yet authentic, hand-made, etc. Old-fashioned chips are in many ways a pure cultural product, since it never existed. Chips come from the United State in the nineteenth century, where Herman Lay (hence the brand name associated with chips worldwide: LAY'S) invented a machine capable to slice and cook potatoes into chips. Like Corn Flakes, it is a pure product of the American food processing. Founded in 1938, LAY'S was bought by PepsiCo in 1965: *chips* and *soft drinks*, we cannot be farther from the French culinary tradition. In a sense, if you buy and eat chips à *l'ancienne*, what you eat is not chips, but culture. To say it otherwise, you bite into culture as much as in a chip, you distinct yourself in offering them to your friends, who probably share the same values; after all, everybody knows that old-fashioned authentic and traditional chips are better than industrial chips!

What our study shows is that all discourses are embedded in cultural values, while appealing to a sense of distinction within a social context. Products in each category express a social and cultural positioning; in other words, they go along with a discourse, whose function is to create a sense of identification. It cuts across different social and cultural categorizations. For example, the "health discourse" is clearly oriented toward the body, its well-being and its esthetics; the narrative talks mostly to woman, or at least to values socially attributed to woman. On the other hand, the "technology discourse" talks about performance and strength, and thus remains heavily marked by so-called masculine values. Moreover, this process goes along, in section of the stores or in specific places, such as in the case of organic grocery stores, with a special setting, a spatial configuration that adds to the sense of belonging. The types of grocery, local or regional, their location, in Paris proper or its surrounding, also participates to the narrative, as it can be correlated to the social composition of a neighborhood. In this case, our findings are not as conclusive, since we have to take into consideration the commercial dimensions, such as the production and the distribution of products by chain stores or producers.

11.2.3   *After the Cultural Turn: New Subjects and New Trends*

The cultural turn has favored the transformation of the retail geography into a geography of commerce and consumption. What remains of this period is an opening to interdisciplinary researches, and the emergence of new paradigms; it helps raising new questions on the social and cultural dimensions of the merchant space. In this section, our intent is to show how the research landscape looks like in this post cultural turn era.

In this perspective, traditional dimensions of commerce remain of interest, but in considering the cultural dimensions and the social context. In 2008, the CNFG's *Commission on Geography of Retailing* published the *Dictionnaire du commerce et de l'aménagement,*[9] which illustrates the ongoing renewal of the field, with entries such as "Architecture and Retailing" (Soumagne 2008), "Homosexuality and Retailing" (Blidon 2008), but also new concepts such as "universe of supply" (Lestrade 2008), "retailtainment", etc., while globalization, cultural consumptions, and sustainable development inspire new researches. Through them, new questions arise. How are new consumption patterns, but also the new capitalist rules of urban planning, changing commercial spaces and their frequentation? How do the commercial structures evolve under the effect of the new ways of consuming, like veganism or the second-hand commodities? Two recent thesis try to answer those questions (Coumau 2016; Rassat 2020).

Veganism has become more visible today as a social movement, where consumption patterns and social activism intersect. Beyond the question of consumption of meat, arises indeed the co-presence or exclusion of what one can call, "consumer tribes", in mixed or specific places within the city. In here, merchant places become space of militant expression, transforming "deferred development zones" into "zones to be defended",[10] where opponents to a model of society considered capitalist and normative gather. Standardized patterns of consumption are excluded in favor of other forms of exchanges: barter, free-price products, self-production, and self-consumption, etc.). Second-hand product has become important, as such as a commercial circuit, but also by its multiform discourse that includes references to ecology, the socio-cultural dimension of consumption, not to mention the "deconsumerism" along with up-beat fashion that plays on vintage codes. There exist now a diversity of second-hand shops appealing, by their staging and their locations, to different social and cultural expectations and identifications by specific spheres of consumers.

Traditional topics such as locations remain are revisited with the emergence of e-commerce or *drives,*[11] and are re-examined in relation to the prism of new

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[9] See Desse et al. 2008.

[10] The French expression "zone à défendre (a zone to defend)", ZAD, is a diversion from a French technical term in urban planning, "zone d'aménagement différé" (a delayed-planning zone).

[11] In France, "drive" is the term originally used for *drive-in,* in fast food brands. In recent years, it has been used to designate the withdrawal points offered by food retail chains. In this case, the

consumer practices (Pernot 2017). The same goes here for questions of proximity and accessibility (Lestrade 2013). Indeed, generally studied in its geographical dimension, proximity has taken a symbolic social dimension that has activated studies of its perception and representation (Bognon 2016; Fleury 2010). Accessibility raises the question of spatial inequalities, it can create "food desert" in cities, a hot new topic for city planners and authorities (Pierre 2016). The renewal of local markets has generated new works on their perception; that is on the cultural values attached to them as places of sociability and reconnections (Navarro 2015; Navereau and Espinasse 2016). Their urbanistic quality, their location and the distribution channels are also examined in light of the issues of sustainable development (Dugot and Pouzenc 2010). Globalization comes also to light, as it has the effect of reinventing and diversifying what is exotic, and, often in opposition, what is traditional. In contrast, the Mall is often regarded as the emblematic places of globalization, a dominant form of globalization that is disputed: "These 'globalized companies' are somehow the most visible to citizens and consumers, urban or rural, because they are present in their familiar landscape, in the daily territory of mobility and purchases. They thus become the expression of globalization" (Lemarchand 2017, p. 25):

In 1984 (p. 9), Jacqueline Beaujeu-Garnier wrote that "retailing is closely linked to all dimensions of human society. It reflects its characteristics, but also helps shape its evolution". Globalization is no exception, and in the international trading exchange, there are different channels and networks other than mass retailers, as demonstrated by A. Bouhali (2016) in her Ph.D. on Cairo and Oran. In those two cities, as elsewhere, trade happens through what Choplin and Pliez (2016) call a *quiet globalization*, and a *globalization from below*. Migration, a well-studied topic associated with globalization has also the favor of trade and commerce specialists. In fact, Emmanuel Ma Mung and Gildas Simon look at it as early as 1990 while studying the *Commerçants maghrébins et asiatiques en France* (Maghrebin and Asian traders in France). Indeed, space occupied by migrants is often composed of commerce's; their retail products act as identity staples and cultural references. However, some of those retail places are gradually transforming themselves as exotic places in the multicultural urban space, for traveling "indigenous" consumers become accustomed through travels to these products (Dubucs and Endelstein 2017). As Mermet (2012) has shown, the staging of cultural heritage and the scenographic display of products make the store, as a place, an object of consumption. Places of shopping, places of walking, and places of cultural encounters are often included in a tourist advertising (Lemarchand 2004, 2007; Lemarchand and Leroux 2008).

Times and social rhythms also question the relationship between urban life and consumption, as demonstrated by a conference held in Lille in 2003 on *Temps des courses, course des temps (Bondue 2004)*. We increasingly categorize the merchant

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order is pre-made on the Internet [...] and the customer chooses a withdrawal window (https://www.definitions-marketing.com/definition/drive/ author: B. Bathelot, updated on April 30, 2016).

spaces according to the rhythms of life, between those we frequent daily from those where we go for recreation, whether it is the food market close to home, or the craft market near his vacation spot. Food trade is also the subject of new researches: new retailers setting in urban neighborhoods undergoing transformation (Delamarre 2016), or in rural areas (Cahagne 2015; Delaville 2018). The question of gentrification through commerce, or the valorization of rural space after a period of commercial desertification, are questions geographers try to tackle.

The enrichment of interdisciplinarity to which the geographers working on retailing have long been sensitive, with the works of Péron and De La Pradelle, as well as those of the sociologist Claudine Marenco, continues today. In takes the form of new meetings or new interdisciplinary projects revolving around retail trade, but also consumption; a growing interdisciplinary research community has been formed by geographers, sociologists, anthropologists, and economists. In ethnology, the works of E. Lallement (2005, 2010) on the Boulevard Barbès in Paris, question retailing and multiculturalism; in economics, those of Philippe Moati (2001) refer to the organization of companies, and the model of society associated with them, while the anthropologist Anne Raulin (2000) addresses the issue of ethnic shopping areas in major cities. Thus, the recent work of the CNFG's Commission on Geography of Commerce, fed by these crosses disciplinary, has widened the questioning of the links between the retail trade, its environment, urban or rural, and its socio-cultural context.

These new topics are not exhaustive. However, the landscape would not be complete without mentioning researches born out of the will to question the interconnectedness of societies, especially those from the postindustrial western societies, or global North, and those of so-called developing worlds, or global South. Trade and commerce are here prisms through which the North-South connections can be seen, starting with the questions of inequalities, and of course, migrations. There is the need to pursue scientific collaborations between French-speaking geographers from Europe, and Africa. For that matter, the last conference organized at the University of Le Havre in France in May 2018 on *Trade of the Future* brought together geographers from the retail trade from France, Belgium, Switzerland, but also Ivory Coast, Senegal, Togo, Morocco or Brazil, to compare case studies, and find convergent new research topics. For instance, the North-South cross-questioning on the issues of trade and consumption showed us that the problems of e-commerce arise as much in the cities of Abidjan and Daola in Ivory Coast, then in Paris and Dijon in France (Belton-Chevallier et al. 2016; Nassa 2012; Ouattara and Adou 2018).

11.3   Conclusion

Commerce and trade connect people and societies. In French, the expression "*il elle est de bon commerce*" means that the person is easy to relate with, that it is nice to talk to him or her. For geographers, that fact goes along with another one: trade

happens in space, it creates network out of nucleus, nods, and places. Most important, trade and commerce happen to participate in the creation of territories, be it a port city, a regional center, or a local center place. As we saw, with its regional focus, Vidalian geography saw commerce as one thing among others happening in space. It fails to see its importance, most notably in cities, as much as they fail to grasp the central place cities where taking in French society and space. Hence the early association between retail geography and the city, and for that matter with urban geography. With the cultural turn, without leaving the city and traditional themes and subjects, the geography of retailing moves toward a more social and cultural realm. Commerce became a prism to look at or revisit subject in new light and dimension. New themes combine retailing with the issues of societies such as entertainment, the environment, globalization, migration or cultural diversity. These topics favor new approaches crossing the glances of interdisciplinarity, but also North-South fed post-colonialism, enriching the knowledge of these places and more broadly of the interplay of the commercial and societal systems.

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Chapter 12
Retail Geography in Italy: Historical Evolution and Future Challenges

Caterina Cirelli, Teresa Graziano, Leonardo Mercatanti, Enrico Nicosia, and Carmelo Maria Porto

Abstract This chapter deals with the evolution of retail geography in Italy through a double perspective of analysis. On the one hand, the work deals with the transformation of retailscapes in the country, ranging from the first department stores to the evolution of retail in central and suburban areas. On the other hand, the chapter scrutinises the emergence of retail geography in Italy as a sub-discipline, strictly linked to the urban and economic approach, in order to deeply evaluate the geographical contribution in interpreting as well as analysing the transformation of retail and consumption places, which, in recent decades, have been completely reshaping forms and functions of Italian urban and suburban spaces.

Keywords Retail · Italy · Resilience

12.1 Retail and Geography

In recent decades, significant changes have shaped several urban and geo-economic structures, as consequences of phenomena such as the growing globalisation, the transition to post Fordism and the emergence of neoliberal urban policies. These changes have highlighted the role of retail and consumption – both of goods and

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places – in reshaping economic structures and urban spaces. The growing importance given to the "commercial culture" as catalysts of change has in fact fuelled a series of conceptualisations in several disciplines, by underlining the crucial contribution of geography in reading retailscapes and, consequently, the osmotic relations between spaces and places of consumption. While retail geography "the study of the interrelations between the spatial characteristics of the organisation and the location of commerce on the one hand, and consumer behaviour on the other" (Potter 1982), this sub-discipline is intersected with other geographical strands of research, particularly urban and economic geography, although keeping its own specific methodological-theoretical approach.

In fact, since the beginning, commercial spaces do not only fulfil the purely economic function of "containers" of exchanges, but they have always encompassed a thick network of social, cultural and political dynamics. Since ancient times, the geographic and symbolic centre of cities was embedded into the main square, where political and religious powers competed for the use of space with the economic powers. Commercial spaces, ranging from the Greek Agora to the medieval citadels market and Arabian souks, do not only play the role of supporting interchanges, but also a social role owing to the relational dynamics and the cultural implications that are closely linked to commercial practices (Cirelli and Graziano 2015).

In the Western countries, during the Industrial Revolution, the dynamics associated with the change in the production system as well as to the subsequent mass urbanisation overturned the appearance of the main metropolises of that time. One of the most tangible signs was the modernisation of the commercial scheme, which was necessary to satisfy the new demands for consumption from an urban population that was constantly growing. Between the end of the eighteenth century and the beginning of the nineteenth century, in Paris, the *passages* emerged as the first kinds of indoor shopping galleries overlapping the real geography of the city. They were innovative spaces at that time, devoted to what we would identify today as leisure, by combining a specific commercial offer and entertainment as a healthy and safe alternative to crowded, smelly streets. Apart from the commercial function, Parisian galleries also encompassed symbolic implications of community-building, since these icons of the Industrial Revolution, triumphs of glass and cement, embodied the increasing technological progression, in addition to being transformed into long walkways where the Paris bourgeoisie celebrated itself through a veritable purchasing rite. After the emergence of big department stores such as *Le Bon Marché* which, from the second half of the nineteenth century, guaranteed an array of luxurious products at the lowest prices, the *passages* lost their commercial leadership and became iconic monuments within the urban area due to their strong symbolical power.

During the same period, in Italy, shopping galleries in Milan, Turin and Naples appeared as veritable architectural triumphs which, apart from their commercial purposes, embedded a symbolical value in a context of growing cultural competition among the different Italian cities for the role of the capital of the United Nation.

In the country, the first department store, *Aux Villes d'Italie*, was opened at the end of the nineteenth century by Bocconi brothers, renamed in 1880 *Alle città*

d'Italia. After the opening of nine new stores in Milan and Rome some years later, the Bocconi department stores were sold to Senator Borletti, who commissioned Gabriele D'Annunzio to provide them with a new name. Thus in 1917, *Rinascente* in Milan was opened, by highlighting the beginning of a modernisation process that not only involved the action of purchasing goods, but also influenced lifestyles, habits and, consequently, the role of the city centre, especially after the emergence of popular brands such as *Upim*.

As it will be scrutinised in detail in the following paragraphs, there are numerous cases, both nationally and internationally, of city centres in the period after the Second World War which underwent a decline in both their roles and purposes as well as their residential attractiveness. Although later in Europe, and even later in Italy, the huge suburban areas of consumerism from the USA, the malls, started to trigger consolidates debate and to render a different image of the urban system. The progressive defunctionalisation of the city centre was ascribable to the dynamics that redesigned the suburban-centre relationships on a global scale, but also to a generalised change in the attitude towards buying, which was always more orientated towards mass consumerism of mass-produced goods from the post-war period boom onwards.

From the shopping galleries and the nineteenth-century department stores to the modern shopping centres, via the suburban malls and open-air shopping streets, the Italian panorama of commerce underwent big transformations over the years, within a mutually contaminating relationship between urban spaces, citizens, tourists and city users. These transformations reflect, and in some cases anticipate, the changes of contemporary cities: a complex, organised ecosystem, based on dynamic relations and on the reciprocal interdependencies between the different territorial components on both a local and global scale (Cirelli and Nicosia 2013).

By virtue of the importance held by models, practices and consumer and commercial points in redesigning urban and/or suburban spaces and in transforming the connected socio-economic and cultural set-ups, this work aims to adopt a double research outlook. On the one hand, this work aims to describe the evolution of Italian thinking about the geography of commerce, based on the first theories outlined from the period after the Second World War to lead to the most recent conceptualisations. Revisiting the evolution of the geography of commerce in Italy means tracing the main evolutionary lines of urban studies which, from the fifties onwards, saw geography (accompanied by sociology and town planning) question the existing relationship between the organisational asset of retail commerce and the functional organisation of cities. In fact, since the pioneering studies from the Chicago school, American urban geography was focused on the agglomerative trends of commercial activities, creating a classification[1] of the intra-urban agglomerations of commercial and service activities which had to become the base for future practical applications (Dematteis 1966; Rolph 1929).

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[1] This classification comprises four categories with decreasing scope: the Central Business District (CBD), the Regional Centers, the Community Centers and the Neighbourhood Centers.

On the other hand, the chapter focuses on the transformations of the commercial sector in Italy, from the opening of the first galleries to the birth of suburban shopping centres, via the different types and functions embodied by commerce in central areas. Apart from the main characteristics of the different commercial places being explored, as well as their distribution on a national scale, the implications in terms of spatial reconfiguration and changes to the socio-economic systems will also be surveyed, even after the effects of the current economic recession.

12.2   The Fifties-Sixties. The Birth of the Geography of Commerce in Italy

In the period immediately after the Second World War, Italian geography seemed to be behind in comparison with other schools of thought in the west regarding the evolution of urban studies. However, it is also true that, for all the first half of the twentieth century, despite proclamations and urban work by the fascists, Italian cities were still anchored to functional-organisational models from the nineteenth century.

Whilst western capitals were touched by deep urban metamorphoses, our cities showed scarce absorbency to innovations, which is partly owing to the uniqueness of Italian settlements which, as has been seen, is identifiable by the close network of small- and medium-sized towns, which are less partial to the big urban transformations that are more typical of big cities. On the other hand, up until the 1950s, more than half of the Italian population was still working the countryside and lived in a rural environment characterised by settlements which were more or less centralised around the idea that commercial areas were fundamentally the market in the square. The latter model which in the same small, medium and semi-large cities continued to have a leading role albeit undergoing competition from the more modern formats (consider the historical markets in Palermo and Catania, but also the market at Porta Palazzo in Turin, or the San Lorenzo market in Florence) (Castagnoli 2006; Cirelli and Faia 2007; Loda and Mancini 2003, 2004; Mercatanti 2009).

Italian motorisation and urbanism geography, supported by the large industrial development, broadened its horizons towards location studies and, enduring the contamination from social sciences and the economy, developed a series of studies on the relationships between urban functions, the structure of commerce and city rankings.

More specifically, the first research on the geography of commerce, which was still understood as a specification of economic geography, was owed to the studies by Scarin on Udine (1941) and Florence (1947) and those by Savona on Ferro (1952), Vallega (1964) and Nice (1964) even though interest towards the subject was only consolidated in the 1960s in conjunction with the development of urban studies (also in Italy) by Christaller which partially unhinged the predominantly morphological approach on the basis of the research by Toschi (1897–1966). The latter, with his masterpieces, *Geografia Urbana* (1947) and *La città* (1966) had the

merit of introducing the first strand of urban and economic geography studies into Italy.[2]

Between the 1950s and 1960s (and for a large part of the following two decades) economic and urban geography was engulfed by the functionalism that brought the foundations for the studies on the region from Christaller's (1933) and Lösch's (1940) theories, based on the gravitational capacity of the cities that define the rank.[3] The studies by Berry and Garrison (1958) must be taken into consideration and their theory on tertiary activity to resolve the problem stemming from the hypothesis of uniform distribution of consumers and their purchasing power and also Christaller's theory should be referenced within urban town centres, creating new hierarchies whose ranks range from regional shopping centres to local shopping centres up to local shops.

Surpassing one of the main limits of application, in terms of planning, of the studies influenced by the theory of central locations and thus the scale of observation used which was placed in an individual urban town centre and its area of influence, is mainly owed to Berry (1967) and subsequently to other Anglo-Saxon scholars (Davies 1976; Scott 1970), via an approach renamed Marketing-Geography. Marketing tools[4]: "will facilitate an integrated approach within analyses of both the demand for various goods and services and for the different structures that allow for its satisfaction (supply structure), including the respective distribution system" (Heinritz and Klein 2002).

At that same time, the systematisation of German and Anglo-Saxon literature on the relationship between tertiary activities and the urban setting was owed to Bonetti's work in 1967, which would allow for an alignment of the studies conducted by Italian geographers on the developments in international geography for suburban localisation of trade.

As was already stressed, despite the main European and American cities undergoing big transformations (shape, structure and policies) feeding the modern urban and regional studies, the functional organisation of Italian cities was still anchored to models that had already been used and were less inclined to change, especially in the commercial distribution sector. This was mainly the case in small- and medium-sized areas.

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[2] The first manuals on geography applied to the economy and territorial organisation are thanks to Toschi (Toschi, *Geografia economica*, 1959).

[3] 'The ranking of a city and its attractiveness in its geographical surroundings are factors that descend from quantity, quality and variety of the services offered and amongst them, a role of complete significance for commercial activities. The allocation of these services actually constitutes an indicator of focus which can read and interpret land management and their evolutionary dynamic, albeit with due caution. There is therefore a clear urban development interaction between demographic growth and qualitative-quantitative expansion of services, with cumulative effects which tend to boost the centrality position. If the spatial extension of a gravitational area depends on the functions that are located in their centre, it can be said that the bigger the attractiveness of this centre with its higher ranking functions, the bigger its gravitational force' (Pollice 2007, p. 186).

[4] 'The development of any marketing strategy gives rise to spatial structures and functional relations that can fully indent on the scope of geographical research' (Heinritz and Klein 2002, p. 429).

Subject to some exceptions like Rome, Milan, Turin and Naples, this is the reality that was seen by Italian geographers between the 1950s and 1960s; the first pioneering study in this sense was by Dematteis (1966) who applied the theory of central localities to the urban system in Turin. There were many other studies that came afterwards which partially converged in the national research prior to the creation of the "Italian commercial paper" by Tagliacarne (1968). What is clear is that, throughout the considered time frame, the structure of relations between the distribution system and structuring of urban spaces has not undergone any relevant changes.

Even in the presence of a deep and radical socio-economic and settlement revolution which was characterised by rural depopulation and substantial sudden industrial development, coupled with an important improvement in the earnings for families and the subsequent increase in private consumer expenditure, as well as the progressive urbanisation of the population and the substantial inter-regional migration movements (from the south to the north) and infra-regional (from inner regions to the coasts), the structure of small local shops was still the reinforcement of the Italian distribution system (Coppola 1997; Dematteis 1992, 1995).

As emerged in a historical reconstruction on the evolution of the relationship between cities and commerce proposed by Bullado (2007a, b, p. 31), the:

> New industrial development is engaged in an economic context that is strongly linked to agriculture; the labour market shows a wider supply against modest demand, as it is strongly conditioned by the lack of available means (technological and financial). In this domain, commerce took on the role of a buffer, becoming a haven where excesses that were not absorbed by other sectors were brought together in a global reference context where the services, and the service sector in general, were called upon to play a new role which they were not yet ready for due to shortcomings from the system and the specific entrepreneurial culture.

Therefore, the constant economic growth, which between the 1950s and 1960s had its main thrust in the industry, contributed to partially redesigning a modern distribution system. In fact, at the same time, commerce was strongly anchored to traditional ways of selling due to the proliferation of neighbourhood shops managed by families where the level of service (according to Christaller's approach) is for those living nearby, which is also due to a transport system that was still slow and people being unable to move about independently.

In the 1960s, even in our country, the beginning of a discreet process of modernisation of the commercial offer can be seen thanks to the significant development of department stores and food supermarkets (along with the historic brand Standa, new companies were created including Pam, Végé, Esselunga, Despar, G.S.); both in small towns and in big cities, which is a symbol of industrialisation and the economic boom (Milan, Rome, Turin and Bologna are amongst the most striking examples), the neighbourhood shops still represent the backbone of the Italian distribution system, both in terms of food and other product groups. They continue to mark the territory and life out on the streets, thanks to their capacity to guarantee certain ways to socialise, which makes the process of shopping rather complex, multi-dimensional

and interactive whilst at the same time, contributing to supporting "regional" characterisations of consumption.

The commercial revolution had begun, along with the circulation of new technologies that could amplify the conveyance of information and reach a constantly growing number of consumers; fundamentally the great metamorphosis in consumption habits and customs amongst Italians was defined by the use of television. In 1957, the only Rai (Italian national public broadcasting company) channel showed the advertising programme Carosello after the news, which is evidence of the birth of new consumerism rites for the baby-boom generation. The main companies producing goods soon realised that if supermarkets had got rid of the need to be served, making the act of buying easier and faster, television could act as an essential, hidden, persuasive tool to guide consumers' decisions, who are often disorientated when there is too much on offer.[5]

At the end of the 1970s, the seed of commercial modernisation was fully planted in the heads of Italian consumers; the following decade is when the knock-on effect would fully involve the complete distribution system in the country, contributing to rewriting the sector's statistics which replaced, in those years, a picture in which modernity seemed to succumb to tradition. Even in the more "modern" northern part of Italy, 95% of the companies still only had one office, 40% of these used a sales area of less than 25 m^2 and only 4% had implemented self-service (Lanzani 2002).

12.3 The Seventies-Nineties: The Coming of Commercial Modernity

By the beginning of the 1970s, the successful cycle that had been marked by the phrase "economic miracle" in the previous two decades was sealed. Right up until the end of the previous decade in fact, the excellent value reached by the GDP favoured attaining a significant level of consumerism and as a result, opened up big possibilities in the commerce sector. This was even despite the legislator at that time being absent and there not being any regulation of the sector, which was highly necessary, created. Unfortunately, the negative impact of this legal vacuum in Italy, like the phenomenon of the excessive spread of small points of sale (pulverisation) or the backwardness in the distribution structure, started to become clearer and caused political and scientific debate (Faravelli 2015). In 1973, two real atlases were created which showed the growing interest surrounding the trade sector and its evolution. They were the *Atlante economico-commerciale delle regioni d'Italia* (Italian economic-commercial atlas) and *Atlante delle aree commerciali d'Italia* (Commercial atlas of Italy) – by Tagliacarne. The most prolific works of the

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[5] The most successful films made on the topic are: *Grandi magazzini* by Camerini (1939), *Il Boom* by Vittorio De Sica (1963), *Il Successo* by Mauro Morassi, with Vittorio Gassman (1963).

geographers, despite them often being the result of reflections that cross the purely commercial context, were mostly by Bonetti at the beginning of the 1970s who, as was already foreseen in the previous paragraph, focused on the localisation of retail, asking himself quite fittingly if "there is an urban area where all or most of retail activity is centralised? Or are there more areas? The problem is to define the importance that retail can have" (1971, p. 27). Bonetti himself in 1979 proposed yet another review of the popular Christaller model.

In the next decade, modern distribution in Italy took off. With reference to the evolutionary dynamics of the location of the population and economic activities in urban areas, they were years in which there was a process of "counter-urbanisation": the biggest metropolitan areas showed a stalemate or a demographic decrease in favour of small- and medium-sized cities, towards which residential and tertiary functions were to be redistributed. In the 1980s and 1990s, the phenomenon is often followed by cases of "deurbanisation", in other words the depopulation of cities by masses of the inhabitants that settled in adjacent towns (Fielding 1989).

The development stage of commercial structure from 1970 to 1990 was primarily characterised by the general increase of supermarket sizes. Besides increasing the pre-existing structures, there are new ones whose surface area easily exceeded 10,000 m^2 for the first time.

From a commercial point of view the 1970s were described as exceptionally contradictory (Lanzani 2002). In fact, the contemporary presence of two opposed phenomena is witnessed. On the one hand, small traditional stores which have kept their position and role in the different city centres and are still important recognisable elements of urban areas. On the other hand, there are lots of new minimarkets that are opening up (*superette* or small retail activity) as well as hypermarkets.[6] The first "all-purpose" shopping centres started to pop up; these are structures with a large hypermarket attached to a smaller-sized gallery of shops to make the offer more rounded. This innovation which was imported from foreign models, most particularly from the north of Europe and the USA, used Lombardia as the main region for experimentation despite the first shopping centre in Italy being opened in Emilia-Romagna in 1971. Due to the remarkable demographic growth in the last few decades, especially so from 1961 to 1971, 1 year later one of the first Italian hypermarkets was opened in Carugate (Milan), Carrefour, in collaboration with Standa, which was one of the most important mass retailers in Italy at that time. The specific formula was distinguished by the presence of 12 shops. Over the years, the space allocated for commercial activity was increased and nowadays it houses one of the most important shopping centres in Europe, which has been called "Carosello" since 1997. The example in Carugate is important since the decision regarding location by Carrefour has had an urban and demographic impact, given that it has had an influence on the urban forecasts of the municipality of Carugate which has

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[6] Hypermarkets must be understood as a retail activity with sales areas of more than 2500 m^2, separated into departments (food and non-food), each of which respectively with the same characteristics as a supermarket and department store (Schillaci et al. 2006, pp. 78–79).

allocated more land for managerial, logistical and commercial activities (Limonta et al. 2009; Zerbi 1977).

This early experimental stage on the land of a significant size for commercial use clearly arose from foreign models, most of which were from the States. However, consumer habits in Italy are different; at the beginning of the 1970s they were still tied to daily visits to the smaller shops, especially those selling food. There have been several contemporary studies conducted on a municipal level or at most, on a provincial level on the subject. The work done by Turco on central localities in the province of Milan (1977) and by Zerbi on the territorial distribution of retail activity in the metropolitan area of Milan (1977), by Miani on Parma and Emilia-Romagna (1973, 1982, 1986), by Cusimano on traders in the Palermo's old town (1983, 1988), by Formica on markets in western Sicily (1970) and by Micale on Enna e Caltanissetta (1972), Trimarchi (1976) on commercial activity in Sicily, by Ruggiero and Cirelli on commercial retail structures in Catania (1989) should all be highlighted.

Right at the beginning of the 1970s in a reflection on the theme of commerce, it was highlighted that the decisions concerning commercial planning must be inseparable from the town planning decisions in order to compete in constructing more efficient urban systems and a commercial service which is more in line with the needs of the population.

With the aim of putting a stop to the pre-existing disjointedness of regulations, Law 11 June 1971 no. 426 (Trade discipline) came into force, which was in effect for almost 30 years. It aimed to launch ambitious programmed planning, with an emphasis on the distribution network of retail trade.[7] This law had the principal aim of promoting a more rational evolution of the distribution system in Italy, but it was mostly disregarded.

Since halfway through the 1970s and for almost a decade afterwards, the tendency to open up to new commercial activity was consolidated. However, in different regions in Italy, a progressive reduction in the dimensions of new accomplishments was witnessed. The aim was to adapt the importation models to the current social and territorial reality in Italy. Within this context, more hypermarkets and large

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[7] The law from 1971, besides the series limitation of being created very late on with regards the demands from the country and society, was criticised as it did not clearly identify the prioritised decisions on trade policies, for which reference should have been made to the municipalities when drafting the development plans. The consequence was the partial inefficacy of this law, which did not favour the balanced development of the distribution network with the real aim of making it more modern and to open it up to new experiences which were closer to the demands of companies and consumers alike. In the absence of any strong orientation from the regions, the local authorities favoured corporate thrusts with a tendency towards the crystallisation of the market and made the admission of new subjects and new production experiences difficult, and it is this competition which has made talks between territorial bodies hard. Furthermore, and equally as important, the law has not managed to restrict the role of the political balances in commercial decisions (Lanzani 2002, p. 491; Melandri 2004, pp. 186–187; Nicosia 2007b; Talarico and Polacco 2012, pp. 75–83).

supermarkets were developed[8] whilst the focus on designing all the sales and service activities that are included in shopping centres decreased. The new structures were located in open remote areas which did have access to the city for users. The level of distribution is always closely linked to the degree of economic development of the population residing in the area and to areas with a good level of attractiveness for tourists. This trend lasted for around 10 years (Bullado 2007a, b).

Distribution methods in those years underwent a strange innovation which became widely spread; in other words, the creation of "street markets", a model that could be attributed to experiences in the United States from the 1930s (famous examples are seen on Las Vegas Boulevard or Sunset Strip in Los Angeles). Street markets, which often distinguishes the landscapes on the outskirts of many cities, can be understood as a set of commercial-productive structures, free spaces and residential buildings (to a marginal extent) along which, like a strip, a kind of "linear city" is developed. There are obviously big differences between the different street markets, deriving from the different economic and socio-cultural contexts (Fratini 2000, pp. 230–235).

In Italy, street markets were mostly developed in suburban areas in Lombardia and Veneto. Even in the south, particularly in Puglia, the phenomenon was quite prominent. Here, street markets favoured the development of medium-sized facilities, taking on the linking feature between commercial and productive activities and private residences. In the north of Italy, however, due to the greater presence of medium and large-sized commercial activity, the relationship between street markets and trade services is much stronger.

> Before the turbulent development of hypermarkets and shopping centres, street markets [...] were set up as the prime Italian commercial space with dominant, if not exclusive, access for cars, like the prime place for experimentation of new advertising architecture, like the theatre of original entrepreneurial and trade initiatives, like the prime settlement structure which undermined Christaller's scheme on the distribution supply with its link between commerce and city centres and its neat hierarchical systems (Lanzani 2002, p. 491).

In the last 20 years, geographical literature has dealt with the subject of commerce only marginally and mostly as a result of urban and/or social changes. A similar reflection about the situation was made by Landini (1980) who highlights the geographical nature of the commercial service sector in Italy. Based on data analysis, the author highlights the socio-economic disparities in the country and identifies three big macro areas: the north-west, the centre and the south. The north-west provided a qualitatively good offer which was well distributed spatially, whilst in the south there was a lack of offer and it was only in one area. The volume by Petro Petsimeris (1989) was extensively popular where the input studied the urban networks between decentralisation and centralisation, considering the emergence of new urban dynamics, new services and a new relationship between cities and the

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[8] Supermarkets were defined as a retail activity operating in the food sector, usually self-service with payment upon leaving, with a sales surface area of more than 400 m2 and a wide range of mass products which are generally pre-packaged, as well as, eventually, some non-food items for domestic use.

countryside. The work by Landini and Salvatori (1989) is surely too of interest on the local systems in the Italian regions between 1970 and 1985.

The 1980s were characterised by a clear substitution effect between the food and the non-food sector. Besides the development model of mass retail, thanks to some relevant experiments and more focus on the catchment areas and the first studies on geolocalisation, it was always becoming more linked to particular social, cultural peculiarities within Italy, disengaging almost completely from importation models outside of Europe.

At the beginning of the 1980s, the creation of new shopping centres depended much more on not only the areas with demand in large, populated cities, but also on the demand created by small- and medium-sized cities. What followed was a distribution throughout the country that was linked to the degree of economic development of the population, be they residents or tourists. The phenomenon was already taking off from the second half of the previous decade but it was in the 1980s that it became significant.

The choice of location for the large- and medium-sized commercial structures in Italy concerned the outskirts of towns and particularly the town boundaries and main roads or infrastructural nodes. Different decisions were made in the following decade and were resoundingly unsuccessful (the Vulcania shopping centre in Catania), despite other situations in Europe. The strategic importance of the main roads contributed to defining their renovation and broadening.

Since the midway point of the 1980s, the "shopping centre" phenomenon was developed in a much more meaningful way, both regarding the amount of them and their average size. Clearly different types of shopping centres started to pop up with particular roles and functions. This change is very important because from a sociological point of view it involves the creation of a new public place, meeting point and recreational area which is not solely for the purpose of making purchases. This trend became all the more clearer at the end of the 1980s and was seen as a specific strategy by those managing the commercial division. Shopping centres became a public meeting point and the average sizes increased. The pre-existing facilities envisaged areas for reading, recreation and fun for adults and children alike (Bullado 2007a, b, p. 34). The interest surrounding shopping centres started to undermine the survival of some shops in the cities.

A new environment was created for shopping, free time, meeting up and entertainment; these new spaces, often conceived by dramatic architectural projects, were created to ensure new roles for the cities, they have an important place in the overall regeneration of the urban environment and they bring a close network of social and cultural relations to life.

12.4   The Nineties-Noughties: Commerce Between Shopping Centres and Town Centres

Therefore, modern cities, with the purpose of adapting to the requests of the deindustrialised economy and the ongoing social changes, took steps to accommodate consumer activities more so than manufacturing activities and it became different from the traditional context, becoming a "special" place and sometimes even surreal or fantastic "...where the show is associated to art, museums, but also to shopping: new places are born which take over from the squares and streets, where it possible to meet and socialise like inside the shopping centres, airports, theme parks and all the other semi-artificial environments, designed by a society that is constantly developing" (Miani 2006, p. 48).

The deep and radical changes linked to consumption and commercial offer are highly visible both inside and outside of cities. On organising the different areas, two types of offers for distribution services were made: Within commerce for consolidated areas of the city, primarily in the old town centres, where the supply of so many family-run shops are side-by-side with local markets and department stores; outside, shopping centres that have been placed in the suburbs, along with hypermarkets and other services that complement large distribution.

This is the picture that emerges too from the studies by geographers, amongst which are the works by Corna Pellegrini (1992), Bullado (1997) and Scorrano (1997, 1999). The essay by Minca (1994) "Riflessioni su geografia e postmoderno: Il caso del West Edmonton Mall" (Reflections on geography and the post-modern era: The case of the West Edmonton Mall) should also be highlighted. As by way of the most paradigmatic case of mall (the Canadian West Edmonton Mall), it incorporated a reflection on American geography and post-modernity in Italy.

A rediscovery of sorts of the relevance of retail commerce in geographic research was established, which too was a result of the subsequent transformations with the coming into force of the reform affecting the trade sector (Legislative Decree 114/1998, also known was the Bersani Reform).[9] The Bersani law is seen as a

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[9] The demand for a new reform on trade came about from the characteristics of "pulverisation, traditions and backwardness" that the sector showed (Censimento generale dell'industria e del commercio 1971) at the beginning of the 1970s. This is why the government decided to enact a commercial reform that was able to defend traders' positions regarding the progression of the modern distribution formulas (Baccarani 2001, pp. 50–56; Pellegrini 2001, pp. 23–27). The constraints imposed on distribution from the regulation that had regulated it for almost 30 years slowed down the development, giving rise to a big debate. In time, the need to review the law to modify its content became even stronger and it led to the enactment of Legislative Decree no. 114/1998 in 1998, known as "Trade Reform" or commercial federalism, which was an important legislative innovation, despite it not being always so clear. With this law, Italian regions are given the power to independently legislate on commerce. However, despite the innovative scope of the Bersani reform in 1998, many of the freeing effects that were hoped for have not been successful, from which the demand for a new response, the strong driving force of liberalisation ended up being decisively "weakened" by the regions, which were given significant power regarding its enforcement.

measure for introducing a substantial deregulation in Italian commerce, so that it can reach the modernisation of the sector.

Not only the legal aspect but also the dynamics of change in the relationships between industry and distribution involved effects on the configuration of the distribution system and the territorial reorganisation of shopping and leisure activities. New commercial formats spread, such as the open-air shopping centres and factory outlets, which contributed to changing urban and suburban shopping settings and there was the definitive multiplication of suburban shopping centres with little regulation (Schillaci et al. 2006).

There is no doubt that this new cultural and legal orientation which was aimed at resizing the institutional barriers for small-sized commerce had given rise to strong discontinuity in different local economic fabrics, generating positive processes of requalification of the traditional commercial network yet with the removal of marginal activities too.

The old parts of towns suffered the most, which in competition with suburban shopping centres, experienced a lack of competitiveness.

With the coming of the new millennium, scientific interest converged on themes regarding the transformation of consumer spaces and the subsequent repercussions on the social and urban fabric.

The ripened interest on the theme of commercial activity was confirmed during the 28th Italian Geographic Congress (Rome 2000) with the section entitled "Geography of commercial distribution between population geography and consumer geography" coordinated by Luciano Buzzetti, aimed to systematise "...the state of research of an extremely dynamic economic activity sector which is at an intense stage of evolution...Commercial activity, in fact it is going through a process of reorganisation that is so strong and decisive that we can easily speak about an actual commercial revolution, on a similar basis to the industrial revolution at the beginning of the nineteenth century..." (Bullado 2002; Bullado and Buzzetti 2001).

From the beginning of the noughties onwards, the Italian geographic community assimilated and reworked research insights and suggestions even from abroad in an original way. They were particularly in alignment with conceptualisations and the developed methodological approaches within the international research network field *City, Retail and Consumption* which scholars and universities from different counties are a part of (besides Italy, Portugal, Spain, France, Brazil, Mexico). Within the specific national context, it is within the Italian Geographers Association work

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Furthermore, following the review of Title 5 of the Constitution, which took place in 2001, giving exclusive legislative competence to the regions regarding commerce, the worries surrounding a possible regressive phase on the right path towards modernisation and distributive liberalisation were justified, as was the case to a certain extent in Sicily.

Law 248/2006 aims to establish a series of general principles to place at the foundation of performing any commercial activity. It intends to remedy the inefficiency shown by the regions, which have shown to be highly exposed to the pressures of involved interests and inadequate for defending competition values. This reform was, however, introduced just before the beginning of the serious economic situation which began with the crisis in 2008; it damaged urban commerce, especially that of a traditional nature in Italian historical city centres.

group which is coordinated by Caterina Cirelli, "Il Commercio, fra tradizione e innovazione" (Commerce, between tradition and innovation), which has highlighted a specifically empirical-theoretical Italian framework since 2004. Although in the heterogeneity of approaches, the components of the groups were rediscovered as united by the shared interest surrounding the geo-territorial implications of commerce and consumerism and their experience was marked by conferences and study days, as well as the publication of different monographic works for more than 10 years (D'Alessandro 2007; Faravelli and Clerici 2004).

The 20 years in question was therefore characterised by big changes whereby the temporary dynamic of which highlighted the effects that have been had.

The growing competitiveness and the social transformations of urban spaces led cities to adjust their commercial roles to the new demands of post-modern consumers. There were so many cities that set the goal of revitalising the old parts of town centres and strengthening economic and service roles to tackle the "commercial desertification" process. Many shopping streets in the old towns in Italy show the tangible signs of restructuralisation and functional reorganisation arising from the processes of modernisation via a recovery process of some aspects linked to tradition. The policies implemented during these 20 years were geared towards streamlining and recovering old town centres, more so than physically making the city bigger by different means. Based on the consolidated urban fabric, these policies were moving towards improving liveability, from the old town centres to the outskirts, but more often than not towards the creation of development opportunities able to restore quality, identity and opportunity from economic recovery, whilst respecting the paradigm of sustainability with urban development projects which could restore the aforementioned, thus avoiding social and economic conflicts.

The old town has always been the nucleus of any urban scenery and commerce in this area took on the dimension of a strong social attraction, in conjunction with the services that have always fed the attractive dynamics such as cultural, public and directional activities. Specifically in Italy old town centres, the studies by Loda (2002); Meini and Monheim (2002, also in Cirelli 2007a, b); Fabris (2003); Cirelli et al. (2006) and Bullado (2007a, 2009) were focused upon.

From the beginning of the new millennium, in some of the old town centres of large- and medium-sized Italian cities, new commercial promotion policies have been undertaken, as happened in the United States with the *Lifestyle Center* and in Europe with the spread of *Town Centre Management*.[10]

The first *Lifestyle Centers* were built in Castel Maggiore in the Bologna province and in Venice where innovative retail and interactive formats, convenience stores and farmers' markets, tasting-restaurants, training, events, sales spaces, music and entertainment were all proposed. The aim was to favour organisational models for adapting retail commerce to the modern dynamics of the market to consumption. Of

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[10] The experience of the British *Town Centre Management* has opened the doors in Europe to a way of revitalising commerce and town centres which, in a short time, has shown its efficacy by spreading to other European countries.

the most advanced ways of cooperation we can think about integrated centres, consortiums, road and old town centre associations, and urban galleries.

The advantages of overcoming the individualistic logic determine the trigger of a virtuous development process that has generated, via the launch of communal activities (brands, services, scale economies of scale, local development strategies), a series of important benefits. The driving force for the birth and development of these types of unitary management arose from the growth of large distribution, which allows traders to review their consolidated positions through the perspective of a more efficient commercial service. The success of these formulas consists in the capacity to offer clients a level of services which is comparable to those that can be found in modern suburban shopping centres via a diverse and specialised product group offer, which provides an extra edge, that of benefiting from artistic and cultural resources which many old town centres are rich in, in other words, with a unique, urban landscape context. The aim was to make town centres work as open-air shopping centres,[11] like real shopping centres in their own right. The key to success for companies is gaining an insight, not into the large modern distribution but into the specialisation in which they are deficient, such as non-retractable offers in the surrounding areas and those which respond to specific commercial strategies with an accurate support service (Porto 2016). In Italy, we have the examples of Milan city centre and Verona as defined by Bullado (2007a) as a "jewel box", Florence, Parma, Macerata, Cesena as well as some in the south amongst which is Catania (Cirelli and Nicosia 2013).

12.5   The Last Decade: The Effects of the Crisis, Phenomena of Resilience

The economic crisis, which between 2007 and 2009 changed the socio-economic layout of advanced capitalism on a global scale, in Italy even had different commercial areas and urban spaces, whether they were central or suburban, having an influence on the consumer models of the population. According to data from the last report by Confesercenti (Meo 2017), in Italy an average of four shops close every hour and 90 close per day, equalling 2700 shops per month which means that almost 28% of the commercial businesses that opened at the beginning of the noughties have closed within 3 years, 43% of those are registered on the Chamber of Commerce register (ibidem).

In the presence of the sudden transformations of the sector, Italian geographers' thinking finally broadened horizons to reflect on the aim of systematising the

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[11] The Open-Air Shopping Centre should be understood as a network system of small companies founded on a self-organisation dynamic and on purely horizontal hierarchies (thus being different from organised commercial systems in that it is a product of unitary direction which manages the system via a commonly hierarchical relationship model (Nicosia 2008).

ongoing changes via a theoretical re-conceptualisation which relied on empirical and research studies in the field in the majority of cases.

Actually, the recession is often considered in analysis as a highly significant watershed, upon which the successes of the surveys in volume 15 of the Geotema 2016 were unravelled, distinctly entitled "Le nuove geografie del consumo tra crisi e resilienza" (The new consumer geography between crisis and resilience). As highlighted by the curator, Caterina Cirelli:

> The 2008 economic recession has questioned the pillars upon which advanced capitalism rested, dragging not only the trade sector into the crisis, but also urban spaces – both central and remote – which places of sale insist on. Yet, despite the consequences of the economic crisis, many urban policies still continue to create strategies to attract external capital and stimulate internal resources through urban restyling and urban regeneration instruments which are inspired by retail marketing and/or ICT (Cirelli 2016, p. 5).

It is clear in the recent works by Faravelli and Clerici (2013) and Clerici (2016, 2017) that the crisis is not just a media refrain, but a grey interpretation of the ongoing phenomena. In the most recent analyses on the metropolitan areas in the centre and north of Italy, the reciprocal relationships between liberalisation of commerce which began in 1998, the subsequent transformations of the sector and, of course, the effects of the economic crisis, which are also reflected by the set-up of urban spaces that points of sale insist on are all being researched.

On the one hand, the recession engulfed commerce in the central areas, especially in the old parts of town centres, where low-cost goods and services companies with a low added value as well as local shops underwent a considerable decrease in the volume of business which lead to closure. The subsequent commercial impoverishment of many central urban spaces is confirmed by the latest data provided by Confcommercio. Contributing to feeding this trend is not so much the competition with suburban shopping centres which are often accused of having "stolen" clients from the old city centres, but mostly due to the difficulties to obtaining bank credit and the increase in rent payments, which are always more expensive for local commerce, and in contrast, accessible for the big international chains.

Therefore, the central trade panorama is more moulded by fast fashion, which often declines through the franchising formula, the territorial implications of which have been researched by Mercatanti (2016). On the one hand, franchising is a format which safeguards the "survival" of many central areas, reduced to decay from commercial desertification, but at the same time approved via an offer and an urban fantasy that is now on all the high streets across the world (Porto 2016).

In order to avoid this approval, urban policies have been orientated towards strengthening "alternative" consumption practices and models in many contexts: from gourmet restaurants to street food, from creative handicrafts to multifunctional social spaces, a diverse galaxy of consumer experiences is mobilised to avoid the commercial offer, which is often centred around "districts" of commerce or in shopping centres, becoming flattened (Cirelli and Nicosia 2013; Graziano 2014). However, these are processes that do not always have the desired effects, whether perhaps they are due to failures, as highlighted by D'Alessandro in some medium-sized towns in the country (2011), or for processes aligned with retail gentrification,

which adapts commercial landscapes to the specific target audience of gentrifiers/
visionaries, marginalising the traditional local commerce and the respective local
customers (cf. Faravelli and Clerici 2011, 2013; Graziano 2013a, b, 2015; Memoli
et al. 2015). In addition, the urban regeneration processes are often marked by a
growing commercialisation of public space which is actually linked to the consump-
tion of food and drinks that, if on the one hand contributes to favouring new ways of
urban co-existence, on the other hand it can spark competition for using and access-
ing roads and squares due to a progressive break down of public space: this is an
issue that was empirically demonstrated by Loda et al. (2011) and by Aru (2016) in
their surveys on the diffusion of the dehors in Florence and Cagliari.

On the other hand, even the commercial types that were often understood to be
retail competitors in central areas, namely suburban shopping centres, they are start-
ing to pursue the descending phase of their evolutionary trend in some territorial
contexts in Italy. Saturation is one of the main reasons why this occurs, due to a
surplus of supply, centralised in congested places where it is hard to distinguish one
from the other. There is also more prevalent knowledge regarding the environmen-
tal, social and economic impact arising from commercial gigantism, primarily in
terms of taking up land and congesting areas that were previously not built on, but
also regarding the actual balance between new job positions and those lost in shop-
ping centres nearby or in the old parts of town centres.

The resizing of the role of hypermarkets in the distributive context of mass retail-
ing has also had an impact; they are no longer a driving force behind the develop-
ment of shopping centres which now rely more on the brands in the shopping
galleries, specifically those with more appeal (such as Apple or Disney), or on res-
taurants of added services supporting visits or entertainment (babysitting, sports
facilities, etc.) (cf. Cirelli et al. 2015).

Not even Italy has escaped the "deadmall phenomenon", in other words shop-
ping centres that are abandoned, some of which involved in remalling and/or
demalling projects, or reuse, integration, redevelopment and substitution, so much
so that the demalling.com platform, created in collaboration with the URB&COM
laboratory at the Milan Polytechnic, has mapped out 22 deadmalls and ghostboxes
throughout the peninsula. This is a phenomenon that gives important geographic
food for thought due to the territorial effects that ensue which were not explored by
chance in different territorial contexts in the country, like in the area between the
outskirts of the north of Naples, Basso Casertano and il Nolano researched by
D'Alessandro et al. (2016), where

> At almost 40 years since the first commercial localisations, now this area appears to be
> marked by clear episodes of commercial desertification which inevitably are quickly con-
> verted into urban decay and abandonment, in which traces of urban desertification can be
> identified (D'Alessandro et al. 2016, pp. 72–73).

As Cirelli (2016) remembers, some particular niches seem to have dealt with the
effects of the crisis better. Of these is the premium sector, which in 2017 showed a
5% increase on the previous year, equal to a 262-billion euro turnover (Worldwide
Market Monitor, Osservatorio Altagamma). From a territorial point of view, the

segment is manifested with the intertwined circulation of luxury brands in the main arteries of the cities and their competition to have the best shop window: this is a phenomenon investigated by D'Alessandro and Viganoni (2013) in Naples, whilst Nicosia (2016) gave us a fresco on a European level, lingering on the more famous Italian high streets, via dei Condotti in Rome and via Montenapoleone in Milan.

Besides the aforementioned franchising, the temporary shop format which is the resilient commercial model by excellence has spread throughout the country in both the old parts of town centres and in shopping centres on the outskirts, offering interesting reflections on the socio-territorial implications deriving from them, as researched by Mercatanti (2016).

Ultimately, Outlet Villages, which are actual little towns with discounted brands, combining an experience of open-air consumerism in "substitutes" for squares and streets with a quality commercial offer, have without a doubt resisted the crisis better than other models of consumer gigantism, such as hypermarkets or shopping centres. If the pioneering factory outlet in Saronno which opened in 1995 is excluded, the first Italian Factory Outlet Village was opened in Serravalle Scrivia in 2000 by the McArthurGlen group. Nowadays, the other 20 outlet villages scattered around the peninsula are geared towards buying experiences and integrated entertainment which come under *retailtainment*, the implications of which in terms of new consumer practices and the reconfiguration of the relationships between urban, suburban and rural areas, have been widely researched by Italian geographers, from which was the pioneering work by Miani (2006), as well as more recent works from Rabbiosi (2013) and Graziano and Nicosia (2013).

As has already been seen, the consumer practices promoted in the outlet centres intertwined with new tourist models that came into the context of shopping tourism. According to the 2017 edition of the Shopping Tourism Italian Monitor, carried out by Risposte Turismo in collaboration with Confturismo-Confcommercio, for 1.5 million tourists each year, the main reason behind travelling to certain Italian cities is due to shopping (Cirelli and Graziano 2015; Rabbiosi 2018).

The latest trend, within which on the one hand central localisation and on the other hand the commercial gigantism that is typical of rural formats converged, are the town shopping centres, such as the CityLife shopping district, opened in November 2017 in Milan, the biggest of its kind in Italy. These are all localisation strategies that, besides bringing commerce back to within urban perimeters, they aim to differentiate from the consumer experience, not only with regards "traditional" or local shopping centres where the relationship established with them is that of a complementary one, but also regarding the most feared competitor: e-commerce.

Even at the end of the noughties, Mercatanti (2008) highlighted the relevance of the digitalisation of the buying process due to the specific implications on places since, far from being confined to the virtual domain, e-commerce has close interdependency with different areas. However, the author does highlight the current gap in Italy in terms of digitalisation of commerce, be it regarding supply or demand. A decade after the Italian panorama was completely transformed, marked by an increasing digitalisation of the purchasing experience. The internet has clearly

modified buying practices, though the strategic dimension of actual shops has not been lessened: they can even take advantage of the integration of different exhibition methods and online and offline sales, as happened in smart retail, the territorial implications of which have been explored on a geographic level in the aforementioned special issue of Geotema (Graziano 2016).

Far from being confined to the traditional debates in which there was a predisposition towards reflections on commerce (centre/suburbs; real/virtual), the stance of Italian geographers has orientated analysis towards overcoming Manichean interpretations, as seen during the 32nd Italian Geographic Congress (2017), where the session named *Oltre la "new retail geography": teorie, politiche e pratiche dei luoghi di commercio in città* (Beyond new retail geography: theories, policies and practices of trade places in cities), coordinated by D'Alessandro, Nicosia and Porto, was completely devoted to commerce.

12.6 Conclusions

As the par-excellence place of exchanges, cities are articulated via an urban structure and a network of socio-economic and cultural relationships that are tightly anchored to the dense weave of places of commerce or consumption, which define the pace and mould the peculiarities through which the entire urban imagery is based upon.

The transformations that the urban layouts invest in their spatial totality indent on the widest contexts of changes since the coming of post-industrial society, from the so-called "sign-and-symbol capitalism", the new spatial, social, economic and cultural configurations created by the ongoing globalisation and thus, from its implications on the practical materiality and the experiences of places.

The economic recession spread on a global scale in 2008, firstly in the financial sector, then institutionally and finally, in the social sphere, rocked the foundations upon which the dogmatic convictions regarding advanced capitalism had relied upon for years, forcing the forms of development in different socio-economic sectors to be restructured, including that of the commercial sector.

The commercial panorama in Italy has not been immune from these changes. If some commercial phenomena have undergone acceleration processes, others, which are often identified by low cost and low added value services, are experiencing a reduction in the types of consumption, whether it be of goods and products rather than places and spaces.

As seen in the previous paragraphs, the wide and comprehensive literature from Italian geographers on commerce has, on the one hand, cultivated insights and suggestions from both foreign geographic communities and other disciplines; but on the other hand, it has recreated an original and independent vision of the discipline, contributing to the progress of knowledge from both new theoretical conceptualisations and new empirical research techniques, through which it has demonstrated an intrinsic capacity towards geography: in other words, to read and

interpret the ongoing changes, understanding the mutual connections between places, spaces and consumers.

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Chapter 13
Mediterranean Borders and Diaspora

Vincenzo Guarrasi

Abstract "And So Europe Dehumanized Itself", the expression used by Toni Morrison regarding slavery, seems to have returned dramatically to current affairs. We seem to have plunged into a dystopian present in which the European Union, instead of governing the disruptive global migrations through appropriate policies, has expressed such nervousness – both at the popular and institutional levels – to give rise, in an unstoppable crescendo, to practices inspired by xenophobia and racism. It has led to the inhuman treatment of migrants (I refer both to shipwrecks at sea, a real massacre and to the torture and torture reserved for them in Libya with the complicity of European governments) and finally to the crisis of cohesion and solidarity between the countries of the union.

All this has led to a group of Palermo geographers, engaged for years in the study of cosmopolitan cities, to give a twist to their field of study and to thematize the problematic intertwining of Mediterranean frontiers and diasporas. The new action programme produced a manifesto (attached to this contribution) whose aim is to mobilize the national and international scientific community in order to develop new forms of geographical imagination (languages, models, practices) so as to overturn the lacerating current trends.

Keywords Metropolitan city · Mediterranean Sea · Border · Diaspora · European Union

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13.1 A Dystopia of the Present

The 11th September 2001 unveiled a new era in human history. The future has irrupted in the present and has taken history for granted. The description of an imaginary society and an undesirable community has been imposed on global public opinion as a reality. The attack on the Twin Towers has in fact destabilized the common sense of American and global citizens: something unheard of has happened – an attack on the territory of the only superpower still standing after the fall of the Berlin Wall – and it happened before all our own eyes. The whole world, or at least the majority, watched one of the most traumatic media episodes live: two skyscrapers that plummeted to the ground, knocked down by two aeroplanes that hit like bullets.

The reactions from world leaders, columnists from the mass media and public opinion itself as to what happened were split and inappropriate. A feeling of instability and uncertainty was palpable which was fed by the media and the rhetoric used by the political elite on a global scale. A catastrophic image of current society was imposed, which was littered with keywords such as "The West stabbed in the heart!" or "The war on terrorism", sustained and advocated by American leaders to call on those around them to launch their European peers and other allied leaders in the Arab world into a military operation.

The effects on this imaginary society were and are devastating: from then on, the predominant narrative has shown us a world in which terrorism is lingering in the background like a ghost, waiting to hit, how and when it wishes, defenceless communities which are unprepared to face an invisible enemy hiding in the dark corners of daily lives in cities around the world. There are two questions: Are we really sure that terrorism is all that it seems? And furthermore, is it reasonable to think that war is the most appropriate strategy for dealing with it? I actually think that as a result of the attack, but more so due to the global reactions that it provoked, they weaken the interpretative models of the contemporary world and its main geopolitical issues.

Since the Twin Towers in fact, we have had an unpleasant feeling and deep uneasiness which arises from, amongst other things, not being able to fully recognize ourselves in the predominant narratives. That is why I speak of "a dystopia of the present", and I really do mean it in its literal sense as "a description of an imaginary society and an undesirable community that has been *imposed* on global public opinion *as a reality*". I maintain that the main, urgent task for the global scientific community is that of deconstructing the predominant image and to try to construct a more coherent imagination in the joint sense which is more corresponding to what is happening around us.

First issue: in affirming that the West was stabbed in the heart by the terrorist attack does nothing more than feed the dualistic image of the world which is at the core of the delusional proclamations made by terrorist leaders, which actually reverses it. It is as if the world really was split into two – and hardly integrated and interdependent – between an evolved, modern West and the rest of the world (the whole of the Arab states being understood as the origin of the terrorist attacks) underdeveloped in terms of their economic and cultural profiles. The situation

obviously is not like this, and mechanically reiterating the terms of this juxtaposition does nothing more than pour oil on troubled waters.

The second issue is more relevant and not at all straightforward. Terrorism is not as we are told, and it cannot be faced down from a military standpoint as we are led to believe. The German philosopher Peter Sloterdijk helps us in this regard, when he reminds us that terrorism is a war tactic put in place by the great powers of advanced technology (let's think about the use of the atomic bomb in the past, e.g. or the use of drones nowadays) with the purpose of breaking the resistance of militarily weaker adversaries, but most of all, with the purpose of putting civilian resistance to the test. This is why terrorism cannot be conquered by war. It is nothing more than war in its most extreme sense. And in the same way that war creates hate and the need for revenge, terrorism does the same in uncontrollable ways.

In order to get reliable feedback on this outlook, we just have to look at the images of Dresden destroyed by the bombings during the Second World War, or the post-nuclear images of Hiroshima and Nagasaki, or even the photographs by Sebastiao Salgado[1] of "liberated" Kuwait and its wells in flames or, last but not least, the images that appear on our television screens of Aleppo, Mosul or Raqqa, "liberated" from the occupation by ISIS (Islamic State).

13.2 The Invention of Terrorism in the Twentieth Century, Wars and Global Crises

The last century has given the history of humanity something devastating, which consists of attacking the adversary by corrupting their living environment, perhaps irreversibly. The first instances of terrorism actually date back to the use of a toxic cloud by the German army during the First World War (in Ypres on 24th April, 1915). Terrorism cannot be conquered by war because it is not an enemy, but a mode of combat and war is its main growth medium (Sloterdijk 2015, pp. 82–83).

Incidentally, as Peter Sloterdijk observes: "every terrorist attack is understood as a counter-attack within a series which, each time, is described an initiation from the adversary" (2015, p. 98). The succession of events, however, appears to be significant: 1990–1991 First Gulf War; 7th October 2001: start of the war in Afghanistan characterized by operation *Enduring Freedom* and supported by the American government as a response to the terrorist attack on the Twin Towers and the Pentagon; and in the context of the *War on Terrorism*, there will be the second Gulf War in 2003.

We must not underestimate, however, within the argument that we are presenting here that the involvement of the American army not only has effects on geopolitical

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[1] I am referring to the exhibition by Sebastiao Salgado, *Kuwait. A desert in flames*, shown in Milan from 20th October 2017 until 28th January 2018.

and military aspects but also on strictly economic aspects. As the economist Innocenzo Cipolletta stated:

> The world has lived through two global crises which were separated by a brief interval: the petrol crisis of 1973 and the global financial crisis of 2008, which have sparked two difficult periods of recession all over the world. In both cases, the USA was and had been involved in the military plan with strong contingents – in the Vietnam War previously, in the international War on Terrorism later, and two active fronts in Afghanistan and Iraq. (2010, pp. XII–XIV)

The mechanisms and the American financial exposure which are determined by military expenditure and launched onto the world stage are clear, and they essentially consist of a notable increase in available funds on the international financial markets, thanks to the release of huge amounts of dollars (Cipolletta 2010, p. 9).

As Scott Anderson tells us in the report *Fractured Lands: How the Arab world Came Apart*, published in *The New York Times Magazine* on 14th August 2016, the process of destabilizing the countries in the north of Africa and in the Middle East, which was welcomed in Europe as the "Arab Spring", quickly turned into a political crisis first and then, in quick succession, a series of tragic, destructive regional wars, with direct or indirect, declared or undeclared involvement of a number of actors from global geopolitics:

> The emerging model is incredible. The majority of the twenty-two countries that compose the Arab world have been involved in the Arab Spring to a certain extent, but those that have been more deeply involved – Egypt, Iraq, Libya, Syria, Tunisia and Yemen – are all republics, not monarchies. And of these six, the three that have been fully disintegrated, calling into question whether or not they can still exist as functioning states – Iraq, Syria and Libya – are all members of that short list of Arab countries created by the imperial powers of the West at the beginning of the 20th century. (Anderson 2016, p. 5)

The dystopic scene, which has given context to our research itinerary in recent years, arises from the complex entanglement between globalization, financial crises and neoliberal policies; crisis of the national states and delegitimization of the sovereign authorities (see, e.g. the European Union); processes of liberation from dictatorships, economic and political destabilization and the emergence of new roles and hegemonies in a large area extensively coinciding with the whole of the Arab states; and an uncontrollable increase of the diaspora and international migrations with a high rate of political refugees, asylum seekers and environmental refugees from Africa and Asia, heading through either regulated routes or predominantly unregulated ones, towards Europe.

13.3   Cosmopolitan Look and Listening Geographies

The dizzying overlap of processes of crises and mutilations of economic balances, political assets and cultural dynamics in place has forced a research group – created in a regional context like Sicily, which is heavily exposed to the overflowing and often tragic incidents that, even from lands afar, are offloaded onto the

Mediterranean – to investigate about ethical and scientific positioning with regard to the phenomena to be analysed and the action strategies to be adopted. Before our own eyes was a film that was much more incredible that than the Twin Towers: a massacre of migrants in the ongoing shipwrecks taking place in the Mediterranean Sea.[2] What happened is that a group of students who gathered for a national research programme dedicated to "Cosmopolitan cities", on several occasions, has had to redefine both the method and the objectives of the research until they understood that the Mediterranean diaspora in progress (de Spuches 2011, pp. 102–119) constituted a true and very real epistemological challenge.

Showing a mutation under way on a global scale of the urban and territorial assets was the initial aim of this group of students. It was a large, organized group. A transnational research team coordinated by Ola Söderström had actually chosen Palermo to investigate on the entanglement between the cultural and urban dimensions of globalization processes. The *Urban Cosmographies: Research on Urban Change in Palermo* (2009) has proven how the Sicilian capital had in place a process that exposed the city to global flows of people, ideas and resources and made new landscapes and cosmopolitan urban schemes part of the spaces of its daily life. The actions on urban governance put in place by two administrations of the city from opposite sides (1992–2008) would be valued in light of the set of flows of mobility of people, knowledge and resources that the policies were able to intercept. Reading this dissertation and seeing the images that accompany it, anybody could form their own opinion on the efficacy of these policies, but they could not deny that from one or another, there is a new image of the city. Urban artefacts activate contrasting places and new identity positions that if they are a part of the chains of action that create them, they reveal the rhetoric which the different practices of urban governance and the cosmopolitan urban regimes are inspired by and linked to. The case in Palermo was then revalued by Söderstöm herself within a comparative framework on a global scale with other urban dynamics in Asian and African contexts.[3]

Another research experiment was developed in parallel which has provided a framework for comparison on a national scale, in this instance.[4] The composition of the research group has allowed for dynamics in place in different-sized cities to be focused on, from the big cities to the smaller ones, located in the north (Venice and

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[2] Since 1988, along the borders of Europe, at least 27,382 people have died, of which 4273 died in 2015 alone and 3507 in 2014. The data was updated on 2nd February 2016 and is based on the news reported by the international press. All the documentation can be consulted by visiting *Fortress Europe*, a website by Gabriele Del Grande. Another essential source for following the developments of the events is the ADIF Association Blog (the Association for Rights and Borders).

[3] A recent exhibition entitled *Cosmopolis. Explorer la mondialisation des villes.* Exploring globalizing cities (16th June to 10th September 2011) organized by the University of Neuchatel was dedicated to research conducted between 2007 and 2011 on the ongoing transformations in Palermo, Hanoi and Ouagadougou.

[4] It is a national research programme entitled "The cosmopolitan city. Areas of contact, flows, geography" cofinanced by the Ministry of Education, Universities and Research in 2007 (national coordinator: Vincenzo Guarrasi).

Trieste), the centre (Bologna and Pisa) and the south of Italy (Palermo and Bari). Therefore, just how widespread and detailed the mutation is in our country was able to be verified. An innovative methodology based on the surveys and active listening practices has allowed different urban contexts to be explored in the most intimate corners of daily life and to evaluate how deep the degree of involvement of the people and the places surveyed in a transition process was which involved the local and the global, at the limit between public space and private space. Opening up to other disciplinary experiments, the group from Palermo reached the understanding of how traumatic and disorientating the transition was and how unavoidable the need was to adopt an innovative research strategy. The Mediterranean diaspora therefore is imposed as the backbone of the research experiment and its printed products[5] and as a theme focuses on two events which, as we will see, were decided upon to bring to life the emblem of *the cosmopolitan city*.[6]

Spatial and time compression (Harvey 1993) had produced urban and territorial contexts the profile of which couldn't be described without adopting a "cosmopolitan look" (Beck 2005). Without bringing the "methodological nationalism" into the discussion which is, so to speak, congenital to social and territorial sciences and which consists of considering every socio-spatial natured event within the horizon made up of the single national states and their borders. During the research, the group from Palermo became convinced that, rather than exposing urban landscapes to a cosmopolitan look, a more appropriate strategy would be to impose the need to survey the methodological opportunities offered by "listening geographies" (Guarrasi 2011, pp. 46–59; Nancy 2004). Proceeding then by surveys, exploring what Clifford calls "contact zones" (1999) and trying to build "listening places", situations and contexts, which is, where the autobiographical narrative was is made possible from the interaction between the interviewer and the interviewee.[7] The lives lived by the migrants found throughout the survey was so intense and involved with suffering that any type of generalization or abstraction was not advisable. The value of each human existence, which arose from the interviews, was such that it was seen as something singular and not able to overlap other experiences. The

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[5] Essays from Lorena Scarcella, Desiré Musumeci and Giulia Veca can be seen, for example, in the first volume entitled *La città cosmopolita. Geografie dell'ascolto* (Guarrasi 2011) and from Giulia de Spuches, Alessandra Di Maio, Manuela Lino and Angela Alaimo in the second volume entitled *La città cosmopolita. Altre narrazioni* (de Spuches 2011) and the video from the author entitled *Il cacciatore di Piume*, filmed and narrated by Yousif Latif Jaralla, attached.

[6] In 2008 and 2009, the Faculty of Arts at the University of Palermo (chaired by myself from 2007 to 2010) joined an event entitled *Notte dell'intercultura e del dialogo*, which took place simultaneously across many cities of the Mediterranean Basin. The two editions are from Palermo with art direction, thanks to the passion of Gigi Garofalo and Daria Settineri. I would like to highlight the fact that the city of Palermo has made use of this and other experiments, as is evident from the success of the current Migrant Literature Festival (*Festival delle letterature migranti*).

[7] The most effective example of this methodological choice can be found in Rapsodia in K by Desiré Musumeci (2011) where she tells how a particular empathy between the interviewer and the interviewee gave rise to a poignant autobiographical narrative.

Mediterranean diaspora itself, by a mass exodus, was diversified and cut jaggedly into a variety and range of subjective experiences.

13.4 The Ethics of the Research in the Face of Singular Events and Subjects

Putting listening geographies into practice thus gathered the sense of measuring oneself against collective phenomena as well as with horizons of specific, singular events (Guarrasi 2014). All this even led us to accept, with regard to the field of research and the seriousness of the experiences that we bore witness to, an attitude that was inspired by the evocative phrase by Michel Foucault "human suffering must never be a mute reminder of politics" (2009) and to make our action programme enunciated by the French thinker:

> We are nothing more than individuals that talk, doing so together, solely for a specific common difficulty to deal with what happens. (2009, p. 235)

A new confrontation strategy with governments and institutions was therefore imposed based on three simple principles of action:

- There are international citizens that have their rights, their duties and who are obliged to rebel against any abuse of power, whoever instigates it and whoever is a victim of it.
- It is the duty of these international citizens to always claim their rights over human suffering to the eyes and ears of the governments, since it is not true that they are not responsible for it. Human suffering must never be a mute remainder of politics. It is the foundation of an absolute right to revolt against who holds the power.
- We need to refuse the division of the tasks that is often proposed to us: for the individuals to show indignation and to speak to the governments and to act. The will of individuals must be elaborated in a reality where the governments have wanted to have full control, which needs to be eradicated little by little, day by day (Foucault 2009, pp. 236–237).

The research group was becoming more aware of the fact that without ethics and a coherent political position, it would not be possible to resist the policies put in place by the European Union and its individual states and the rhetoric contained within them. In our heads we made way for the conviction that in this work of resistance, we were not alone but around us was a constant band of intellectual critics, clearly deployed in favour of migrants, asylum seekers and political refugees. The silence was broken by Giovanni Maria Bellu, a correspondent from *La Repubblica*. His book, *I fantasmi di Portopalo* (2004), had actually shed a complex light on a matter on which on the contrary would have been kept quiet due to the collusion of so many. The tragedy took place on the night of Christmas in 1996, but the media echo was not heard until 2004, thanks to the courageous inquiry by the journalist from La Repubblica, showing the fearful entanglement between a dramatic matter and the banality of the demands of daily life, between the collective dimension of the event and the upsetting singularity of finding the laminated ID card of Anpalagan Ganeshu.

The story of the shipwreck off Sicily also focused the attention on the value in society of current investigative journalism. Regarding the searching and digging activity that alone could avoid the silence and oblivion, the removal of so many existences is mutilated by the experience of expatriation and exile. For this reason, I think it is important to highlight that on this island, touched by a human tragedy of this scale, it was not all viewed with dismay and silent habituation, but for a time, significant intellectual energy has been put in place in order to study and to understand the phenomenon. A group of Sicilian students has actually been grappling with an interdisciplinary confrontation whose field of study and observation about the obvious friction of the borders with the migration phenomenon are the difficult relationship between globalization, human rights and state policies.

13.5 The Massacre of the Mediterranean as a Horizon of the Events

The European policies regarding migrants, political refugees and asylum seekers depict a tragic panorama of events around us. Each of them, in the trickle of succession, deserves to be dealt with for the value that it has within, but the series takes on a relevance which prompts for the most meaningful word "massacre" to be used, and it tends to take on the connotations of a true, real crime against humanity.

Facing a massacre of such a scale[8], the task of thinking about the event is very difficult. As Alain Badiou suggests, in fact, thinking about an event involves three options: dealing with the choice, the distance and the exception. It therefore means becoming clear on the main choices of the thought, the distance between the thought and the power and the value of the event:

> I sustain that a philosophical concept, in the sense understood by Deleuze, therefore like a creation, is always something that links a problem of choice (decision), a problem of distance (divide) and a problem of exception (event). The deepest philosophical concepts tell us: if you want your life to have sense, then you must take hold of the event, keep your distance from the power, be adamant in your decisions. (Badiou 2012, p. 11)

Thinking in this way about the event – and the place – constitutes a challenge both for philosophical thought and geographic research insomuch as it involves the need to make a breakthrough in the regime of consolidated thought and face a paradoxical situation. The key element, which I am pushed to highlight, is that critical thought is actually activated when it is in the presence of a paradoxical relationship, in other words, a relationship that is not as such. Being able to think about both the drama of the shipwreck and the banality of daily life isn't so simple, nor is it natural,

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[8] In the shipwreck on 18th April 2015, the most serious to make the headlines, from the postwar period in the Western Mediterranean, at least 700 people perished. 368 died in the shipwreck off Lampedusa, another 400 on 12th April 2015. It is estimated that from 1st January to 20th April 2017, some 29,000 people arrived to the coasts of Europe, and another 663 died during the journey.

because there literally is a sea that separates the two, a sea which nowadays acts as a border.

The research group became convinced early on that such an ambitious project as that of thinking in original ways about an event, which was repeated with obsessive frequency before the eyes of everybody (and to the indifference of many), could not be carried out within the tight arena of scientific communication. In order to work on this breakthrough, we needed to work with a wider public. That is why the research programme had begun with two editions (2006 and 2007) of an event, as we have seen, called the cosmopolitan city, where the moments of scientific debate, the surveys of "areas of contact" and public manifestations including shows, music and art performance were all bound together.

13.6   And so Europe Dehumanized Itself: Art Performance and International Convention

In 2014, an art performance once again triggered a new stage of the research. This time the initiative was taken on by Giulia de Spuches who decided to organize an open event for a public who were not involved in the work. She put on a show with actors, musicians and a singer under the title "And So Europe Dehumanized Itself". [9] The effectiveness of the show was based on reading truly dramatic pages from Toni Morrison's Beloved (1987), thus creating an emotional and intellectual connection between the tragedy of slavery and the disturbing destination that European policies expose the migrants to. In both cases, exercising power is so violent and transgressive for compromising humanity not only for the person suffering but also for the person who implements it.

The scientific point continued in November 2015, and it was brought together by way of a call for action, in the knowledge that the words of the scientific discourse were no longer enough to oppose resistance to the wave of advanced xenophobia and nationalism and more decisive conflictive actions had to be put in place. The participants made an effort to create new language and new practices, in the knowledge of the fact that the scientific and political commitment in place in previous years did not grab public opinion any more, overwhelmed by cruder words, but definitely more persuasive. The group of geographers from Palermo,[10] who had promoted the initiative, gathered what arose from the discussion and gave shape to the manifesto (which is attached) and which was reintroduced during the 32nd Geographical Congress in Rome (7–10th June 2017) in the session "The

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[9] The reading performances had two replicas, both in Palermo: the first at the Zisa Cultural Sites and the second at bar Moltivolti. Alongside Spurches' performance, Irene Ientile, Filippo Luna and Lucina Marchese, who signed the texts, also appeared on stage.

[10] It is Giulia de Spuches, Francesca Genduso, Chiara Giubilaro, Vincenzo Guarrasi, Laura Lo Presti and Marco Picone.

Mediterranean: for a critical border geography" coordinated by C. Brambilla, A. Casaglia, R. Coletti, P. Cuttitta, G. de Spuches and V. Guarrasi.

13.7 The "Arab Spring" and the Regional Wars as a Backdrop to the Mediterranean Diaspora

Nowadays it is not possible to define a critical discourse in geographic terms about the Mediterranean as a border, if how much the geopolitical and humanitarian dynamics of the region becoming the most complex way from the so-called Arab Spring is not taken into account.

In this case too, I believe it is necessary to start from something that happened. As we read in *Preludio alla rivoluzione dove tutto è cominciato* by Manuel Castells:

> IT began in the most unlikely of places: Sidi Bouzid, one woman of 40,000 people in an impoverished central region of Tunisia, to the south of Tunis: The name of Mohamed Bouazizi, 26 years old, a peddler, is now written in history as the person who changed the destiny of the Arab world. The self-immolation of Mohamed Bouazizi, who exploded around 11:30am on 17th December 2010 in front of the headquarters of a government office, was his last outcry in protest against the humiliation of the repeated confiscation of his fruit and vegetable stall by the local police after he refused to pay a bribe. This last confiscation would have taken place on that exact day, one hour before. (…) Mohamed Bouazizi died on 3rd January 2011 in the hospital in Tunis, where the dictator Ben Ali had ordered him to be sent to sooth the angry crowd. (2012, pp. 2–3)

From there, within the maze of individual stories and collective dramas, a fire began which is very far from being put out. Two moments need to be kept together: individual and collective. If they are separated, all is lost, be it the whole or the decisive decision. Yes, because every human destiny designs a whole universe along its path. Scott Anderson is highly aware of it in his publication *Fractured Lands: How the Arab World Came Apart*, when he chooses to tell a story about wars, exoduses and unheard violence through the stories of six people that have been witnesses and protagonists since everything started in Sidi Bouzid:

> All six are from different regions, different cities, different tribes, different families, but, together with millions of other people in the Middle East, they share a deep experience of decay: their lives have been changed forever due to the upheavals that took place in 2003 with the American invasion of Iraq, and then accelerated by a series or revolutions and insurrections which are known as the Arab Spring in the West. Nowadays they are still threatened by the Islamic State, with terrorist attacks and failed states. (2016, p. 3)

After a series of occurrences by a military and terrorist setup called IS (Islamic State), their attainment of cities and territories, after months of imposition on local people of an authoritarian and violent power, at the time of writing, their terror can be seen on the fields of combat. The geopolitical and military matter, as well as the economic and social issue, is still underway, and I do not dare to imagine the possible outcomes or reconstruct the key areas. The description itself of every event in the series cannot actually be anything but partial and subjective given that too many

parties are involved and each of them has a different perspective or a rival narrative. In geopolitical aspects, it is difficult to distinguish the heroes from the villains and the victims from the executioners. One thing that is clear to me is that we are not witnessing anything that looks like a "clash of civilizations", and the victims are the ones that die (to whatever deployment they may belong), the ones that are fleeing their homes and their cities and the ones that leave behind communities, territories and environments that have been destroyed and going up against risky conditions with extreme vulnerability in unwelcoming lands and seas.

13.8   The European Agreements with Turkey and Libya

With the purpose of stopping the influx of migrants to the Greek coasts, European leaders created an agreement with the Turkish government in March 2016. The agreement sets out, amongst other factors, rejecting irregular migrants; the creation of humanitarian channels to allow for the transfer from Turkey to the European Union of Syrians seeking asylum (with a one-in-one-out system: for each irregular migrant rejected, one exile from Syria is accepted); the liberalization of the visas for Turkish citizens plus economic aid for Turkey (up to a maximum of 3 billion euros before the end of 2018); and the opening of new options for Turkey joining the EU. The paradox is that one of the motivations adopted to create the agreement is the aim to carrying out "a provisional, special measure required *to put an end to human suffering* (my italics) and restore public order".

Italy and Libya signed a bilateral cooperation agreement in February 2017 with the purpose of closing the Central Mediterranean route with the participation of Libya. The agreement was signed in Rome after a visit to Tripoli by the Italian Home Secretary, Marco Minniti. The old friendship and cooperation agreement which was signed in 2008 between Silvio Berlusconi and Muhammad Gheddafi were renewed, which set out, amongst other things, to definitively close the colonial dispute, with a payment being made by Italy of 5 billion dollars. The agreement proceeds on the premise that the fight against migrant trafficking is combated by stabilizing Libya, with European and bilateral cooperation and with an increase of Libya's capacity to control its own land borders in the south of the country, as well as their sea borders.

The European governments recognize the efficacy of such an agreement with the aim of reducing the number of migrants arriving from the Central Mediterranean. The same European authorities, however, appear to be completely indifferent with regard to the appeals from the UN that they should take care of the migrants and the repeated, dramatic reports from the NGOs working on Libyan soil about the living conditions of the migrants stuck on African territory. The voices of human trafficker infiltrations are all the more insistent in Libyan institutions such as the coast guard and the detention centres.

13.9   The Affirmation of Nationalist Forces in Europe

The European Union is at risk of falling apart due to the outbreaks of souverainism, nationalism and the rejection of migrants, asylum seekers and political refugees (and environmental refugees). The first to sway was the free movement of citizens across Europe which was set out in the Schengen Convention. The clearest, strongest sign however, has been Brexit, in other words, the majority of voters in the United Kingdom (51.89%) that voted in favour of the choice to leave the European Union on 23rd June 2016. The electoral affirmation of far-right nationalist and openly xenophobic forces is also worrying, which include the Front National in France and the three extremist German movements (Republikaner, Npd and Dvu) or Haider's Fpo in Austria or for a liveable Netherlands and the Danish People's Party in Northern Europe, or in countries in Eastern Europe, where the xenophobic positions of governments and heads of state are highlighted, for example, in Poland and Hungary. What is also as worrying is the shift in nationalistic and xenophobic positions in centre-wing formations, as has happened in the recent Austrian elections with the affirmation of Sebastian Kurz's People's Party (Oevp).[11]

If the Mediterranean Sea is looked at in a mirror, it shows images of wars and devastation from the south and east and to the north, in Europe, there is political fragmentation and cultural dissonances which were completely unthinkable and unforeseeable a few years ago. National and supranational governments (the EU) are closed in on themselves and are only worried about their own survival. This all leads us to believe, and quite fairly so, that none of the dystopic dynamics under way could be resolved in any way without holistically intervening in the unhealthy relationship between this sea and these lands. The fluidity of the sea is actually ill-suited to supporting the role of a border between worlds whose plot is based on contacts, exchanges and cooperation.

13.10   New Research Perspective: The Cultural Turn in the Studies on Mediterranean Migration

In a space which is tending to establish a new configuration of the power and the *state of exception* (Agamben 2003), it produces legal vacuums, interruptions of the paradoxically legalized law and the extreme precarity of those moving between migrations, exiles and diaspora; frontiers and borders are the paradoxical places where research has been called upon to deal with it. And the answer cannot be radical: it must reach the foundations of the relationship between people, spaces and movements (Giubilaro 2016). If we are called upon to act to subvert this state of

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[11] Even if it falls out of this dissertation which is focused on the relationship between Europe and the Mediterranean, the election of Donald Trump as the 45th President of the United States is not reassuring whatsoever.

affairs and avoid the dystopia of the present, we cannot limit ourselves to verify that the limit works as a method, in other words, it produces and reproduces the multiplication of the work in the global world (Mezzadra and Neilson 2014); we need to try to build some imaginary spaces that are different to those which dominate and the systems that generate it and reiterate it day after day. To that end, the group of geographers working in Palermo has considered mobilizing the most innovative resources of a discourse which is inspired by cultural geography and cultural studies more in general.

In order to interrupt a spiral that exposes those moving and in intolerable conditions of risk and vulnerability, which produces political instability, war and devastation in the Arab world, which prompts nationalism, disintegrations and divergence in Europe, it isn't enough to put in place policies that are inspired by security or that appeal to civil welcoming and cohabitation. We must get to the root of this spatial issue and ask ourselves which are the terms of the relationships between people, spaces and movement in society nowadays.

Working from the notion of "diaspora" (de Spuches 2012) and "bare uniqueness" (Guarrasi 2014), theoretical research has gone in two directions suggested by the most innovative currents of cultural studies: questioning ourselves about the potential of the so-called mobility turn (Cresswell 2006) and from the visual studies explored systematically with the doctorate on European Cultural Studies at the University of Palermo.[12] The relationship between aesthetics and politics has been investigated on a wide spectrum of needs, from photography (Giubilaro 2016, 2018) to map theories and practices (Lo Presti 2017). Meanwhile, diasporic and border studies have been combined with the themes and outlooks suggested by the postcolonial studies (Genduso 2017; Proglio 2016).

13.11 Concluding Remarks

The Mediterranean poses an epistemological issue for European consciousness. In our research experience, this is revealed as such because it goes to the heart of our thoughts and feelings. It is European thoughts and feelings, I mean, but not only because of that. This resonates in our own bodies – and here I really do mean our own, those of the small research groups that thought they could live with such a decisive issue – because it has placed us before such radical questions that eat away at the roots of the possibility to recognize ourselves in the prevailing cultural trends and in the forms of identity professed even in our work and life environments.

> True life is not lived in a false way" said Adorno in *Minima Moralia*. And Judith Butler, after having acknowledged that this phrase sounds different depending on the times in history when it was uttered, affirms: "… from the beginning we have to face two problems: the first consists of asking ourselves how we can live our lives well, insomuch as to be able to

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[12] The three youngest writers of the Manifesto, Chiara Giubilaro, Francesca Genduso and Laura Lo Presti, have achieved the title of doctor from the doctorate degree.

argue that living a good life in a world in which the good life is structurally and systematically inaccessible for many people. The second problem consists of identifying what role this matter may have for us nowadays; in other words, understanding how the historical period in which we live conditions and pervades the role of the issue. (Butler 2013, pp. 13–14)

We have tried to translate these questions into other patterns on the relationship between Europe and the Mediterranean. Three questions arose, which I consider are still inexhaustive and which are as follows:

- Can the geographer's knowledge evade the loop of the border?
- Which hierarchy of humans lies behind the policies and rhetoric on migrations?
- Can the discourse on migrants lie behind the violence of criminalization as well as humanitarian solidarity?

The answer to the first question is no, not in Europe. This is for an obvious reason: the response does not require intellectual action, which is a brave, but rather shared political action. And Europe, as we have seen, is going in a completely different direction. To the second question, the answer is none, given that it is unthinkable if it is not in an anachronism and unacceptable racial and/or nationalistic tone. But even in this instance, we are shocked to see that Europe is going in another direction. Last but not least, the third question is the most dangerous, because it is based on systems of practice, which are not in agreement, but based on the same premises: those that live in the single states of Europe feel at home and are able to therefore open and close the access to others, how and when they want.

Nonetheless, the questions were not rhetorical. Therefore, we have reintroduced the 22nd session of the 32nd Italian Geographic Congress which was dedicated to the theme "The Mediterranean: for a critical geographer of borders". We were confronted by Italian and foreign colleagues within a widely shared theoretical framework and which led us to look at the Mediterranean as a border scape and to analyse the delocalization trends of borders and the dynamics of externalization and internalization under way in managing Mediterranean migrations.[13]

What point is this series of questions up to nowadays? I fear that we have not moved from the starting point, but not due to ignorance or lack of willingness. But rather because the truth cannot be told nowadays in Europe – as the tragic life and death experiences of Ilaria Alpi, Tullio Regeni or Daphne Caruana Galizia showed – too many links engulf the Mediterranean in a network of violence, complications and collusions. This will not stop us, however, from continuing to explore the intimate withdrawals of this world and to try to put the language of truth into practice.

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[13] The themes dealt with will be made partly public in the Acts of the Italian Geographical Congress which is being printed. I would like to highlight, by the way, that one of the most evocative readings about the Mediterranean, during that meeting, was made by Alessandra Bonazzi when she spoke about the Mediterranean as an interference regarding the immanence plan of the capital. Interference is both inside and outside, between exchanges of goods and the shape of national states.

Annex[14]: Manifesto

And so Europe Dehumanized Itself

Introduction

How does one lead a good life in a bad life? We have two problems: the first is how to live one's own life well, such that we might say that we are living a good life within a world in which the good life is structurally or systematically foreclosed for so many. The second problem is what form does this question take for us now?

Judith Butler's incipit for the *Adorno Prize Lecture* poses the key question of the most recent history of the Mediterranean. Are we still able to consider it as a migratory phenomenon involving Europe? And can Europe honestly state it is no longer adopting emergency policies, after several decades?

Between the end of the twentieth and the beginning of the twenty-first century, the Mediterranean has turned into both a transit zone and a border zone, where Schmitt's ideas of a space of *nomos*, order and localization seem to fall on hard times and then finally into the space of a liquidable humanity. Within this event horizon, the dehumanization of Europe can be measured.

This manifesto finds its location in the Mediterranean and in the events impressed over several decades on its surfaces and bottoms. Here, the regimes of mobility control enacted by the so-called Fortress Europe are challenged everyday by the bodies of those women and men who stubbornly try to resist them. Here, the border unveils the differential and violent nature of its very functioning, ceaselessly reproducing silent cuts between desired and undesired mobilities, economic migrants and political refugees, livable lives and ungrievable deaths.

Positionings

The *call for actions* of the Palermo conference[15] aims at reflecting on the *status quo* of the Mediterranean issue and adopting a resistant positioning towards the rhetoric proposed by the nation-states and the EU.

Within the European policies on the migrants, within the continuous proliferation of highly nationalized discourses and within the "securing" of the borders and the widespread feeling of extremely racist ideas lie the traces of a process of

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[14]This annex was previously published by Vincenzo Guarrasi (2019): Frontiere e diaspore mediterranee, *Dialoghi Mediterranei*, 36. http://www.istitutoeuroarabo.it/DM/frontiere-e-diaspore%20mediterranee/ Accessed 25 February 2020.

[15]A 2 days' conference was held in Palermo on the 10th and 11th of November 2015, and its title was *And So Europe Dehumanized Itself. Mediterranean Geographies in Action*. The title of the conference and of the manifesto is taken from Paul Gilroy's interview to Toni Morrison (1993). See https://www.academia.edu/14524762/And_So_Europe_Dehumanized_Itself._Mediterranean _Geographies_in_Action.

dehumanization which is far from reaching its conclusion, feeding on that same modernity which stems from colonialism and still persists in the *colonialidad del poder* (Quijano 1992).

We should not forget that civilization and dehumanization can be considered the aspects of the process of conquest and cultural imposition committed by Europe and the *Western episteme* (Spivak 1999) against the rest of the world. The creation of an imaginary in which the "we" could act as a positive pole, as opposed to the "others", has led to a new and ruthless hierarchization of the humankind. Through this process of material, economic and cultural subjugation, Europe has gradually dehumanized itself, losing sight of those human values in whose name it has always promoted and still promotes new war scenarios. Understanding how the relationship between "us" and the "others" is structured could serve as an epistemological tool to interpret the complexity of the present and to analyse current issues and ideological positions with a long-term perspective, aiming to grasp the continuities and discontinuities with the past. Therefore, the attempt to read our own times in the light of the colonial past can unveil the postcolonial condition of the Mediterranean space.

In the European policies, the construction of the Mediterranean as a border implies the sliding of the responsibilities of territorial control, because it mixes up the authority of the nation-states, the European directives and the financialization of risk management. There are persons getting caught on these tangles of control, and it is these persons that must be listened to; it is these geographies that must be written.

The events happening in the Mediterranean today contain a decisive call to our responsibility that is our capability to build up political and cultural responses aimed at radically questioning the unacceptable conditions the European governments have arranged at different scales – local, regional, national and transnational.

Moving from these events and their violent geometries of power, we intend to give rise to a collective discourse, which must be both antiestablishment and productive at the same time and must keep critical force and creative impulse together.

Languages

In order to let emerge the complex architecture where migratory regimes take shape, it is necessary to make the different languages which give meaning to them resonate and collide, both in theory and in practice. It is a de-assembly and reassembly of words, images and voices to transcode and to decipher, to diagnose and to reconfigure in the light of a twofold critical gesture: on the one hand, we feel compelled to provide a not unitary and reifying approach to migration processes which effectively anesthetize and pathologize the polyphonic movement of bodies; on the other hand, we wish to activate, in the cracks and infiltrations of such regimes, alternative political spaces.

Our belief is that the Mediterranean represents the terrain of a fundamental battle on the modalities and forms which govern the representation of migrations in Europe today. This battle deals with different fields and scales, involving

heterogeneous and irreducible subjects and languages. If the struggle over representation is so widespread and composite that it makes every intervention inside of it difficult and elusive, then we need to open our discourse to different languages, exceeding the verbal dimension and reclaiming other gazes and grasps on the world.

In front of the media weight exerted by the "migration crisis" today – an excess which results in the proliferation of discourses, images, maps of migratory fluxes and routes, shipwrecks, fights, "invasions" as well as in the obsession of statistics and the numerification of bodies – we might get stunned by a vertigo of saturation and a resulting sense of distance.

One question, then, becomes urgent and leads us to react: How can one capture that moment in which certain phenomena and stories demand to be looked at and listened to in a different way? That moment when a change of perspective – another way of seeing, feeling and acting – is required?

To avoid falling into the trap of a unique discourse, we believe a polyphonic and polymorphic methodology must be implemented: audios, videos, images, maps and texts are the tools that have to rebound between each other, in order to reclaim the ethical and moral question that Judith Butler points out. Creating an archival network of the memories of these times is a responsibility that we feel we must not evade.

- *Laws*, *narratives and discourses*. Writing has the power to create and shape common feelings and public discourses, to address political choices and totally rewrite the identities of the migrants, turning them into subaltern subjects. This ability can be brought back to an essential critical horizon through the textual production of a complex and varied archive, and reading this archive can unveil the discursive background in which migration policies operate. This archive is composed of all those types of text – legal rulings, international agreements, political press or literary works, essays, narratives and public discourses – that depict the crucial rebound of these writings and words. That is the uniqueness of the voices, the acoustic of politics and also the cold tone of power.
- *Visual and beyond.* The visual field probably represents the most pervasive language usually employed to envision migrations on the public scene. Images of suspended boats on the sea surface and wreckages run ashore, crowds of bodies onto the docks and corpses lying on the beaches attract media attention, mobilizing a soundless battle where our gaze becomes both a battlefield and the real issue at stake. The visual representation of migrations with its deeply racialized implications ceaselessly reproduces objects and subjects of vision, which, today more than ever, we need to critically interrogate. If the spectacle of suffering runs the risk of sliding into a mute and unproductive empathy, then only by questioning the viewers' location and the geometries of power underlying it can the visual become a space for political responsibility and cultural critique.
- *Cartographies.* Oscillating between Frontex's operational cartographies and the contemporary map activism, we suggest that the map, especially in its digital transposition, has become the historical recording machine of the contemporary

geopolitical space. Thus, it configures, in all its evidence, the spatial arrangements in which the current necropolitical power (Mbembe 2003) consumes and justifies itself. Therefore, it becomes essential to train and multiply the critical looks to deconstruct the complex system of representations and processes within which the migratory visualities take shape in the cartographic arrangement. Our gaze should be able to understand how these visualities compete with the Mediterranean necropolitical space. And since these cartographic visualizations constitute a peculiar type of iconography, we must not cease questioning how they can be redirected towards new horizons and how they can and should be reconsidered and reconceived in order to accommodate, rather than to expel, the human.

For a Situated Knowledge

Listening is a radical practice for us, at the root of other forms of thought so far discussed. If the meeting/clash with the other has proved to be the story of a silencing, a long process of foreclosure whose victims today are likely to be – or rather are – the migrants, activating, a listening dimension might mean creating a resonance space where the voices complement each other and subjectivities result from an exchange and not from a despoliation.

These are the coordinates within which we move. Each of us is called to abide by them or to change them, to divert the path and to disorient them. None of us has to claim all these languages together. It is around these theoretical coordinates and in their insuppressibly political sense that we intend to give rise to a politics of coalition (Butler 2015), within which the different positions can in turn be assembled into extroverted and dissonant forms.

In the dialogue between our alternative but shared positions, it is mandatory to trace new figurations that are resistant to the stasis of representation, by welcoming "new" subjects who cannot be tamed, measured and controlled. In short, we need to rethink the human where the European humanist promise has miserably failed.

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Chapter 14
Does the Future Belong to Mediterranean Cities?

Lucrezia Lopez

The Mediterranean is not merely geography.
Its boundaries are drawn in neither space nor time.
There is in fact no way of drawing them:
they are neither ethnic nor historical, state or national;
they are like a chalk circle that is constantly traced, that the
winds and waves, that obligations and inspirations expand and
reduce. (…)
Europe was conceived on the Mediterranean.

Predrag Matvejević (1999, pp. 7, 10)

Abstract Post-modern human beings are in search of an alternative to the global lifestyle model, and Mediterranean cities, with different social foundations and economic cultures, could fulfill this requirement. Mediterranean cities and lifestyles exceed the current global model, which have not actually been influenced as they continue to preserve their previous customs. In this sense, the complexity of Mediterranean cities is the essence of post-modernism, which reaches its highest expression in the combination between modern and post-modern tradition. The aim of this paper is to reflect on the features of Mediterranean cities in post-modern terms to rediscover their potential as cities that are able to respond to post-modern social, cultural, and economic demands. After a slight digression relating to the main ideas about post-modernity, I analyze the features of the Mediterranean cities that must and want to rediscover their potential, their history, and their topicality. To do so, I apply the methodology from the urban interpretation that the geographers,

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Ash Amin and Nigel Thrift (2002), created considering Anglo-Saxon cities and which, in reality, can be used to rediscover Mediterranean cities, revealing substantial coincidences with the nature of the latter. In conclusion, I show how post-modernity allows for a revival of Mediterranean cities in that the Mediterranean model could become a solution to the linearity crisis of modern times.

Keywords Mediterranean city · Post-modernism · Informality · Porosity · Mediterraneity

14.1 Introduction

The global cities that dominate the urban scene in the most industrialized countries (Friedmann 1986) present an intensive use of technology, which has reduced urban social relationships to a technological scale (Castells 1999, 2001; Grahman and Marvin 1996; Morley and Robins 1995; Sassen 1994). They are global economy cities citing the *global village* metaphor expressed by the Canadian communication theorist Herbert Marshall McLuhan (1964). A similar global order has negative effects on the social and cultural dimension; individuals limit their face-to-face social relationships and prefer virtual ones, and they have learned to move about spaces that are defined as *non-places* (Augé 1992; Farinelli 2003). These spaces are neither identifying nor relational, but they are lonely spaces, which is a consequence of an economic culture becoming more globalized (Harvey 1989).

Culture is becoming all the more determined by the technology being used, cancelling out any cultural identity, and so, in order to understand the current cultural heterogeneity, it is necessary to recognize and listen to the differences. Cultural identity is comparable to a field of differences. Therefore, cultural understanding is a process that requires an internal perspective: culture is experienced from the inside (Geertz 1973). Both the American anthropologist Clifford Geertz (1973) and the American sociologist Welby Griswold (1994) agree in declaring that the human beings are afraid of chaos and that they inevitably need collective representations and symbols to act. Among these, C. Geertz (1996) believes that religion plays a fundamental role. Even for Ulf Hannerz (1991), modern cultures are complex; if, on the one hand, he identifies some aspects that are capable of dealing with cultural complexity, on the other hand, however, unlike C. Geertz (1973, 1996) and W. Griswold (1994), he makes no reference to symbols or cultural objects, and in order to express the way to produce or convey the meaning, he resorts to the flow metaphor. Lastly, both C. Geertz (1973, 1996) and U. Hannerz (1991) agree in ascribing a dialogical nature to human beings, thanks to which culture is the result of multiple human acts.

Post-modern human beings are trying to escape from the alienation caused by technology and global culture, reclaiming cultural identities and social relationships. They are searching for an alternative to their global lifestyle model, and it is

here that they rediscover the role of the city and Mediterranean lifestyles which exceed the current global model (Copeta and Lopez 2008; Lopez 2015). Post-modern human beings are looking toward a lifestyle that is similar to the one that has always been adopted by Mediterranean cities, not only because of logic and reason but also for pleasure, socialization, and distractions according to a spatial consumption model. As stated by the Greek geographer Lila Leontidou (1993), Mediterranean cities never sleep, because here people stay longer in the bars and on the streets: "it is the complex interweaving of traditional, modern and post-modern conditions, which in fact gives Mediterranean cities their complex palimpsest" (Leontidou 1993, p. 958). For these reasons, the complexity of Mediterranean cities is the essence of post-modernism, which reaches its highest expression by virtue of the combination between modern and post-modern tradition. The aim of this paper is to echo the features of Mediterranean cities in post-modern terms, as stated by L. Leontidou (1993, 1996), to rediscover their potential as cities that are able to respond to post-modern social, cultural, and economic demands. After a slight digression relating to the main ideas about post-modernity, I analyze the features of the Mediterranean cities that must and want to rediscover their potential, their history, and their topicality. To do so, I propose the qualitative methodology from the urban interpretation that the geographers, Ash Amin and Nigel Thrift (2002), created considering Anglo-Saxon cities and which, in reality, can be used to rediscover Mediterranean cities, revealing substantial coincidences with the nature of the latter.

14.2   Some Definitions of Post-modernity

Modern culture is ever-more complex and fragmented. This is also thanks to electronic communication, which teaches the individual to simultaneously operate in both local and global contexts (Griswold 1994). If, on the one hand, the post-modern human beings communicate with more communities without being conditioned by space or time, on the other hand, they are all the more overwhelmed by a strong sense of individualism and need symbols and collective representations as forms of protection. Post-modern culture presents several features such as:

- *Lack of depth*: post-modern culture is not aware of the historicity of the cultures that make it up; there is no effort to achieve a deep understanding of reality, but it focuses on the superficiality of the values. Unlike what occurs in Mediterranean cultures and cities, they are true birthplaces of urban cultural heritage that currently boast a long urban and cultural tradition (Corna Pellegrini 1998; Leontidou 1993).
- *Rejection of meta-narratives*: modernity has created great narratives via a rational and scientific method. It supported the importance of a society based on specialist awareness, but this method has failed. Post-modernity responds cynically and superficially, rejecting any type of narrative, convinced that culture is just a set of images without any reference to an underlying reality (Griswold

1994). Therefore, the time for great narratives on identity, tradition, and culture has long gone; now there are no longer any formulas that are able to harmonize the reality, which is more and more fragmented, built like a puzzle of differing stories narrated in languages that do not understand one another (Hannerz 1991).

- *Fragmentation*: the post-modern culture welcomes all that is fragmented, ephemeral, and sporadic; it's a chaotic culture (Griswold 1994; Jencks 1992). The product of such flows is a catalog of ever-more assorted identities that demand visibility (Geertz 1996) and the resurrection of a spatial differentiation (Lyotard 1984).

Post-modernity recognizes the coexistence of a range of affiliations and ways of life that interact and live together in the same territories (Hannerz 1991). It is, therefore, useless to look for harmonizing global life models or formulas because the reality is always more fragmented, and as the metaphor used by the Croatian writer Predag Matvejević states (1999), wind and waves write and erase. The dynamism and porosity of current society produce a catalog of identities constantly being rewritten and reformulated. According to C. Geertz (1996), post-modernity is rather close to the idea of culture as an organization of diversity which is managed to avoid the post-modern culture becoming an omni-comprehensive formula. Therefore, from a political point of view, post-modernity requires destructured policies such as the *politics of recognition* from the Canadian sociologist Charles Taylor (1994). He distinguishes between recognition in the private domain and recognition in the public domain. In the former, recognition is understood as the formation of identity comparable to an uninterrupted dialogue with another, while recognition in the public domain requires a policy that will guarantee equal dignity for all citizens. Therefore, a policy of recognition is equally a *policy of equality* (because all citizens must be considered in the same way; they must have the same rights and be respected in the same way) and a *policy of difference* (cultural identities must not vanish, but actually be considered). So, consistent with the post-modernism features that escape the cultural homogenization, the *policy of difference* of ethnic values is necessary to defend collective cultural values. The model proposed by C. Taylor (1994) presents these hypothetical risks, in that the claim for collective rights feeds segregation and division within a society, and thus, besides a multicultural society, we must discuss a fragmented society where each individual is too committed to claim spaces for their own ethnic group or religious community to think about dialogue with another. In this regard, the Italian geographer Vincenzo Guarrasi (2011) defends the relevance of social interactions to define identity itself, built through "otherness." It is a difficult task to carry out as interactions are asymmetrical. In this sense, he denounces the lack of contacts in current cities, where, by intensifying urban social relationships, the contact areas which are facilitators of inter-cultural dialogue are reduced. This contact with other cultures seems to threaten conventional images, but until this implemented transition is adopted and admitted and a cosmopolitan perspective is embraced, it will not be possible to create new interpretation systems.

The aforementioned transformations have an impact on space, producing post-modern spatial logics that geography must access to design new interpretative

practices in order to obtain "post-modern sensibility" (Minca 2000) which is not confined to interpreting the signs but cultural flows, understood as meanings that individuals create through adaptation in the general sense, and in the interpretations that individuals provide of such manifestations (Geertz 1996; Paradiso 2019). These flows generate a post-modern townscape that is made explicit via "the combined effects of heritage preservation, urban design, post-modern architecture, gentrification (…) and community planning" (Relph 1987, p. 252).

14.3   Approaching the Mediterranean Cities: Some Peculiarities

The Italian geographer Chiara Brambilla et al. (2019) believe that the Mediterranean space should be understood as a historical and social phenomenon that is able to adopt different operational methods and ways in time and space. In this sense, it is a relational "place" that is independent from the traditional spatial-temporary coordinates of fixedness and continuity in territorial boundaries of states (Bialasiewicz et al. 2009; Cuttitta 2007; Scott et al. 2018). Speaking about the Mediterranean means making reference to its cities (Viganoni 2018), since the Mediterranean is a set of seaways and land that are interconnected, and thus cities which, as the French historian Fernand Braudel (1949) metaphorically stated, hold each other's hand. Mediterranean urbanization is a complex process based on flexible concepts on different levels (Vaiou 2004) that the Italian researcher Luca Salvati (2014, p. 34) sums up as follows:

'Southern' interpretations of Mediterranean urbanity criticized reductionist approaches by (i) proposing a reflection on the need for novel assessment frameworks based on the peculiar characteristics of these urban systems, (ii) rejecting deterministic interpretations based on 'convergence' paradigms, (iii) accepting a critical review of the uneven gap between socio-cultural and economic systems and, finally, (iv) opening up the discussion to additional (e.g. territorial, environmental, socio-ecological) components of the development debate.

Identifying and classifying the features of Mediterranean cities is a difficult exercise due to the multiplicity of definitions, concepts, stories, and cultures associated to them (Conti and Segre 1998; Matvejević 1999; Salvati 2014). Despite this, below, some typical elements of Mediterranean cities have been highlighted. According to the Italian geographer Giacomo Corna Pellegrini (1998), Mediterranean cities are connected by several features, but the main one is that "almost all of them were founded hundreds, perhaps thousands of years ago. What is more, most Mediterranean cities have been inhabited ever since they were first founded and their civic institutions have been functioning ever since then" (Corna Pellegrini 1998, p. 62). In order to highlight this social and cultural dimension, the Italian sociologist Franco Cassano (1996) coined the expression "the southern European mindset" (*Pensiero Meridiano* in its original Italian language) through which he defends a way of rethinking about the south from its history. The past and the Mediterranean lifestyle

can become springboards of revival for Mediterranean cities, understood as an alternative to the lifestyles in the western world, and no longer a negative symbol of backwardness and silence (Giaccaria and Minca 2010; Salvati 2011, 2014). In this way, the reassessment of the peripheral position must also be applied to the Mediterranean, so that it takes on a new interpretation (Minca 2004). Becoming Mediterranean metropolitan cities does not mean approving the western model, but rather preserving their own historic and cultural identities (Cassano 1996). At the same time, the lack of development, modernity, and progress has produced a sense of embarrassment; coming from the south was seen as a burden, while in light of the consequences that hectic modernity has delivered, it can be said that the values of identity only exist and are still strong in the south:

> A southern mindset contains those thoughts that begin to be felt wherever the sea starts, when the shore interrupts the earth's fundamental elements (particularly the economy and development), when it is discovered that a border is not a place where the world ends, but it is where the outsider's touch and the relationship with another becomes real and difficult. (proper translation from Cassano 1996, p. 4)

14.3.1 Mediterranean Cities Between Informality and Spontaneity

According to the Greek geographer Lila Leontidou (1993), Mediterranean cities have always been post-modern, because since the concept of post-modernity was created in the 1970s, identifying links with Mediterranean cities is possible. Post-modernity is not new because it has always existed here, given that Mediterranean cities have always shown a series of features that are very close to post-modernity. Therefore, post-modernity in Mediterranean cities is not positioned after modernity, but it is a cultural alternative inherent in the lifestyle, and they are an example of how history is not necessarily linear. In order to explain her theory, L. Leontidou (1993) recaptures the aspects that the sociologist Ihab Hassan (1985) attributes the post-modernity: (1) diversity and spontaneity, instead of rationality and planning; (2) flexible integration, instead of a functional separation; (3) ironic eclecticism and quotations, instead of the avant-garde; and (4) deconstruction, instead of counter-revolutionary arguments and representation. From her point of view, spontaneity, informality, and irony are reflected in a more general cultural diversity that corresponds to a multi-dimensional mixture of tradition, modernity, and post-modernity (Leontidou 1993). L. Leontidou adds a further characteristic: communication; she actually considers that communication must be constantly on the rise in post-modern societies. This doesn't only concern new technologies but also the emergence (or re-emergence) of new cultures, movements, and conflicts, such as gender and race, where more so than community, talking about challenges is more preferable. For this reason, intensifying communication also means considering rising mobility (Paradiso 2019).

Post-modernity is also interpreted in urban construction, in that if, on the one hand, modern cities follow a logic that is too rationale to the extent that they deprive the city of its beauty, post-modern cities prefer criteria of spontaneity, setting up democratic planning for a city built over time. In fact, Mediterranean cities have been the birthplaces of urban development that is oriented toward preserving cultural heritage and the city's beauty through spontaneity and informality (Corna Pellegrini 1998). Given that spontaneity and informality within the Mediterranean context are understood as a lack of discipline in both work ethics and the use of resources, urban development has been strongly fragmented, without urban reforms and provisions, ultimately leading to speculative development (Leontidou 1990, 1993). The processes of speculative development have involved cities and their corresponding coastal strips (Lemmi 1998) as well as the countryside. In fact, another peculiarity of Mediterranean cities is the close bond with their hinterland, as the coast-hinterland communications reveal through ways of communication (Corna Pellegrini 1998; Farinelli 1998). There is, therefore, an actual theory of urban growth in the Mediterranean that is based on an urban expansion model that, in reality, according to the Italian geographer Franco Farinelli (1998) is born out of an unspoken or explicit agreement between state administration, municipal motions, and real estate production.

In Mediterranean cities, the spontaneity and informality pair produces a fragmented development of cities whose result is the coexistence of buildings dating back to different historical times: stratigraphy. The apparent architectural confusion bears witness to the history of civilizations that have left their heritage in urban structures, and so through stratigraphy, it is possible to tell of the urban past and the influences from the different cultures "the passage of time is thus partly written on the built environment, where different periods and different styles are superimposed" (Leontidou 1993, p. 952). Considering the historicity of Mediterranean cities stated above, "the overlapping of many different layers of civilizations makes any reading of their history a complex, often mysterious, but always enthralling experience because at each level we have to use a different code if we are to interpret what we are examining" (Corna Pellegrini 1998, p. 62). This is why the stratigraphy of Mediterranean cities can be horizontal and vertical; in the former, it is due to the juxtaposition of assets from different historical periods, and it can be noticed visually, while in the latter, it is a true overlap of historical periods that can be rebuilt from archeological or cultural awareness to understand what the urban space has under the ground. We only need to think about the numerous excavations which shed light on the remains of hidden civilizations.

With regard to informality, it has a pervasive nature because it has a long tradition and it concerns all the domains of urban life (Farinelli 1998; Leontidou 1993). In the economic field, for example, during post-modernity, people reconsidered the importance of flexibly accumulating resources (particularly the workforce), no longer necessarily linking work to the factory as was the case during Fordist times. Work flexibility allowed us to go back to work forms that were previously considered as pre-industrial, which in Mediterranean cities have never disappeared; consider small stores, seasonal work or piecework, subcontracted labor, and a myriad

Fig. 14.1 Tourist market in Dubrovnik's historic center (August 2014). (Own source)

of other jobs that populations have invented in order to survive (Fig. 14.1). In this regard, L. Leontidou (1990, 1993) recalls that the Italian intellectual Antonio Gramsci (1971) had recognized certainsociocultural peculiarities in European Mediterranean cities united by a tradition for spontaneity and informality. In fact, he considered them the birthplace of cultural heritage that favored the citizen.

Resistance to discipline and order has exonerated Mediterranean cities from the work ethic, a value that was only neglected in other societies during post-Fordism. Even in this case, Mediterranean societies have preceded others by showing stubborn resistance to any form of discipline.

14.3.2   The Mediterranean Post-modern Economy

During Fordism, other types of local economies were developed in southern Europe with a low concentration of people with the aim of penetrating the global market (Farinelli 1998). They split the European economic scene into a *formal economy* and an *informal economy*; the latter was based on production systems with flexible labor hoarding, an aspect that is already linked with the aforementioned informality, which, along with lightness, allows for an informal economy, which resists discipline and creates communities that unite against any external threat, to continue. Informality is useful in recruiting workers, among which are women and the weakest of people (Schingaro 2019). In helping them is the family, which conducts the state's tasks; it is a form of support in the event of poverty, unemployment, illness, education, and true self-sufficiency founded on reciprocal support (Salvati 2014). But the family is also a mechanism of social control and self-control of offspring, which in some cases helps to nourish disagreement in terms of informal practices

(Gottfredson and Hirschi 1990; Hirschi 1969; Schingaro 2019). For L. Leontidou (1993), nowadays, the informal economy in Mediterranean cities can be considered as a reaction to modern corporations, strongly approved and incapable of safeguarding identity; furthermore, thanks to post-modernity, the Mediterranean informality has finally found images, symbols, and autonomous ways to organize itself in the workplace (Schingaro 2019).

The interest shown by the F. Farinelli (1995) about the Mediterranean region mainly concerns its informal economy. Today, in order to speak about the Mediterranean region, we must abandon the idea of uniqueness that the Mediterranean Sea has granted to all the countries looking out over it (F. Aymard 1987). Farinelli's (1995) Mediterranean space is a third space "between land and sea," more so than a binary contrast. This theory reclaims the position of the English geographer Halford J. Mackinder (1904), who resurfaces the idea of a Mediterranean empire. H. J. Mackinder developed a *ternary model* according to which the Mediterranean space was a kind of "crescent" that transformed its position from being apparently marginal to strategic, adopting a role as a mediator between dry land and the sea.

And it is within this function of the Mediterranean's space as a mediator between land and sea, provided with internal substance on account of its traffic intentions (Bonazzi 2019), the port, as an emblem of Mediterranean cities cannot be ignored. It was designed for commerce and exchanges which were the beginnings of Greek civilization (Lefebvre and Regulier 1985). According to P. Matvejević (1999), for example, Mediterranean cities aspire to be free zones, and so in the Mediterranean, "cities with ports" are distinguished from "city ports." In the former, the ports are built out of need, and in the latter, they are built according to the nature of the places (Fig. 14.2). There are ports that are forever just moored or anchored, while others become whole worlds, where everything is gathered and things flow from everywhere – they can be reached by land and also by sea: these are free ports. The majority of coastal Mediterranean cities arise in the direction of the main ways of communication, thus becoming important interchanges; their position favors the circulation of information and strengthens the *relational informal economy.*

F. Farinelli (1998) believes that the Mediterranean has introduced two large economic models: the global system[1] and the anti-global system. If, on the one hand, everything that works according to the rules is known as a global system, on the other hand, there is "the anti-global system." The latter is a marginal place that even in its extra-territorial position serves the whole global system. In the anti-global system, there is an informal and illegal economy, which is inevitably linked to the global economy that it provides resources to (Farinelli 1998, 2003). In this free zone, domestic legislation is partially applied, and any legal activity is permitted, trafficking weapons and drinks, casinos, and tax havens; it is a free zone for trade and business exchanges; it is a place for experiencing new activities and marketing strategies. They are enclaves of an extra-territorial nature that make them the perfect

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[1] According to Immanuel Wallerstein (1978), the global economy must be understood to be an economic system on a worldwide scale, which he believes to have existed for 500 years.

Fig. 14.2 The port of La Valletta (June 2013). (Own source)

targets for foreign entrepreneurs. Furthermore, the way the anti-global system works coincides with the Mediterranean, whose economy has always differed from the world economy; in fact, F. Farinelli (1998) defines it as an economy with cavities, *enclaves*, free zones in which there is a place for an information economy, where flows of information move between what is international and what is specifically local (Farinelli 1998, 2003; Montanari 1998). The Mediterranean city is therefore so separate between areas in the city that they have witnessed a certain development and others that know a condition of marginality, be it spatial, economic, or cultural (Schingaro 2019). The informational, informal economic space is the key between the global system (and the flow regime: information economy, information flow management, abstraction of goods, international management) and the anti-global system (regulation method: computerized economic space where the main value is the accumulation of local resources).

The information that F. Farinelli (1998, 2003) discusses is something abstract and intangible that is easily transportable. The space in which information moves between local and global cannot be defined, and so the state has no possibility to control it, and here it shows the growing powerlessness of states facing a rise in movement. If we think about the Mediterranean space, it has always been characterized by movement where the state always has problems. The *informal* or

Fig. 14.3 Resting at Barcelona's Park Güell (February 2008). (Own source)

underground economy is an example of it since it is founded on contrivances that are not fully legal, which becomes a standard consolidated in time and developed without any hindrance (Lefebvre and Regulier 1985; Schingaro 2019).

Of the several economic sectors, tourism and its flexibility, seasonality, informality, and production methods (including crafts), it is the post-modern economic sector par excellence (Leontidou 1993). At the same time, this success is owed to the images that are partly responsible for international flows of tourism (Miossec 1977; Raffestin 1986), in the case of the Mediterranean basin, fed by myths and metaphors (Minca 1998), like in the film *Mediterraneo* by Gabriele Salvatore in which, according to C. Minca (1998), it is possible to identify an image of the Mediterranean that corresponds to that "of escape and abandonment, made up of clear blue waters, sunny skies, refreshing breezes, and open and generous people-the ideal background for the ephemeral and therefore temporary re-creation of an ancient and, somehow, reassuring world of values" (Minca 1998, p. 259) (Fig. 14.3). Another winning aspect of the Mediterranean image is the historicity of buildings which offer tourism different ways to consume the beauty. There is, therefore, a *Mediterranean tourist style* (Amendola 1993) that takes inspiration from post-modernity since it highlights the local and historical dimension of the region (Jameson 1991) and because:

> The Mediterranean Style, rather than homogenizing the landscapes it inspires, in reality, it favors a certain eclecticism in the construction of tourist space (…). The Style thus draws upon a territorial discourse of local nature, clearly reinterpreted and represented for the enjoyment of the tourist space. (Minca 1998, p. 262)

14.4   Deconstructing Mediterranean Everyday Life: Experimenting a Qualitative Urban Interpretive Framework

The reconsideration of the space concept in social science attributes the function of interpreter between the space and social behavior to geographic discourse and the task of reading and interpreting spatial theories to geographers (Minca 2000). This exercise is carried out by becoming aware of the representation crisis and recognizing that post-modernity requires a "more than representational" approach. With this expression, the English geographer Hayden Lorimer (2005) states the importance of the metaphor and the material expressions and those experienced in the place. It is an approach that is observant of the most strictly subjective dimension, without which it cannot be understood how the experience in a place can change (della Dora 2011, 2012). This presumes the research of "dissociated fragments, shards of reflecting glass which at once illuminate, reflect and distort" (Cosgrove and Domosh 1993, p. 29).

The post-modern paradigm, therefore, requires new interpretative frameworks to study the post-modern reality, which no longer responds to linear logic but requires a destructured approach (Leontidou 1993) produced from "cognitive tools which would help us to, somehow, navigate across the disorienting amalgam of virtual stimuli, ecological anxieties and the instability of meaning which now frame our daily life" (Minca 2000, p. 192). According to C. Minca (2004), geographers must reflect on the narrative themes of space, borders, horizons, resorting to a combination of qualitative and quantitative methodologies. It is therefore necessary to rediscover new societal study methods that will allow for a voice to be given to the micro-narratives of a dynamic, complex, and fragmented society (Lopez 2015). Certainly, qualitative methods can provide a solution to the need to embrace Mediterranean urban societies (Schingaro 2019), and for that purpose, an interpretative framework of modern cities is proposed which was posed by the geographers, Ash Amin and Nigel Thrift (2002), which, while being devised for post-modern cities in northern Europe, can also be used for Mediterranean cities since they have also kept their "footprints from the past" and their "Mediterranean rhythms" and they are talked about in their lives every day (Copeta and Lopez 2008; Lopez 2015). The starting point of this analysis is to recognize that cities have become complex, and so it is no longer possible to analyze them generally. According to A. Amin and N. Thrift (2002), modern cities have often become more like urban conglomerates of areas with different features, thus taking on a highly heterogeneous look which would, to some extent, refer to the previously cited development model on Mediterranean cities (Farinelli 1998; Leontidou 1993).

A. Amin and N. Thrift (2002) believe that the development of the city and social urbanization have not deprived cities of their spatial landscapes, and places in cities (even the more recent ones) have their own footprints. These are created and recreated with the change in communication methods and the ways to socialize, and they

believe that even in today's metropolitan cities, it is possible to identify places understood to be corridors of communication with a potential presence for family spaces in cosmopolitan cities. They prefer to adopt a method that will allow for the city to be reconsidered in light of the growing complexity and mobility, and they conceive the city as a virtual entity, a series of wherewithals with unpredictable and constantly new elements: "cities take shape through a plethora of 'fixed namings'. The challenge of reading the city thus also lies in the study of the devices through which cities are named" (Amin and Thrift 2002, p. 24). Urban problems and solutions are developed simultaneously; every moment of urban life can become an unexpected and unpredictable representation, often bringing to light forgotten or overlooked temporality and spatiality:

> The approach we pursue in this book is one which strives to be close to the phenomenality of practices, without relapsing into a romanticism of the every day, and of action for itself. Necessarily then, we accept that urban practices are in many ways disciplined, but we also believe that these practices constantly exceed that disciplinary envelope. Each urban encounter is a theater of promise in a play of power. (Amin and Thrift 2002, p. 4)

From the moment that every urban encounter is a game of power, they have studied the city by placing focus on practices disciplined by the rules and provided with an individual meaning. The purpose of further focus on the present is to put the romantic sentiment of the past to one side and to listen to the city at present, which is rich in potential but sometimes not understood as such; it is the reason why we must act in according with urbanism that will highlight the city's mobility which must be interpreted from its recurring phenomenological strategies (Amin and Thrift 2002). Furthermore, given that the coherence of the city is researched through the study of its cognitive dimension, in order to identify the recurring practices of daily life, they apply the theory of the daily life city using three metaphors:

1. *The metaphor of transitivity (porosity)*: through which the spatial and temporary opening of the city is expressed; this metaphor refers to the tradition of *flânerie*.
2. *The metaphor of city rhythms*: it is used to analyze the daily rhythms (it is a tool to rediscover neglected temporalities).
3. *The metaphor of urban footprints and namings*: it considers the effects of the footprint on the organization of urban life; it analyzes the traces of movement left from the past and the present and the connections that cross and exceed the city's limits.

Below is the conceptualization of these metaphors and their corresponding relationship and contextualization in Mediterranean cities. To do so, a qualitative methodology is referred to based first of all on the walk, followed by the description, and, lastly, by the interpretation (Lopez 2015). It is important to recognize that the act of walking is a form of interaction and communication with the space surrounding us (Paba 1998) which produces a series of walkscapes, meant as an introspective and experiential landscape resulting from the aesthetic act of walking that is a simultaneous act of reading and writing the surrounding environment (Careri 2006). These intimate and personal territorialities emerge from the walking experience.

14.4.1   The Metaphor of Transitivity (or Porosity)

The German sociologist Georg Simmel (1950) and the German literary critic Walter Benjamin (1979) inspire A. Amin and N. Thrift (2002) to define the term *transitivity,* used to describe the city as a place with mixtures and improvisations that originate from its porosity and the different spatial influences. According to W. Benjamin (1979), transitivity/porosity allows for the city to constantly reshape itself, to serve as an example as to how the past and the present are interconnected. Porosity unites space and time to define the urban dimension, for example, the informal exchanges that usually take place at ancient monuments. Lots of informal markets actually take place at monuments or along roads that evoke the past. The city of everyday life reinterprets the city from its roads; these are complexities that offer maps and stories to understand how life works inside it. In order to collect stories about the roads, a pilgrimage is needed, a kind of wander; this is why the city is similar to a flânerie and the "theorist" is a flâneur who, with his sensitivity and poetic science, decides to lose himself in the rhythms of daily life (Amin and Thrift 2002). The flâneur moves about the city to research stories which will help him to understand it; it is through these stories that spatial qualities and meanings are highlighted. Since the stories have a subjective point of view, the everyday city stops there; it must also use other technologies of knowledge that are able to describe the city moving from the past to the present. This requires sources of information that will record the changes taking place over time, for example, photographs (e.g., video sequences, shots over the year), books, and films that show the city's global connections (e.g., stories about cultures from the diaspora).

Mediterranean cities have a conception of space that is decidedly different to the norm as here space is experienced on all its possible variants, from open to close, from the inside out; public and private spaces are often merged (Giovannini and Colistra 2002). Spaces are therefore *transitive* and *porous* because they are open to any unpredictable interpretation (Fig. 14.4), and, as A. Amin and N. Thrift (2002) state, streets make it possible to "read" the complexities of a city.

The image of a transitive and porous city can also be evoked from its border position, in that the Mediterranean Sea is a boundary but it is an invisible boundary and so the city's space and the sea's space seem to be one. Furthermore, spatial transitivity is an aspect of Mediterranean cities that differentiates it from others regardless of the urban structure it takes on. Its construction is designed for exchanges between men, and therefore the true center is the square, a public place par excellence that revokes the Greek *polis* and the Roman forum. In this sense, squares and roads become meeting places, and above all, as post-modern man has learned to do, the Mediterranean man has always been attracted to the old part of his city, where he can find his memories and identity (Copeta and Lopez 2008) (Fig. 14.5). In these cities, the spaces and places are experienced at all times.

Fig. 14.4 Clothes hanging in the Dubrovnik's historic center (August 2014). (Own source)

Fig. 14.5 People in Ferrarese Square, Bari (February 2010). (Own source)

14.4.2   Rhythms and Analysis of the Rhythms

According to French philosopher Henri Lefebvre (1992), cities depend on the relationships between neighbors; by looking at the city, we can see how it is crowded by

a myriad of people that move in different directions, that is to say, the city is made up by different rhythms. Therefore, cities can be understood by accessing their "rhythmanalysis," that is, the analysis of their rhythms (Lefebvre and Regulier 1985). H. Lefebvre and C. Regulier (1986) proposed the role of a "rhythmanalyst" in Mediterranean cities, which they compare to an "enigmatic personage" wandering the streets and using the different tools to access the real urban meaning. The English geographer John Allen considers that:

> By city rhythms, we mean anything from the regular comings and goings of people about the city to the vast range of repetitive activities, sounds and even smells that punctuate life in the city and which give many of those who live and work there a sense of time and location. This sense has nothing to do with any overall orchestration of effort or any mass coordination of routines across a city. Rather it arises out of the teeming mix of city life as people move in and around the city at different times of the day or night, in what appears to be a constant renewal process week in, week out, season after season. (Allen 1999, p. 56)

Also for A. Amin and N. Thrift (2002), urban rhythms are useful coordinates for visitors and locals in order to understand the urban experience and learn about how time has marked the city. They are useful to understand customs in the city and hidden temporalities, such as the domestic space, which is intertwined with public life. For this reason, the analysis of the city's rhythms is linked to the sociology of daily life in the city. In order to understand the rhythms, it is important to also consider the role of technologies that have had an impact on communication methods (the Internet). This approach regarding urban rhythms refers to the "window" metaphor already used by the H. Lefebvre (1992) that considered it as an objective instrument for reading the city since it offers a higher perspective that it "allows the city (…) to be read from a certain height and distance so that the comings and goings can be perceived in combination. The window is thus both a real site to view varied rhythms juxtaposed together, and a tool for speculation, presumably with the help of technology such as maps, drawings, texts, photos and film" (Amin and Thrift 2002, pp. 18–19). Windows are a way of looking out at the world, at the city, to perceive and reflect on the catalysts it offers (Fig. 14.6).

A highly important aspect of the Mediterranean lifestyle that has been reassessed is linked to "time" in the south (Cassano 1996). The rat race of the modern age has been viewed from the outside at a distance with amazement and skepticism; Mediterranean cities have stayed away from the "speed"; while in the rest of the world, people are in a rush, in Mediterranean cities time slows down, it is stretched out, and small customs are still maintained (walking along the road or the promenade), such as the *siesta* or break; this "slow pace" allows us to see and scrutinize the past and to recover values and identity (Copeta and Lopez 2008; Lopez 2015). The different way in which time has marked the south has made it a privileged holiday destination to underline how, here, life goes by slowly. In recent years more attention has always been paid to the Mediterranean area and its identity. In many cases there have been attempts to reproduce a Mediterranean lifestyle; the revival of the *Mediterranean culture* begins with reassessing and valuing Mediterranean nature.

14.4.3   Urban Footprints and Identification

If from a socioeconomic perspective it is difficult to identify the boundaries of a city, A. Amin and N. Thrift (2002) recall that the urban space is defined by urban planning and rules, besides a transport network. According to their theory, the metaphor of the footprint is closely linked to the metaphor of porosity, in that the footprints are the result of a link between the past and the present. The past crosses the present through a spatial porosity and a temporary porosity. Footprints are in fact identified on every layer of urban archeology because every urban layer has a system of interconnections. Footprints are left in places belonging to different periods of history, so if the city is considered from the point of view of the connections between the different footprints, a method of research that represents the city according to a tidy and linear development has to be abandoned. Recognizing the urban footprints helps to better understand the complexity and urban transformations, the city mix, the symbols of the past, and the post-modern urban identification elements. This footprint method evokes the theory of urban stratification created by L. Leontidou (1990). Although, if on the one hand, A. Amin and N. Thrift (2002) aim for their proposal to show a generalized global view, urban complexity does not allow for a unique identification. As can be seen in Figs. 14.6 and 14.7, by walking through the cities, footprints from the past can be traced, and post-modern cities incorporate them into their landscape in a different way. Urban footprints become elements of recognition, identification, and urban marketing.

Fig. 14.6   A window on Haifa (July 2010). (Own source)

Fig. 14.7 The defensive wall in Dubrovnik's historic center (August 2014). (Own source)

Fig. 14.8 Roman columns on the promenade in Bari (February 2010). (Own source)

Figure 14.7 shows the defensive wall that surrounds and goes through Dubrovnik's old town. It is an urban footprint that evokes the Middle Ages and the Mediterranean's structural defenses, whose function was to spot the enemy. Figure 14.8 portrays columns from an old Roman road that owes its name to the Trajan emperor that had it built in 103 A.C.; it was commissioned instead of the Appia Road, and it touched the city of Bari (*Barium*) in its journey from Benevento to Brindisi. The new link was supposed to avoid having to pass through the Daunian Apennines and make a more pleasant journey, as it was a coastal road.

14.5   Conclusions

The growing interest for cultural studies has led us to consider the importance of culture and the need to reflect on new roles for spaces, places, districts, and cultures (Copeta and Lopez 2008). Global cities, united by the intensive use of technology, reduce their social relationships to a technological dimension. In this global village, individuals reduce their face-to-face social relationships preferring virtual ones, and they move in spaces that are defined as *non-places* (Augé 1992; Farinelli 2003). Meanwhile, culture seems to be more defined by the type of technology that is adopted, cancelling out any cultural identity.

Post-modernism bears witness to the state-nation crisis and their borders, which, in the global world, have become less visible and easier to overcome. We are living in a highly dynamic society; flows of people, goods, and information are shifting at all times to all parts of the world (Paradiso 2019). Informality and illegality have always existed in Mediterranean cities, while post-modern human beings (not Mediterranean) have now learned to reject orders and rules, and by being detached from any ties, they now feel freer to move about. In reality, they are trying to escape this alienation by recovering cultural identities that will reclaim their spaces. Post-modern human beings are also reclaiming their "social space," in the sense that they intend to recover the social relationships that they have lost. In other words, post-modern human beings are searching for an "alternative" to their global lifestyle model, and it is here that they rediscover the role of the city and Mediterranean lifestyles which exceed the current global model (Lopez 2015).

Post-modernism in Mediterranean cities is not a cultural form that follows modernism, but rather a cultural alternative to modernism (Leontidou 1993). Given that Mediterranean post-modernity, as stated by L. Leontidou (1993, 1996), has always existed, the "post" suffix can be removed. It means recognizing the authenticity of post-modernism in Mediterranean cities, which have always been hatcheries for a similar culture, which from a peripheral and *other* position has the right to reclaim its central position. Also, according to F. Farinelli (1998), post-modernity will be part of the Mediterranean, in the sense that in the post-modern age, the state dimension will be reduced to a more regional dimension, and overall economic activity will provide a cavity structure again. Both, therefore, consider post-modernity as a revenge of the Mediterranean cities. The interpretation of the everyday city based on A. Amin and N. Thrift's methodology (2002) confirms that the Mediterranean model can be a solution to modernity's linearity crisis. This analysis and interpretation model allows us to rediscover local narratives that disregard the linearity of time and space (Leontidou 1990). Since post-modernity is interested in rebuilding territorial identities, according to V. Guarrasi (2011), Mediterranean cities are privileged places for generating identity. At a time when the Mediterranean alternative is shared, the basin of the Mediterranean abandons the marginal and peripheral position it was bound by.

Mediterraneity should no longer be solely and exclusively defined through the otherness of global cultures, but rather it should recover its historical, cultural, religious, and urban heritage to scream out about its centrality and thus recover whatever it has lost.

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Part III
Applied Geographic Thinking: Education and Spatial Planning

Chapter 15
A Model of Development of Transport Between Spain and France: Between Recovery, Imitation, Improvement and Divergence

Jean-Pierre Wolff

Abstract In Europe, when we compare public policy transport-wise, we immediately notice the opposition between Latin and Mediterranean countries on the one hand, and Northern European countries on the other. Although this opposition should be more nuanced, it is also very real in terms of the roles of public and private entities and the perceptions and practices of the populations. Nevertheless, in Mediterranean countries, taking just the examples of Spain and France, some elements link these two countries, while others clearly differentiate them. This proposal demonstrates Spain's policy of catching up with and overtaking another country, France, which was considered as a model of public policy for community, mobility and transport.

Keywords High-speed lines · Railway policy · Delay · Recovery · Technical differences

15.1 Introduction

The matter of transport is closely linked to that of land, and more particularly their function. Transport infrastructure takes part in social organization and the economic development of all territories. High-speed railways are part of a historic continuum of journeys and transport that have taken place over two millennia in the regions along the Mediterranean. Without going into the development of infrastructure after the Roman period in depth, we should stop briefly to look at the last four centuries, which have shaped certain Mediterranean territories that over time were incorporated into Spain and France. These two states that were constructed over many

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centuries by the reinforcement of a strong central power have always encouraged control of their territory by creating transport infrastructures, constituting one of the foundations of this national construction.

First of all, let us be reminded that during the seventeenth and eighteenth centuries, main roads were built so as in the second half of the nineteenth century, when railway lines encouraged and accelerated this transformation both in the political and economic systems. This process is not unique to Spain and France; it concerns all the European states that were founded around the concept of the nation state. Admittedly with great nuances between them, on one hand are the states with the oldest political-administrative structures that are already centralized, and on the other hand the new states that wish to reinforce their recent and still-fragile unity. But for all these states, the modernization of existing transport infrastructure and especially the creation of a railway network strengthened their foundation and allowed more ambitious economic development, brought by the Industrial Revolution. A century later, two other means of transport appeared—road and air—which would compete head on with rail travel as of the 1930s for the former, and from the 1980s/1990s for the latter. This development of road networks, motorways and airport infrastructure pertains to these planner states' desire for modernization of the states that were rebuilt on the rubble of Europe in the aftermath of the Second World War. In the 1960s and 1970s, all the power of the developer states, guarantors of the economic and social modernization policies, reached its peak and both the car and the aeroplane symbolized the efficiency that nothing could slow down or stop, in spite of the warnings from the Club of Rome regarding the environmental plan at the end of the 1960s (Meadowsn et al. 1972).

The redistribution of maps on a global scale with the rise of South East Asia and the consequences of the oil crisis in the 1970s led to a very severe economic crisis that shook the foundations of this demiurge state with the end of the Trente Glorieuses. The only possible way out for Western countries seemed to be based on opening up and modernizing markets, proposed by the triumphant liberalism that questioned the planning and ordering state during the last quarter of the twentieth century. This rising power of economies that were ever more integrated to the European and global levels accentuates the competition between the different modes of transport. The almighty power of Délégation à l'aménagement du territoire et à l'action régionale (DATAR [Delegation for Land Development and Regional Action]) in France, which had greatly participated in the modernization of France after the Second World War, began to withdraw as of the 1980s. In Spain, the end of the Civil War in 1939, the end of Franco's regime in 1975 and, above all, its entrance to the European Union removed this country from economic isolation, and this translated into modernization at a steady pace until the outbreak of the economic crisis in 2008. With the collapse of the Francoist state, the regional autonomies asserted themselves around the constitution of regional powers that are much stronger than in France. At the beginning of the 1980s, however, the regional powers had known the setup of a tentative regionalization of implementation but not of decision-making. In this new phase of the history of these two countries, which were becoming more and more integrated into Europe, the question of infrastructure and their

regeneration to increase their efficiency is more and more present, as it is globally and recurrently for all countries and territories. We will analyse the processes that will be part of the modernization of railway infrastructures, which underwent a period of decline that began in the 1930s, amplified after the Second World War in the 1950s and that tried to resist competition from both the car and the aeroplane by adopting a concept born in Japan: high-speed rail travel. In 2017, the 25th anniversary of high-speed rail in Spain (Alonso et al. 2017) and the 35th anniversary in 2016 in France constituted important milestones to revisit the development of high-speed rail in these two countries.

Throughout history, different transport infrastructures have always participated in the development of territories. Without these infrastructures and whatever the territory considered, the chances for socio-economic development are limited even if the transport infrastructures are not the be all and end all of territorial development (Association des villes TGV 1991). The presence of a railway line, a motorway or an airport does not systematically guarantee economic development (Offner 1993). For infrastructure to be a relevant tool for the socio-economic growth of territories, they should be accompanied by strategic public policy for development, associating even more so often public and private entities more and more (Troin 2015). Our aim is to analyse only the ongoing processes in the expansion of the high-speed railway in recent decades in Spain and France. Admittedly, this is not the only type of infrastructure that has been the subject of significant investment and by broadening our field of research, the motorway and airport infrastructures mobilized, from the 1950s/1960s, the attention of states in this effort to modernize in Europe. However, even if in this approach the observation of the motorway systems between both countries is far from irrelevant, we will not tackle this matter in this work. Indeed, and unlike the development of the high-speed rail, neither Spain nor France have encouraged the emergence of a motorway system in Europe, unlike the role these two countries played (and that Spain continues to play) for high-speed rail. We will therefore focus on high-speed rail, which comes in two forms: the high-speed line (HSL) and the high-speed train (HST). We will leave aside the versions of high-speed rail such as high-capacity lines that allow speeds of up to 250 km/h to be reached and only accommodate mixed traffic (freight and passengers), and instead we will focus solely on HSL. Nor will we deal with classic or traditional lines, some of which may have HSTs operating on them, and which allow the reduced effect of the high-speed rail to be diffused in the regions that do not have an HSL service.

15.2   HSLs at the Heart of Multiple Issues

To tackle the questions linked to the decline and renovation of railways, we must present the geographical, socio-economic, environmental and ideological frameworks in which they have been inscribed in recent decades. When discussing the matter of railways, geography plays an important role. Railway development has

always had to take into account morphological and topographical constraints, and in fact trains cannot overcome slopes of more than 3% without a rack and pinion. A lack of adhesion due to the rail/wheel system or metal on mental greatly puts this mode of transport at a disadvantage compared to the road system, where the adhesion of tyres/road is clearly superior, allowing slopes of up to 12% to be overcome. Classic railway lines have always had to adapt to uneven terrain by following the low parts of valleys, or by constructing tunnels, bridges and viaducts. This railway technique was inherited from the start of the nineteenth century and has been improved upon by increasing the commercial speed of passenger trains to a limit that seemed difficult to surpass without the high-speed revolution that emerged in Japan after the Second World War. This was based on the design of new materials suitable for high speeds of up to 250 or 300 km/h, even 400 km/h, for example in China on the Shanghai-Beijing HSL since 2017, and new infrastructure based on research of even longer straight profiles to reach even higher speeds. Spain's morphology and orography do not facilitate the construction of HSLs. The numerous mountain ranges surrounding the Meseta hinder Spain much more than France, where HSLs have, up till now, been implemented almost exclusively in lowlands and valleys, greatly simplifying their construction. Meanwhile, in Spain most of the coastal areas and ports are cut off from the inland regions and the capital, Madrid, which is in the very centre of the Meseta, having required the construction of numerous tunnels and viaducts. By means of illustration, we observe that 58.38% of the Ourense to Santiago de Compostela route in Galicia is constructed in tunnels (35.84%) and viaducts (22.54%). Other Spanish HSLs, without having such linear road structures, have around 20–40% of their lines through tunnels and viaducts (Fundación de los Ferrocarriles Españoles 2017, p. 79).

This type of infrastructure involves significant costs, which can slow down, limit or even cause some projects to be reconsidered. For HSLs, the costs can vary greatly depending on the commercial speeds aimed at, the technical difficulties to be overcome linked to topography, the weight of expropriations on the future route and the environmental measures selected. The specific costs per kilometre of the first HSLs (Paris–Lyon in 1981: € 4.4 m; Madrid–Seville in 1992: € 7.2 m; Paris–Le Mans in 1989 and Paris–Tours in 1990: € 7.4 m; Madrid–Lerida in 2003: € 10.3 m [González Franco 2015]) seem low compared to more recent implementations (Perpignan–Figueres: € 21.5 m in 2011; Madrid–Valladolid: € 21.7 m in 2008; Tours–Bordeaux in 2017: € 25 m; Le Mans–Rennes in 2017: € 16 m) or compared to the Valencia–Castellón projected, estimated at € 19 m. These costs are linked not only to the geomorphological characteristics of the territories crossed (in particular the length of tunnels and viaducts)[1] but also to inflation during this period, in which environmental demands were becoming more and more present. The HSLs are financed by different stakeholders: the state, regional communities, Europe and, particularly in Spain, the network owner and sometimes private entities. Financial arrangements

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[1] For the Figueres–Perpignan HSL with a length of 40 km, the twin-tube tunnel was developed along 8 km. For the Madrid–Valladolid HSL, with a length of 161 km, 42 km of tunnel were constructed.

are complex due to the multiplication of projects and the depletion of public financing. HSL costs are high and some consider them disproportionate compared to the predicted socio-economic returns. They must be compared to those of motorway infrastructure that can reach considerable sums, especially those that are in territory that is complicated due to the terrain and/or urbanization. These motorways are financed either by the state or by private companies and can be easily paid for through toll fees. The price of constructing motorways has also risen sharply in line with general inflation, though also due to the increase in environmental requirements relating to the integration of landscapes and new obligations in terms of road safety. This is how the motorway project between Lyon and Saint-Etienne rose to € 25 m/km. We can also think of the motorway construction between Cruseilles and Saint-Julien-en Genevois in Haute-Savoie, which reached € 44 m/km.

Amongst the euphoria caused by the construction of the first HSLs in France and Spain, the question of costs did not challenge the new HSL projects. It is necessary to return to the optimism that accompanied these projects in early developments. Trains were reborn by providing solutions to congestion on motorway networks and at many airports, all by efficiently tackling pollution and imported fossil fuel consumption, which is expensive and limited in time, and for a cost that was competitive with other means of transport. Furthermore, significant time reductions were made possible by this new railway infrastructure. This is how the duration of journeys made by the fastest trains reduced between 1967, 1986 and 2017 for Madrid–Barcelona from 11 h to 6 h 30 min to 2 h 30 min (HSL 621 km), at an average speed of 242 km/h; and for Paris–Marseille from 4 h 52 min to 3 h 50 min and 3 h 5 min (HSL 752 km), at an average speed of 246 km/h. Subsequently, and especially in France, the usefulness of HSL was challenged as state budget resources decreased. Increasing costs aggravated by the state's increasingly weak support and public objection to high-speed railways would become an increasingly important parameter in determining whether new projects would be launched or not. In Spain, criticism emerged much later than in France. The 2008 economic crisis and the emergence of the radical left-wing party Podemos constituted the first truly significant challenges to high-speed rail. In general, for these two countries, cost inflation since the first implementations is based not only on overall inflation but also on growing awareness of countryside integration and environmental protection, which can greatly increase the costs of infrastructure.

The environmental issue must encourage the development of heavy-duty railways, which are much less polluting than road travel, and especially air travel (passenger per kilometre; Bonnafous 1999). However, the flexibility of road travel, which allows it to serve all territories without the load being interrupted, and the commercial speed of air travel to bridge the distance between large metropolises have greatly challenged the outdated and uncompetitive train, so much so that environmental aspects are discredited. However, alongside fossil-fuel powered trains still operating using fossil fuels along non-electrified lines and that emit contaminating gases into the atmosphere, most traffic is provided by electric locomotives that do not pollute the air. But the debate is shifting to the production of this electrical energy, and in certain countries it can come from coal, oil and/or nuclear to

different extents. Currently, as the vast majority of electricity used in France does not come from renewable sources, the defenders who lobby in favour of road and air travel criticize trains because, even if it is not always the case, it consumes energy from nuclear sources, while strongly supporting the development of the electric car that operates using the same energy. Even if scientific analysis highlights the environmental advantages of rail travel, popular opinion does not see it this way, because HSL projects are more and more stigmatized as being detrimental to the environment and in particular due to the damage caused to landscapes and different biotopes. This environmental criticism of high-speed rail is also a societal and ideological dispute because these important projects above all favour large public works groups (Wolff Jean-Pierre 2016). These strong reactions have been expressed much more in France than in Spain. No matter what precautions are taken, the construction of an HSL, just like a motorway or an airport, inevitably affects the environment and landscapes. However, when construction and maintenance of infrastructure is taken into consideration, the polluting emissions per passenger/km are 255.114 and 7 geqCO$_2$ or 36 times lower for HST than for aeroplane 16 times less than car (Mathieu, Pavaux and Gaudry 2012). But the line and the number of road structures (bridges, viaducts, embankments and trenches) do not only impact construction costs but also (and especially for environmental defenders) the landscape. The infrastructure consumes a lot of space: a dual carriageway 34 m in length; a divided highway, 25 m; a standard two-lane road, 10–15 m; a single-lane railway, 6 m; a double railway 10 m; an HSL 14 m; an HSL on an embankment, 10–15 m in height with 80 m of ground coverage; and for airports, several hundred to thousands of hectares (the Notre Dame des Landes airport project, 1650 hectares).

There are also the processes of 'nimbysation' that are fed as much by the consequences of a project as much as ideologies and policies that may lead to conflicts of varying degrees depending on local associative and political mobilizations (Lolive 1999). The environment is holding more and more major infrastructure projects hostage, blocking, delaying or cancelling certain ones for which the socio-economic usefulness is not to blame. In general, motorways have provoked much less opposition than HSLs. Should we see this as a simple time lag in understanding of environmental and landscape devastation caused by these implementations or the effects of a power imbalance between the lobbying, on one side car manufacturers and public works and on the other the stakeholders in the railway system? It is also symptomatic to see a railway service and/or the railway infrastructure dismantled after a motorway is put into operation. Let us remember that with the complete opening of the A75 motorway in 2010, the decline of railway services accelerated, plunging the Clermont-Ferrand–Béziers and Clermont-Ferrand–Nîmes lines into a state of general neglect, a forerunner of a planned closure. In the name of respect for the environment, populations would be entitled to demand maintenance and improvement of existing railway lines when motorway infrastructure is implemented that doubles it. This right should be written into the constitutions of all European countries, to give populations the choice between two very different modes of transport and to conform to the environmental policies supported by the European Union or international examples such as the COP21. In Spain, the

single-rail, non-electrified Madrid-Aranda de Duero–Burgos line, a route also served by the free A1 motorway, has caused the abandonment of the latter due to the railway links between Madrid and Burgos in favour of the Madrid–Valladolid–León HSL. Without awaiting the opening of the Almeria-Murcia motorway in 1992, the railway line between these two towns was closed in 1985 as part of the state railway line closure programme. In these four cases, the State's choice is clear. By opening a free motorway and no longer investing in railway infrastructure, short- to mid-term abandonment of the railway line is guaranteed. This type of situation is unthinkable in a country like Switzerland where railway culture and recourse to referendum for all projects, and in particular those linked to transport infrastructure, guarantee not only the survival but also, beyond this, the development of less important lines.

Finally, with regard to the ideological plan, we can observe situations there that are also very varied according to the temporality and the country. The development of a high-speed railway, first of all in Japan and then in France, was done thanks to the preponderance of the scientific technocracy, encouraged by even more powerful states at the end of the Trente Glorieuses. Ideologically, we can speak first of all not only of support but also of a political and social demand for high-speed railways, a guarantee of economic development. In Europe, high-speed railway was chosen at the end of a cycle of prosperity and it was implemented during a period marked by various economic crises with significant social consequences, with a sharp increase in unemployment and the first disruption to the belief in unlimited scientific and technological progress. In France, faced with the difficulties of improving railway speeds based on technology at the time, a new technology based on rail and air travel was tested on an experimental section, 18 km to the north of Orléans. It was an Aerotrain invented by Bertin, which then inspired Maglev trains. Despite the speed of 417 km/h, reached in 1974, the Bertin aerotrain would very quickly be abandoned in France due to issues surrounding insertion in urban areas, because it circulated on a concrete rail supported by pylons around 10 m high, and above all because of the SNCF's (Société nationale des chemins de fer français) opposition. The organization said it would not support the development of an innovation in which it did not have the initiative (Fourniau 1988). The reticence of SNCF engineers when faced with this innovative technology pushed the national company to revolutionize their trains, inspired by the Japanese Shinkansen. This era, which basks in unlimited progress, little by little is being even more often called into question by scientific and technocratic expertise that condemn the projects of nuclear power plants, the creation of large-scale road and motorway infrastructure in urban areas and generally all types of imposing transport infrastructure. Nevertheless, the dispute will be very different depending on the country and region, as we will illustrate in our development.

It is obvious that the geographical, environmental, economic and ideological elements interfere more or less with one another in infrastructure projects. But two parameters play a decisive role, namely the issue of finance and political will. In the absence of these two elements, the projects have no chance of coming to fruition. Nevertheless, it is still necessary to have the political will to support them. An HSL

project in the lowlands, which is inexpensive due to its route and its implementation, will never come to light if there is no political will uniting the stakeholders with different interests to defend it and undertake it. Meanwhile, relatively expensive projects will be carried out following strong engagement of all involved stakeholders.

15.3 HSLs: Spain's Late Catch-Up and the End of France's Supremacy

Even if we only study the HSLs, we can recall the main characteristics of motorway infrastructure, and from this we can learn some lessons to be applied to the high-speed railway network. In fact, in 1970 the situation of motorway networks (Spain with 200 km and France with 1540 km) was very different to that of other networks (Germany with 4450 km and Italy with 3900 km). For HSLs, the situation was very different. The high-speed technology developed in Japan in the 1960s with the inauguration of the Shinkansen in 1964 on the Tokyo–Osaka line was taken up in Europe and particularly in France in 1981 with the first journey of the first HSL, the Lyon–Paris line (Lamming 2012). Nevertheless, with the end of the Franco regime in 1975, joining the European Economic Community in 1986, which would become the European Union in 1993, and the steady modernization of Spain, the first LGV (Ligne à grande vitesse) was put into service in 1992, between Madrid and Seville, for the Universal Exposition that was held in that same year in the Andalusian capital. That is 11 years after its appearance in France, which is little considering the challenges that Spain was already facing in terms of catching up with the level of motorway networks and airport infrastructures, which were essential for the development of a key sector for the economy at that time: tourism.

   In both states, after an all-car policy with the implementation of an important motorway network, Spain (16,200 km) and France (12,000 km), rivalling and largely exceeding for Spain those of two pioneer states—Germany (13,000 km) and Italy (6500 km)—the priorities in the matter of infrastructure moved towards high-speed rail. Currently, the HSL network in France (Fig. 15.1) like in Spain (Fig. 15.2) is centred around Paris and Madrid. The political will that established high-speed rail is very strong and it is still currently present in Spain, whereas in France it has been greatly dampened. The finding offered on classic rail travel that it could no longer rival competition from cars for short and medium distances and aeroplanes for mid-length routes has encouraged the emergence of high-speed rail to counter mainly air travel. The tunnel effect, with few or no stops between two cities, a journey time of close to 3 h maximum and on-board service reminiscent of that of classic major airlines, allowed competition with aeroplanes with near disappearance of flights between Madrid and Barcelona, Seville, Valencia and Zaragoza in Spain, and between Paris and Brussels, Geneva, Lyon, Marseille, Nantes, Rennes and Strasbourg in France. High-speed railway travel is equally developed for short and

Fig. 15.1 The French high-speed line railway network in 2017 (RFF (Réseau ferré de France) and SNCF (Société nationale des chemins de fer français) network)

medium distances, reducing journey times in metropolitan regions in a very noticeable way by complementing renovated regional railway services.

In France and Spain, a policy was put in place to set a framework for developing high-speed rail. After the first HSL was implemented in France, in 1992 the state launched the Schéma directeur national des LGV ('National High-Speed Line Policy'), the aim of which was to provide the territory with fast connections, both by road and rail (Bellet and Gutiérrez 2011). The aim set was that all citizens would find themselves at a maximum of 1 h or 50 km from access to a motorway or an HST railway station. First of all, 3500 km of HSL are planned but without a temporal or financial framework in which to complete them. The aim for this period is to provide France with 16 HSLs, with a total of 4700 km upon completion. Within this context, we can also mention a project that was subsequently largely contested and for which a recent episode has just occurred. The Inter-Ministerial Committee for Regional

Fig. 15.2 The Spanish high-speed line railway network in 2017 (ADIF (Administrador de infrae-structuras ferroviarias))

Development (the *Comité interministériel d'aménagement du territoire* or *CIADT* in French) of 1992 had selected the Bordeaux–Toulouse–Narbonne HSL project. This high-speed rail link was known as the 'Two Seas HSL'. This link drew the attention of the Aquitaine, Languedoc-Roussillon and Midi-Pyrénées regions. But during the Inter-Ministerial Committee for Regional Development and Competitiveness (CIADT) of December 2003, the project was revised downwards, and only plan for an HSL between Bordeaux and Toulouse was kept (Castan 2008). Beyond this down and until Narbonne, only an improvement in existing infrastructure was kept. This objective, removed by governmental choices at the time, was based on the prohibitive costs of the eight HSLs that were planned.[2]

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[2] It involved the following HSLs:

- Rhin–Rhône (Dijon–Mulhouse)
- South-Europe–Atlantic (Tours–Bordeaux–Spain)
- Brittany–Pays de la Loire
- Est (second phase and interconnection with the German ICE network)
- Catalonia–Italy (Perpignan–Figueres, bypassing Nîmes and Montpellier, HST towards PACA and Nice)
- Lyon–Turin
- Bordeaux–Toulouse
- Interconnection of HSTs with the south of the Ile-de-France

The National Plan for Transport Infrastructure (*Schéma national d'infrastructure des transports* or SNIT in French) created in 2010 within the framework of the Grenelle Environment Forum[3] planned the creation of around ten HSLs to be put into construction before 2020, of which only three were started and were completed in 2017 (Bordeaux–Tours, Le Mans–Rennes and Nîmes–Montpellier). All the others were completely abandoned or suspended and one is in a very precarious situation (Bordeaux–Toulouse). The SNIT was called into question in 2012 with the arrival of a new left-wing presidential majority. To bury the railway section of the Grenelle Environment Forum, the Duron Commission in 2014, the Court of Audit and the government did not stop attacking the HSL projects, which were either suspended or totally buried. With the arrival of a new presidential majority around president Macron, even the Bordeaux–Toulouse line was called into question!

Before drawing an overall assessment of the development of high-speed rail in France, which we will present later, it is necessary to take stock of this network at the end of 2017. HSL construction began with the Lyon–Montchanin section in 1981, then Montchanin–Paris in 1983, allowing the Lyon–Paris link to be inaugurated almost 10 years before the first HSL in Spain, between Madrid and Seville in 1992. For these two countries, these two first lines constituted the first milestone in the development of high-speed rail in Europe. Looking at the opening dates, development took place first of all in France, with the opening of numerous HSLs until 2001, whereas in Spain after the first HSL was put into service in 1992, it was not until 2003 that other HSLs were implemented and since then one or two HSLs were opened on average every 2 years (Table 15.1). After 2017, in France, which saw the inauguration of three HSLs, all the other projects were suspended or buried.

Table 15.1 List of HSLs in France (RFF (Réseau ferré de France) and SNCF (Société nationale des chemins de fer français) network)

Route	Year
Paris–Le Mans	1989
Paris–Tours	1990
Lille–Paris	1993
Channel Tunnel	1994
Brussels–Lille	1997
Lyon–Valence	1994
Marseille–Valence	2001
Est HSL first phase	2007
Figueres–Perpignan	2011
Rhin–Rhône HSL	2011
Est HSL second phase	2016
Le Mans–Rennes	2017
Bordeaux–Tours	2017
Montpellier–Nîmes	2017

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[3] In this SNIT, 25 major projects, including several HSLs, were to be carried out within 30 years, but facing the predicted cost of 245 billion, many were very quickly postponed or abandoned.

Between 1981 and especially 1989 and 2001, numerous HSL inaugurations followed the commissioning of the Paris–Lyon line. Chronologically, we can mention Paris–Le Mans in 1989, Paris–Tours in 1990, part of the desire to develop and rebalance regions, then Paris–Lille in 1993, the Channel Tunnel in 1994, Lyon–Valence in 1994, Lille–Bruxelles in 1997 and finally Marseille–Valence in 2001, completing the Marseille–Paris link. These seven openings from 1989 to 2001 correspond to that very strong political will to provide France with an HSL network, relayed by all political parties and in particular by the environmentalists. The population sees a revival of the modernization of the country that had been called into question by the end of the *Trente Glorieuses*. This period is supported by the Pasqua Land Planning Law that, like Spain's plans, foresaw development that would bring high-speed rail closer to the population.

In Spain, the Ministry of Public Works and Transport[4] launched many transport infrastructure development schemes in order to modernize the country. These are the Railway Transport Plan (*Plan de Transporte Ferroviario*), the Executive Plan for Infrastructure (*Plan Director de Infraestructura* or PDI), the Strategic Plan for Infrastructure and Transport (*Plan Estratégico de Infraestructura y Transporte* or PEIT) and the Plan for Infrastructure, Transport and Housing (*Plan de Infraestructuras, Transporte y Vivienda* or PITVI) (Ministry of Public Works and Transport 2012). This stack of plans produced a significant change to the Spanish railway network.

The *Railway Transport Plan* of 1987 not only corresponds to that desire to save the railways from air and road travel, but also more specifically it responds to the backlash from the Spanish people following the abandonment of around a thousand kilometres of railways in 1985. As in other European countries, the closure of these railway lines was caused by trains' lack of competitiveness, due to the lack of interest provided by policies to railways. It was a question of slowly modernizing certain classic lines with electrification, the doubling of certain single-track lines and/or rectifying the section to raise the commercial speeds of passenger trains on the most important routes (Villalón 2017).

The 1993–2007 Executive Plan for Infrastructure by the Ministry of Public Works, Transport and Environment sought strategic planning of transport by highlighting a comprehensive and multimodal approach to transport infrastructure.

The Plan for Transport Infrastructure, under the responsibility of the Ministry of Public Works and Transport (2000–2007), highlighted the development of high-speed rail, 8 years after the inauguration of the first HSL between Madrid and Seville in 1992. The HSL and railway projects received the most significant part of investment compared to other transport infrastructure, namely 42.8% compared to 25.1% for roads, and the rest divided between airports and ports (Ministry of Public Works and Transport 2000–2007).

The Strategic Plan for Transport Infrastructure was settled to cover the 2005–2020 period and in particular it planned the implementation of 10,000 km of HSL by

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[4] This ministry is in charge of public works.

2020, inscribed in four major objectives: economic development, strengthening of social and regional cohesion, environmental improvement and safeguarding transport services. For the Ministry of *Fomento*, in the Strategic Plan for Transport Infrastructure, transport infrastructure is considered as an essential support that allows people to have access to high-quality transport and, at the same time, to an effective instrument in encouraging economic development and regional cohesion.

The Plan for Infrastructure, Transport and Housing takes over from the Strategic Plan for Transport Infrastructure and runs over the 2012–2024 period, taking two important elements into account. The first is linked to the severe economic crisis that affected Spain since 2008 and the second to the new definition of the Trans-European Transport Networks (TEN-T) decided upon in December 2013, which modified the plans defined during the European summits held in Corfu and Essen in 1994 (Boira i Maiques 2010). This is a streamlining of investments in infrastructure that does not question them but spaces them out over time to take the country's difficult situation into account in the economic and social plan.

Even if this proliferation of plans, which often corresponds to political and governmental changes with alternation between the Spanish Socialist Workers Party (*Partido Socialista Obrero Español* or PSOE in Spanish) and the People's Party (*Partido Popular* or PP in Spanish), has had the consequence of delaying many projects, there remains a very strong desire to modernize Spain by constructing new infrastructure. In fact, while presidents Aznar, Zapatero and Rajoy had deeply entrenched political positions on social matters, the fact remains that they have always enthusiastically defended the high-speed policy, in their eyes a guarantor of Spain's overall success in the European context (López Escolano 2017). Spain's determination to overcome its delay in terms of airport, motorway, rail and port infrastructure, to accelerate its economic development and to increase its people's quality of life has been clearly displayed since the end of the Francoist regime. European funds play an important role in these modernization programmes and the creation of new infrastructures, allowing it to rise in just a few decades to the highest place on the European ladder for the length of the motorway and HSL networks (Audikana 2011). For Germà Bel (2010), this model of infrastructure development is based on a purely administrative logic relating to regional development, leading to serve all provincial capitals (the equivalent of a *département* in France) and by being linked to a motorway system and a high-speed railway. With the 2008 crisis, more and more opponents came forward facing a certain overbidding in terms of transport infrastructure, some of which are little used (motorways and HSLs) or not open to the public (airport; Lois González and Pazos Otón 2015). During the autonomous communities' electoral campaign in 2007, in a speech Rajoy made in Badajoz, he reaffirmed this desire to reach all the provincial capitals with HST and at 350 km/h, as other politicians belonging to the main political parties after the end of the Franco regime had done before him, albeit in different contexts (Cruz Villalón 2017).

Spain's situation in terms of high-speed rail is notable for the inauguration of three sections of HSL in 2015, which will be completed in coming years by other openings (Tables 15.2 and 15.4). Unlike France, at the end of 2017, the HSLs are

Table 15.2 List of HSLs in Spain (ADIF (Administrador de infraestructuras ferroviarias))

Route	Year
Madrid–Seville	1992
Madrid–Lleida	2003
Huesca–Zaragoza	2005
(Madrid)–La Sagra–Toledo	2005
Lleida–Camp de Tarragona	2006
Camp de Tarragona–Barcelona	2008
Córdoba–Málaga	2007
Madrid–Valladolid	2008
Madrid–Valencia	2010
Figueres–Perpignan	2011
La Coruña–Ourense	2013
Albacete–Alicante	2013
Barcelona–Figueres	2013
Valladolid–Zamora	2015
Valladolid–León	2015
Vigo–Santiago de Compostela	2015

under construction and others are in planning stages, and therefore here we present a progress report on the network that will be gradually redone in a few years for new implementations. After having opened the first line between Madrid and Seville in 1992, around 10 years later a long series of developments began, firstly with the inauguration of the Madrid–Lleida HSL in 2003, the start of the HSL towards Barcelona, which began operating in 2008 following the implementation of the Lleida–Camp de Tarragona and Camp de Tarragona–Barcelona lines in 2006, and which would very quickly replace the first HSL in terms of passengers. Two short HSLs were inaugurated in 2005: one is La Sagra–Toledo (20 km), which branches off the Madrid–Seville HSL, and the other is Huesca–Zaragoza (80 km). It has a single rail and is often laid close to the classic Iberian gauge line (1668 m). The Córdoba–Málaga HSL was opened in 2007, making Málaga the first Mediterranean port to be connected with Madrid, before Barcelona and Valencia. In 2008, the Madrid–Valladolid HSL began operating, 2 years before the Madrid–Valencia HSL in 2010. Then the Figueres–Perpignan line opened in 2011, allowing a cross-border link that preceded the opening of the Barcelona–Figueres HSL, which opened in 2013. In this same year, two HSLs were inaugurated. The first (Albacete–Alicante) offered a new Mediterranean rout to Madrid, and the second is the first stage of the high-speed line in Galicia, with the La Coruña–Ourense HSL, a section that is not yet linked to the HSL network, but that will without doubt be connected in 2020. In 2015, three lines were opened in the west of the Iberian Peninsula: Valladolid–Zamora, Valladolid–León and Vigo–Santiago de Compostela, connected to the La Coruña–Ourense HSL.

Table 15.3 gathers the opening dates of HSLs constructed in Spain and France in just over three decades (1981–2017). We have grouped HSL inaugurations into five major periods to facilitate a dynamic and comparative reading of the development

Table 15.3 Delays and catch-ups in HSL development (ADIF, RFF and SNCF network)

Lyon–Montchanin	(1981):		
Montchanin–Paris	(1983):		
Le Mans–Paris	(1989):		
Paris–Tours	(1990):		
Lille–Paris	(1993):	Madrid–Seville	(1992):
Channel Tunnel	(1994):		
Lyon–Valence	(1994):		
Brussels–Lille	(1997):	Madrid–Lleida	(2003):
Marseille–Valence	(2001):	Huesca–Zaragoza	(2005):
HSL Est first phase	(2007):	Lleida–Barcelona	(2006):
		Madrid–Valladolid	(2007):
		Seville–Málaga	(2008):
		Madrid–Valencia	(2010):
Figueres–Perpignan	(2011):	Figueres–Perpignan	(2011):
Rhin–Rhône HSL	(2011):	La Coruña–Ourense	(2011):
		Motilla–Alicante	(2013):
		Barcelona–Figueres	(2013):
		Olmedo–Zamora	(2015):
Est HSL second phase	(2016):	Valladolid–León	(2015):
Le Mans–Rennes	(2017):	Vigo–Santiago de Compostela	(2015):
Bordeaux–Tours	(2017):		
Montpellier–Nîmes	(2017):		

Table 15.4 List of HSLs in Spain under construction and planning (ADIF)

Basque Y
León–Oviedo
Ourense–Zamora
Burgos–Palencia
Badajoz–Plasencia
Antequera–Granada
Alicante–Valencia
Tarragona–Valencia
Logroño–Pamplona

of the high-speed networks in both countries. The first phase only includes a development done in two stages in France, with the Lyon–Montchanin section in 1981 and Montchanin–Paris in 1983, giving birth to the first Paris–Lyon HSL, which marked the birth of high-speed rail in Europe. The second period saw the implementation of an HSL network departing from Paris, then successively Le Mans–Paris in 1989, Paris–Tours in 1990, Lille–Paris in 1993, and the Channel Tunnel and Lyon–Valence in 1994. The first Spanish HSL, Madrid–Seville, which was inaugurated in 1992, is included in this second group. In the third period, alongside the continuing openings in France with the Brussels–Lille HSL in 1997, Marseille–Valence in

2001 and the first phase of the Est HSL, we can identify the beginnings of a network in Spain with Madrid–Lleida in 2003, Huesca–Zaragoza in 2005, Lleida–Barcelona in 2006, Madrid–Valladolid in 2007 and Seville–Málaga in 2008. The fourth phase involves Madrid–Valencia in 2010 and Figueres–Perpignan, the Rhin–Rhône HSL and La Coruña–Ourense in 2011, which saw the continuation of the implementation of an HSL network with the construction of a trans-border section between Perpignan and Figueres. The fifth and final period includes the following HSLs: Motilla–Alicante and Barcelona–Figueres in 2013, Olmedo–Zamora, Valladolid–León and Santiago–Vigo in 2015, the second phase of the Est HSL in 2016, and Le Mans–Rennes, Bordeaux–Tours and Montpellier–Nîmes in 2017. This last period demonstrates sustained development of HSLs in the two countries, but it does not indicate that it is the end of HSL in France, at least for a more or less long period of time, while in Spain numerous works continue and projects are being studied and selected.

In 2017, Spain had 3240 km of HSL and 1500 km are either under construction or in planning stages.[5] Meanwhile, France only has 2690 km and nearly all the projects that had been selected, some since 1992, have been abandoned or suspended awaiting decisions that are ever more delayed in arriving. Not only has Spain caught up, but also it has largely surpassed France in terms of high-speed rail services. The lack of French governments' political will for almost the last 10 years and the SNCF's reluctance to launch new projects due to its 45 billion euros of debt have led to cities such as Toulouse and Nice and their one million inhabitants being left behind, while smaller towns, such as Valence, Avignon, Laval, Reims and Besançon, to name just some of these small-to-medium settlements situated on existing HSLs, benefit from high-speed rail (Facchinetti-Mannone 2010).

15.4   Overtaking and Divergences Between Spain and France

By looking more carefully at the development of the first HSL in each country, we realize that their political will is not constructed on the same foundations. In Spain, the state has chosen to firstly link Madrid and Seville, and not the two economic capitals, Madrid and Barcelona. However, the Olympic Games given to Barcelona by the president of the International Olympic Committee, the Catalan Juan Antonio Samaranch (1980–2001), a native of the city, constituted an additional argument for the economic position of these two cities. However, the Andalusian capital was supported by the socialist president of the Spanish Government, Felipe González, who comes from the province of Seville, who had used all his political weight in favour of the success of the Seville Universal Exposition, and also for the development of this first HSL. Alongside this local support for Seville as the first destination of an

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[5] This text was written in 2018. It does not take into account the HSLs put into service after this date. In 2019 will be inaugurated Antequera–Granada (122 km) and Venta de Baños–Burgos (87 km).

HSL in Spain, politically the Spanish state recognized the historic debt that it had to Andalusia. Through this investment, it tried, to an extent, to make its absence in the development of this southern province forgotten, after leaving it behind for far too long. The aim was to boost the Andalusian economy, which lagged far behind other regions of Spain. On the other hand, the first HSL in France connected the two main economic centres—Paris and Lyon—which were strengthened to the detriment of less-developed regions. It was not until the development of the LGV Atlantique towards Mans and Tours that a policy of regional rebalancing and economic catch-up was put in place, with the creation of an LGV that would participate in the development of the Atlantic coast.

If we evaluate the first Spanish LGV, Madrid–Seville, inaugurated in 1992, we realize that it has transported 74 million passengers in 25 years, of the 357.5 million users of the entire Spanish LGV network. This figure may seem significant, but it should be carefully re-evaluated when we compare it to the 52.3 million travellers who have travelled on the second LGV, Barcelona–Madrid, in just 9 years since it opened in 2008, that is, 16 years after the Madrid–Seville line. In Spain, it is the Barcelona–Zaragoza–Madrid LGV that is by far the most profitable. The others are in a much less healthy situation. The profitability of this LGV has further increased because between February 2016 and February 2017, numbers of users increased from 6.3%, compared to the previous period, with more than 7.47 million users, that is, 440,000 more than the previous year. More precisely, 3.8 million passengers have travelled the Barcelona–Madrid direct route.

Transport infrastructure is part of ecological, environmental, ideological and societal approaches, while being highly dependent on their costs and their socio-economic impacts on the people and regions concerned. Amongst these elements, sustainability (both environmental and financial) is more and more highlighted, both by citizen associations and communities. Infrastructure and, in particular, projects are more and more often instrumentalized by different pressure groups. The perception of these issues is overall still very different between these two countries, for historical reasons of economic catch-up, and this is particularly true for LGV projects.

Over the last 20 years, new LGV projects have been criticized in France for a series of reasons, defending private interests as well as natural environments or anti-globalization ideologies. The infringement of property rights and the inconvenience of LGV in its immediate environment reinforce the process of 'nimbysation' (Sauvée 2000), fuelled by the controversies provoked by the damage caused to the countryside by such major infrastructure. But more recently, these projects have been criticized in terms of costs and their socio-economic profitability, not only by anti-globalization and environmental associations but also by the state and SNCF, which suffers from dizzying debt. SNCF's position is understandable because the state requires it to return to a state of financial balance while renovating the main lines on the traditional network, but without wanting to lighten the weight of its debt nor giving it the same tools that other modes of transport have. Despite its words at the COP21, the state is more or less abandoning railways, leaving them adrift to be liberalized. After the left's return to power in 2012, reluctance was instilled in the

highest levels of government with regard to railway projects. The Ministry for the Environment's abandonment of the 'ecotax' for heavy-goods vehicles in 2015, the flagship measure of the Grenelle Environment Forum voted for by all the deputies in 2009 and that was supposed to come into force in 2014, is one of the greatest failures of public policy in France. It was a huge challenge to the decisions of the COP21 by France (Plancher 2011).

Under the Hollande presidency, HSLs, which had only been challenged by environmental, third-world and special interest groups, received an unexpected boost to their difficult financial situation and above all to faltering will from the state. But with the government's step back from railway transport, the € 3.3 billion motorway relaunch plan was promoted in 2015, and the new motorway construction plan in 2015, brought by Vinci. France's turnaround in favour of roads reinforces its defeatist attitude towards railroads, and contrasts with that of Spain, which is building HSLs for the next century (Bellet, Alonso and Casellas 2010). There is also a very clear opposition between the two countries, namely Spain's consistency in continuing to develop HSL, despite budgetary difficulties that are much more severe than those in France. Spain is holding onto the developing projects selected by various governments through the successive plans handed down to promote public transport, unlike France that has abandoned almost all its commitments under a left-wing government, after getting carried away with promoting HSL and urban public transport such as tramways, and is restrained by the laws of the Grenelle Environment Forum under a right-wing government. This is not to mention what has been happening since the election of Emanuel Macron to the presidency in 2017. He announced that, in order to restore public accounts, all ministries and also communities will have to economize substantially, and that this will be done to the detriment of environment and public transport, in particular rail. We should recall that Emanuel Macron liberalized public road transport with the hope of destabilizing the regional, interregional and national railway network, due to its high costs that are borne solely by the SNCF, unlike coaches that use infrastructure without paying all the charges due.

In this area, Spain, which is developing a high-speed network with still-fragile socio-economic profitability, is maintaining its course in favour of this mode of public transport, the effects of which will be part of temporalities that go beyond the century. This desire to serve all the provincial capitals may seem extreme, but it is part of the European recommendations on the matter of reducing atmospheric pollution and limiting the use of congested road networks. So eventually, if a swing towards cars, intercity coaches and aeroplane comes above, this effort will not have been in vain in terms of the environment, safety and socio-economic development. Many HSLs are under construction and others are in planning stages (Table 15.4).

For now, HSL as a whole, both in France and in Spain, is made solely for passenger traffic, but now the circulation of freight trains is no longer a taboo on certain HSLs, in particular on those that are not saturated by high-speed passenger train circulation. The question of freight is posed in both countries. It is indirectly linked to the development of the LGV network, consuming possible investment in railway, and to the national policies facilitating road travel through the significant extension

of motorway networks. In fact, railway freight in Spain (5%), like in France (9%), represents a very small part of overland freight compared to the road's great supremacy, and it is very far behind the market shares recorded in Germany (23%) or in Switzerland (40%). Nevertheless, this country adopts the objectives of the *White Paper* (European Commission 2011) in which, by 2030, 30% of freight travelling distances greater than 300 km must be carried by rail, and at least 50% by 2050. This seems difficult to achieve, but Spain, which has always been a star European pupil, is investing in rail and in particular in HSL, while failing to do the same for the conventional network in order to increase the share of freight (Albalate and Bel 2011). Between 2007 and 2013, the European Union has granted Spain € 4.4 billion euros, 95% of which were assigned to HSL construction. During the same period, the European Union only granted € 645 million to France, which has been used for various projects, not just HSL projects (Cour des comptes européennes 2016). After these investments in passenger transport, Spain is showing a willingness to transfer some of its road freight to rail and maritime cabotage. Despite some significant delays, the Mediterranean corridor is a relevant example of this. Since its beginning in the 1920s, it has been part of the development of goods traffic and more specifically transporting citrus fruits towards France and other European countries. Nowadays, freight is still a reason for constructing this Mediterranean corridor, but the development of passenger transport has become a priority imposed by the vigorous urbanization of the Mediterranean coast compared to the rest of Spain. However, for reasons that are not only economic but also political—on the one hand, the representatives of the central state defending the Madrid HSL railway to reinforce this functional and institutional unity of the country, and on the other hand, stakeholders from Autonomous Communities, cities and major economic groups with various interests, diverging and/or converging on certain points—the tensions are significant. This Mediterranean corridor is suffering from the consequences, and its development is advancing slowly (Boira i Maiques 2010).

As for France, its geographical position is very different from that of Spain, and the issues are not the same. It is integrated into the European market, connected by a network of motorways, conventional railway lines and HSL to London, several cities in Benelux, Germany and Switzerland, which guarantees its function as a crossroads, unlike the Iberian Peninsula that is on the fringes of this economic Europe. It occupies a strategic geographical position that it uses depending on its interests, without particular concern for its neighbours. An illustrative example of this point involves the interruption of high-speed rail's continuity in the South of France, due to a lack of political will from French governments, who advance very slowly in projects of such importance, not only for the region of Occitan and Spain, but also more generally for European construction. Linking French and Spanish HSLs, on one side between Montpellier and Perpignan and on the other between Bordeaux and Irun, seems to be self-evident, for both economic and human reasons (Fig. 15.3). This blocking by France seriously impacts the full integration of the Iberian Peninsula, and this is partly reflected by dense traffic of heavy-goods vehicles at the two motorways crossing each end of the Pyrenees (10,000 trucks per day
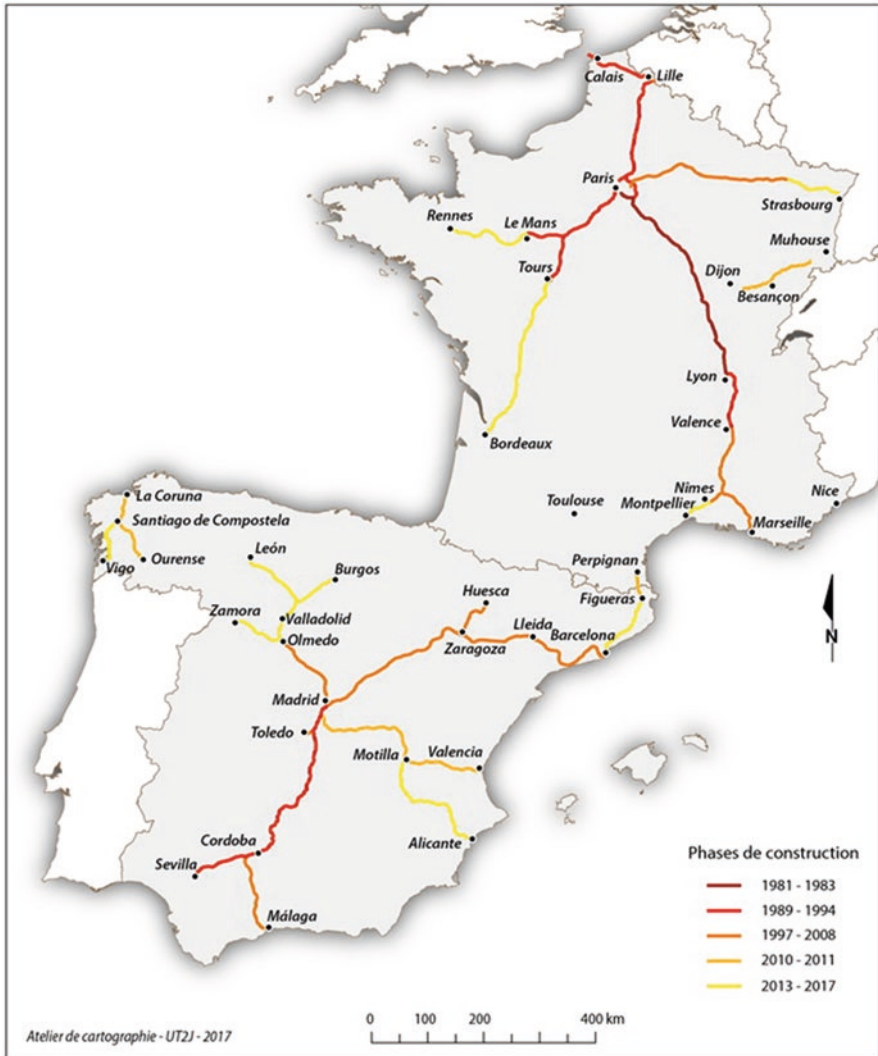
Fig. 15.3 HSL openings in Spain and France: the situation in 2017 (ADIF, RFF and SNCF network)

for each of these routes),[6] negatively impacting the environment and the safety of these roads.

Another difference between the two countries involves the implementation of HSL projects. In France, if strong hesitations are put forward, the project is immediately stopped awaiting better days. In the same situation, Spain will begin the

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[6] Pyrenees Traffic Observatory.

works with an extended schedule and a reduced scope. For example, for the Venta de Baños–Burgos HSL (87 km), which will be operational in 2019 with a single track instead of the two that were planned, all the structures are calibrated to receive the second rail when finances allow it, or when it becomes necessary. Between Valladolid and León (85 km) on the Valladolid–Palencia–León HSL (165 km), opened in 2015, only the infrastructure is planned to accept a double track. In France, the construction of an HSL cannot be conceived unless a double track is selected from the start and then constructed. If there are insufficient returns on a project, it is immediately abandoned. The ADIF and the SNCF are opposed in two antithetical viewpoints, as are the technocratic and political powers of these two countries in a determining role for this high-speed railway policy. Spain, precisely to make high speed available to numerous towns, does not hesitate to demonstrate greater flexibility in terms of technical standards that seem sacrosanct.

This is how, with the 2008 crisis, the works have been staggered to reduce financial pressure. One of the most revealing examples of this, alongside LGV, involves the development project for the new large multimodal station of La Sagrera in Barcelona on the LGV that links the Catalan capital with Perpignan. Upon completion, this station should replace Barcelona Sants as the city's main station, but the works were suspended for many years following the economic crisis. In 2017, this large, phantom project began to gradually restart. There is no similar situation in France. When the decision to build a station is taken in the study phase of a project, it will be carried out, even if it can be considered as useless, badly conceived or very badly located (Montpellier LGV). The position of the French state and the railway technocracy is very focused on what should and should not be carried out; it is a tautological vision of railway.

By looking at the map of high-speed railway links in Spain and France, we realize that all the lines are very much centred around the capitals. Those that are not, or that are no longer this way, such as the Basque Y that is under construction or the Rhin–Rhône HSL, do not as of yet support significant traffic. The branch of this East–West HSL (south of Alsace and German-speaking Switzerland) towards Paris sees a much heavier volume of traffic than the South–North route, from Alsace and Germany towards Lyon and the Mediterranean, which had been the reason for implementing this HSL, which should have avoided Paris for the first time! (Datar 2012). For our analysis, let us add that unlike other European countries such as Germany, Belgium, the Netherlands and the United Kingdom, no HSL connects the Spanish and French networks. However, in 2011, a first HSL, Perpignan–Figueres, which was isolated at the time of its launch, symbolically crossed the Pyrenees through the Perthus Tunnel. It was not until 2013 that Perpignan was connected to Barcelona and the rest of the Spanish network. At present, and probably for another one or two decades, Perpignan remains isolated from the French network, because although the extension between Nîmes and Montpellier came into service in 2017, the construction of the missing section is no longer topical. On the Atlantic coast, although the Basque Y is 70% complete, the extension from Bordeaux towards the border is suspended, despite the conclusions from the Great South–West Railway Project (*Grand projet ferroviaire du Sud-Ouest* or GPSO in French), provided by

RFF and more or less abandoned by the socialist government in 2016. France is responsible for blocking the continuity of the high-speed railway. It is essential for Spain to be linked to the rest of Europe. France and the SNCF are abusing their key position to delay Spanish requests.

The willingness displayed in Spain, which materialized as the creation of HSL to serve mid-sized towns such as Granada, La Coruña and Toledo, and even those as small as Huesca, is totally absent in France. Even cities the size of Nice and Toulouse are today no longer guaranteed to be directly serviced by high-speed rail. It is a divide in the perceptions of high speed between the two states. In Spain, it is synonymous with development. In France, it is more and more often considered an economic burden, associated with SNCF's € 45 billion deficit in 2018.

Another distinction between the two countries involves the recourse to European financing and more generally the role that two states play in relation to the European Union. Both countries have a very different view of Europe. Since Spain's integration into the European Economic Community in 1986, Europe has been an essential point of reference, especially in terms of socio-economics, politics and ideology. Europe has largely helped Spain, as has been the case for countries that were in the same situation of lagging behind in development, compared to the standards embodied by the founding countries of the European Community. Spain has been able to acquire effective engineering to benefit from the consequences of the different European financing plans. France has an ambiguous position with respect to Europe, in which vestiges of the nationalist and isolationist policies of the Gaullist period persist both on the right and on the left of the current political spectrum. Spain was and continues to be a good student. In contrast, France often defies and mistrusts Europe. In terms of rail infrastructure, Spain claims the support it receives from Europe; meanwhile France wants to erase all references to this European financial aid from its railway projects. These two countries' positions towards Europe are also found at the heart of their national railway companies. From the beginning, SNCF has delayed the European policy of opening up the national network to other railway stakeholders, while at the same time it benefits from the liberalization of the European rail market through its subsidiary, Keolis. In 2014, SNCF controlled 8% of the regional market guaranteed by private companies in Germany (Mofair and Netzwerk 2015). Unlike SNCF, ADIF is involved in the opening processes wanted by Brussels.

Spain's massive investment in high speed is not only a response to its desire to modernize the country, but also to its involvement in a large European rail network, which involves the development of two missing segments, Perpignan–Montpellier and Irun–Bordeaux. The Spanish high-speed network was in part made thanks to Europe and this is made loud and clear. High-speed rail reinforces this Europeanization of Spain, just as the motorway network had done before. Spanish high-speed rail symbolizes this attachment to Europe and the values it holds since this country was integrated into it. This is undoubtedly the most important ideological divergence from France, in its use/management/recovery of high-speed rail in a European supranational design, underlining the desire of this country to insert itself more and more into this Europe under construction (Audikana 2012).

High-speed rail is also part of an important industrial policy, which can only be developed through the expansion of the interior market, and above all by the growth of exportation opportunities. In the 1970s, SNCF and ALSTHOM[7] came together to launch the train that was supposed to save railways from air travel. The high-speed train revived the declining railway industry and participated in the development of the network and the different speed records broken by trains, the latest being 574 km/h in 2007. This aimed to highlight the French railway technology developed by ALSTOM, which serves to showcase this French rail technology for exportation. During the successful rise of this train, almost no-one spoke out against it, even if some criticized the abandonment of the conventional network, which was sacrificed in the name of an all-HST network, which allowed SNCF to recover an economic dynamism that it had not seen before. In 1992, at the time of the opening of the Madrid–Seville HSL, Spain turned to France to obtain the high-speed trains that would connect these two cities. Then, Spain also contacted Germany for safety materials, and then to acquire SIEMENS high-speed trains, in this process of anchoring itself in Europe, which, with its financing, allowed the launch of the construction of the HSL network. Spain's policy of acquiring from two of Europe's major constructors allowed it to acquire technologies that it had not mastered.

In this industrial field, Spain is in the process of catching up as a manufacturer, discovering high-speed rail. This country is no longer content to buy foreign materials. It is now able to construct high-speed trains that in the mid-term can compete with other European equipment. Although France was far ahead of Spain, having already exported its high-speed train not only to this country but also to South Korea in 2004, to Italy for the new company *Nuovo Trasporto Viaggiatori* in 2012 and to Morocco for its first LGV in 2018, it is no longer alone in this export market. In fact, the final step for Spain is to also build equipment suitable for high speed thanks to the mobilization of a railway industry in full restructuring with TALGO[8] as the leader and CAF[9] as an outsider. Thus, in the latest call for tender, launched by RENFE to buy 30 new HSTs in 2017, the AVRIL model produced by TALGO was selected. While TALGO was best known for its carriages, which are adaptable to different track widths, and the development of the high-speed tilting train, this company had not yet manufactured an HST. Although TALGO was already well positioned in several foreign markets in terms of exportation, it has now also won the Mecca–Medina high-speed rail contract, with the delivery of 36 high-speed trains, and in 2017 it was pre-selected for the future London–Birmingham high-speed line (HS2). Of course, the merger between ALSTOM and SIEMENS in autumn 2017, in favour of the latter, announced further restructuring in the rail industry that in Spain could lead to a marriage between CAF and TALGO.

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[7] ALSTHOM created in 1932 and originally Als-Thom formed from Alsace and Thomson. In 1998, after many changes in the company's activities, the company's current name was adopted.

[8] TALGO, Tren Articulado Ligero Goicoechea Oriol, specializes in active and/or passive tilting trains.

[9] CAF, Construcciones y Auxiliar de Ferrocarriles, is particularly active in constructing metro systems, tramways and light rail.

All rail engineering benefits from the development of HSLs and the two countries have well understood the benefits of constructing an HSL network, giving national companies a domestic testing ground before tackling other international markets. In around 30 years, Spain has gone from being consolidation ground for German and French railway companies, to an export powerhouse of railway know-how, which was acquired in just a few years. Catching up and imitation are in full force in this industry. France is losing its supremacy in high-speed rail to other countries such as Germany, Spain and especially China. The end of HSL projects is likely to further undermine France's lead over its neighbours. The purchase of the Eurostar fleet within the framework of the renewal project, of which SNCF is the majority shareholder, after several years of blockage imposed by France and SNCF on the SIEMENS high-speed train, shows the decline of French stakeholders in the field of high-speed rail. This mistrust of exports is based on a challenge to this high-speed model in France by SNCF and the state. For Spain, constructing an extra thousand kilometres gives TALGO time to assert itself as a serious competitor in high-speed rail, and as a versatile railway stakeholder.

15.5   Conclusion

After having been the first to launch in European high-speed rail and having taken the lead over other countries, especially compared to Spain in the 1980s and 1990s, with the important project of weaving a web that reproduces the Legrand scheme of the nineteenth century, France is no longer at the top of European countries in terms of the length of its HSL network. Spain, which acquired its first LGV in 1992, imitates France's desire to have an HSL network centred around its capital, Madrid. It then very quickly caught up with France and now it largely exceeds it in terms of the length of lines built, both those under construction and in planning stages. While France has suspended its HSL programme, Spain is pursuing this voluntarist dynamic of meshing the national territory from its capital. While the HSL network in Spain spanning out from Madrid seeks, as was indicated by the former president of the council, José Maria Aznar, to 'sew Spain with steel cables', in France the last two governments have again turned away from the steel cables that give way to motorways and airports to connect several major cities such as Nice and especially Toulouse with Paris and the rest of Europe.

Ideologically, HSLs are part of different plans; if we leave aside the centralism of the networks, the French one is primarily economic while the other is essentially political–institutional through a very strong policy of development. This essential difference is reinforced by the institutional evolution that has taken place since the end of the Franco regime. High-speed rail and motorway infrastructures reinforce this unity of the state in a context where certain regions have very large margins of autonomy. The matter of economics is not forgotten, but it is based too much on the paradigm that still too often associates high-speed railways with local development without deepening the limits of an outdated model. In France, the situation has

completely changed in the last decade. The abandonment of HSL projects has replaced the enthusiasm of the last decades of the twentieth century, in the name of strict economic realities, rather quickly forgetting the economic and environmental externalities related to the development of the HSL network.

In Spain, in the name of this very strong policy of investment in transport infrastructure that above all aims to strengthen territorial cohesion, all provincial capitals are directly connected to Madrid by train with the exception of Teruel, capital of the province of the same name, which is located in the south of Aragón at the very low density of 9 h/km². From this perspective, it is not unthinkable that one day, like Huesca in the north of Aragón, this town will be linked to Madrid with a modernized, improved speed route. Despite the reservations they generate, HSLs are going to continue to reinforce the regional cohesion that the statute of autonomy puts at risk by granting all the autonomous entities the responsibility for regional development policies. HSLs returned order to this centrifugal tendency.

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Chapter 16
Regions, Nationalities, Nations? Contemporary Geographic Images of Spain's Regional Diversity

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Jacobo García-Álvarez

Abstract This contribution aims to review the ways in which geographers have represented Spanish regional diversity and cultural plurality since the 1870s, as well as the relationships between these geographical representations and the evolution of the territorial organization of the Spanish State. The chapter will focus on four different images and periods: (1) the contributions from the first modern regional geography (1876–1936); (2) the geographical image of Spanish regions during Franco's dictatorship (1939–1975); (3) the Spanish transition to democracy and the shaping of the Autonomous Communities map (1978–1983); and (4) the geographical perception of Spanish regional organization and the 'national' question in the face of the ongoing politico-territorial crisis linked to the rise of Catalan pro-independence movement. Within the framework of this last section, I raise several proposals for advancing a critical geopolitics of the State of the Autonomies.

Keywords Spain · Cultural plurality · National identities · Geographical imaginations · Regional geography · Territorial organization · Critical geopolitics

16.1 Introduction

The subject of this chapter is no minor issue, neither intellectually nor politically. On the contrary, the question of contemporary geographical images of Spain's regional diversity is inextricably linked to one of the greatest controversies in Spanish history and our current political situation: the problem of territorial

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organization. This problem here in Spain is usually referred to as the regional, national or simply territorial problem—the question, ultimately, of what the national identity of the Spanish people consists of and how that identity has been articulated, is being articulated or can be politically articulated into a State and sovereignty model that will be as widely accepted as possible. Whether Spain is a nation composed of nationalities and regions or is a plurinational State or, in the end, a nation of nations is not a purely academic or nominalist debate but one of the most crucial and relevant issues in today's political landscape, as the great—and still ongoing—crisis associated with the rise of Catalan pro-independence movement illustrates in exemplary fashion (Núñez-Seixas 2010, 2018; Morales-Moya et al. 2013).[1]

However, the purpose of this chapter is not to review the current Spanish political landscape, but to assess the way in which geography has represented Spain's internal cultural diversity since its emergence as a modern scientific discipline and its academic institutionalization, which in some European countries (though not in Spain) began during the last-third of the nineteenth century. More precisely, this contribution will address not only the manner in which geographers have explained and represented Spain's regional plurality but also the consequences of these representations for the evolution of the territorial organization of the State. I firmly believe that the history of geography in general, and that of geographical representations of territory in particular, can help us to comprehend the origins and evolution of the Spanish territorial problem, and I also believe that geographical thinking can and must contribute to the current debate on the national question in Spain by clarifying the country's spatial dimensions, making proposals and implementing actions that can help to resolve the current tensions, mitigate them or at least put them into perspective.

Given the breadth of the subject, my attention will focus on four issues and periods particularly relevant to the way in which geography has perceived Spanish cultural diversity, namely: (1) representations built by the first modern regional geographers of Spain (1876–1936), marked by environmentalistic or even deterministic approaches; (2) the geographical image of the Spanish regions during Franco's dictatorship (1939–1975); (3) the Spanish transition to democracy and the shaping of the Autonomous Communities map (1978–1983); and (4) the geographical perception of Spanish regional organization and the regional/national question in the face of the ongoing politico-territorial crisis (García-Álvarez 2002, 2016; García-Álvarez et al. 2000).[2] Within the framework of this last section, and to conclude this rapid and selective journey through the geographical imaginations of Spain's regional diversity, I will raise several proposals for advancing a critical geopolitics of the State of the Autonomies.

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[1] Two useful introductions to the 'national question' in Spain are: Núñez-Seixas (2010) and (2018). For a comprehensive historical review, see Morales-Moya et al. (2013).

[2] For a detailed analysis of the first three issues and periods mentioned above, see García-Álvarez (2002). For an overall review of the geo-history of the territorial organization of Spanish State, García-Álvarez (2016). Some ideas of the present chapter were firstly presented in García-Álvarez et al. (2000).

16.2 Representations of Regional Diversity in Modern 'Environmentalistic' Geography (1876–1936)

The first modern geographical image of Spain, that is, the first regional description of Spain inspired by modern geographical conceptions along the lines of Humboldt and above all of Ritter, can be found in the first volume of Élisée Reclus' *Géographie Universelle*, which covered southern Europe and was published in 1876.[3] Reclus was the first geographer to apply to the description of Spain two of the key principles of modern geography: the comprehensive vision of the landscape promoted by Humboldt and a characterization of the country in which, following Ritter's inspiration, the natural features are profoundly interwoven with the human, the physical environment with the social and geography with history. This interpretation is framed within a broader worldview of the relationships between society and nature, which can be considered as basically environmentalistic (rather than deterministic). According to this perspective, humans are a part of nature and, though ultimately a free beings, should not distance themselves from nature or disobey the laws and terms nature offers; instead, they should try to follow these and make the most of them, where possible, for the benefit of society.

Nature does not determine history but contributes significantly towards explaining it. According to Reclus, for example, the identity of a people, their material creations and their character and collective psychology are reflected in the landscape. Reclus also introduced a way of interpreting Spanish geographical diversity, which was to provide a kind of model or canon followed by many academic geographers, both Spanish and foreign, until practically the end of Franco's dictatorship. This is an approach that on the scientific level took the 'natural region' (or the 'historico-natural region') as a basis for geographical description of the country and on the political level supported the reform of Spain's territorial organization into a federal model based on the political recognition of the historical–natural regions.

Before explaining Reclus' regional vision in more detail, we should take into account that at the time this geographer was writing, Spain was divided administratively into 49 provinces constituted in 1833 as a part of the establishment of the liberal State, which was the political system that governed Spain (apart from a few brief interludes) from 1833 to 1931 (Burgueño 1996, 2011). Those provinces (50 since 1927), still in existence today, were essentially drawn up by subdividing the provinces of the Old Regime, which mostly coincided with the realms and principalities that from the Middle Ages onwards had gradually united to form the Spanish kingdom. For example, the 1833 division split the old principality of Catalonia into four provinces, the kingdom of Galicia into four, that of Aragon into three, that of Valencia into three and those of Andalusia and Granada into a total of eight. The division into provinces of 1833 (inspired by the departmental system of revolutionary France) established the main territorial foundation of the liberal State model, strongly centralist, and the former kingdoms and principalities were stripped of any

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[3] Reclus (1876). This work has been studied by Ortega-Cantero and García-Álvarez (2006).

Fig. 16.1 Historical regions (or 'old provinces') of Spain, according to the criterion used by the Royal Decree of 30 November 1833, which established the current provincial division

kind of administrative body they might previously have possessed save military organization. However, the liberal State either could not or would not entirely extinguish the memory of those old provinces whose administrative bodies it had suppressed. On the contrary, the images of the old provinces were maintained and even socially extended through the geography taught in schools, and these, towards the end of the nineteenth century, began to refer to the old divisions as 'historical regions' (Fig. 16.1).

More precisely, Reclus distinguished seven 'natural regions' in continental Spain, which really arose from the grouping together of the historical regions into the Iberian Peninsula as big morphotectonic and physiographic units, and to these natural regions he attributed more or less homogenous climates and landscape types (Fig. 16.2). As the outer limits of the large natural regions and those of the historical regions rarely coincide, Reclus and later geographers adopted an eclectic criterion, half historical half naturalistic, by means of which the old historical map was corrected on a local or provincial level to fit in with the large-scale units defined by physical geography.

> Populations seek their natural balance, and one of the main conditions of such a balance is respect for the boundaries drawn between provinces by the differences of terrain and climate, as well as the diversity of their customs which are the consequence of the former. It is therefore necessary to study each of these natural regions of Spain separately without
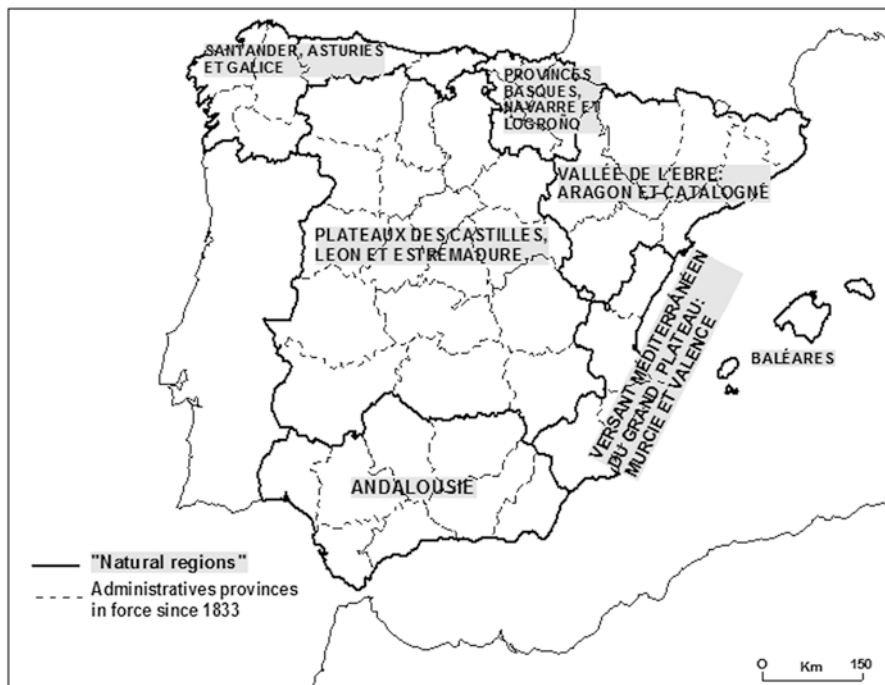
Fig. 16.2 Natural regions of Peninsular Spain, according to the division followed by Élisée Reclus (1876)

> taking into account the political and administrative divisions of the official provinces which have been drawn clumsily, neglecting the lines separating watersheds and the frontiers between communities speaking different dialects (Reclus 1876, p. 666).

Secondly, despite his identification of these large natural regions, Reclus also defended the value of the historical regions they contained, not only to attain a better geographical understanding of the country but also from the perspective of the politico-administrative organization of the State. Further, just as in other parts of his work he strongly criticizes the drawing of the political borders of the time, when describing Spain Reclus disregards the administrative provinces established by the liberal State, considering these to be as artificial from the geographical point of view as the departments in France.

In his opinion, which is quite in line with the territorial views of the Spanish federalism of the era, the country's political division into provinces stemmed from a most unfortunate and ill-judged centralism. This he held to be the enemy of local and regional freedoms, and a thing that concealed the true 'geographical nature' of the Iberian Peninsula, diverse naturally as well as culturally and economically, and that he thought should be reflected in a highly decentralized state model. Because, for Reclus, 'the geographical conditions of the Peninsula have so far opposed any free grouping of the inhabitants into a compact, solid national body', and, despite

increasing progress in the process of national unification facilitated by the political system, the progress of exchange, transport and communications, or the gradual replacement of regional languages by a single one, he found that 'Andalusians and Galicians, Basques and Catalans, Aragonese and Madrilenians are still very far from merging into one single nationality' (Reclus 1876, p. 665).

But, according to Reclus, the internal regional diversity of the country might give rise to one final and conceivably more dangerous phenomenon: the growing opposition between the inland regions and the coastal regions, in his opinion largely due to their different natural potentials. He considered that this opposition would set the Spanish Inner Plateau (the *Meseta Central*) with its harsh climate and poor soil, subject to depopulation, against the Atlantic and Mediterranean coastal areas favoured with natural advantages and well suited for modern economic life and population growth:

> On the oceanic and Mediterranean shores of the Peninsula all advantages have been bestowed: the climate is gentler, the fertile land more abundantly covered with vegetation, the ease of communications encourages men to travel and make exchange; thus it is that farmers, merchants and sailors gather on the coast and there most of the great cities have been established. Inland, by contrast, the arid plateaus, naked rocks and rough roads, dreadful winters and lack of varied produce have made life difficult for the inhabitants and often many young people, attracted by the bountiful plains stretching at the feet of their wild mountains, emigrate (Reclus 1876, pp. 663–664).

Moreover, for Reclus, this disparity between 'the plains of the coast and the plateaus of the interior' not only explains the distribution of the population at the time ('in ring-shaped areas of density') but also the 'unfolding of Peninsular civilization into an outer area and a central core', with significant implications for general Spanish history. The most important consequence is the periodic tendency of the maritime provinces, the most wealthy and important ones, 'to isolate themselves from the other parts of Spain and live an independent life'. Ethnic diversity and territorial inequalities of wealth and population, both underpinned by the differing potentialities of the physical environment, thus represented barriers to national unity and in some way formed the geographical bases of peripheral regionalisms (the expression 'provincialisms' was then still in use.). Accommodating these, according to this author, would involve a reform of the territorial–administrative organization then in force. Consequently, in Reclus' opinion, the 1873 constitutional project for a Spanish Federal Republic structured around regional states—which was never implemented—was 'quite justified by the geographical form of the country and the history of its inhabitants' (Reclus 1876, p. 665).

As I observed earlier, the way in which Reclus interpreted Spanish geographical diversity, in addition to his political proposals in favour of a federation or the regional decentralization of the country, established a precept for the major modern geographers in Spain prior to the Civil War. Authors like Ricardo Macías-Picavea (1847–1899), Juan Dantín-Cereceda (1881–1943), Leonardo Martín-Echeverría (1894–1958) and Gonzalo de Reparaz-Rodríguez (1860–1939), among others, contributed many scientific arguments from a naturalistic perspective in favour of regionalization and even federalism (García-Álvarez et al. 2013), or, in a few cases,

Iberism, notably supported by the Gonzalo de Reparaz-Rodríguez, who contrasted the vitality of Atlantic and Mediterranean Spain with the decline of central Spain in his defence of the 'Confederation of Peninsular historic-geographical Regions' (Ferretti and García-Álvarez 2019). Some geographers were deeply involved politically in two of the main substate nationalist movements active during the Spanish Second Republic (1931–1939), such as Miquel Santaló (1887–1962) in Catalan nationalism (García-Ramón and Nogué 1994; Hernando 2000) and Ramón Otero-Pedrayo (1888–1976) in Galician nationalism (García-Álvarez 1998, 2003). For all these writers, federalism and political regionalism in Spain were rooted in the physical geography of the Peninsula as well as in the ethnic or racial variety associated with it. And this same idea was to crop up as a kind of 'scientific argument' in the discourses of many politicians who expressed support for decentralization during the 1920s and 1930s.

As a matter of fact, political regionalism and nationalism in some of those historical regions, particularly in Catalonia, the Basque Country and Galicia, was a powerful matter of discussion during this period, and in order to solve the vindications claimed for those political parties, the Spanish Second Republic established a new territorial model that allowed the political autonomy of the regions that demanded it. In 1932 the Autonomy Statute of Catalonia was promulgated and in 1936, a little time after the beginning of the Spanish Civil War, the Statute of the Basque Country was also promulgated, although the outbreak of the Civil War, as well as the victory of Franco's Army, did not allow its implementation indeed.

16.3 Geographical Images of Spanish Regions During Franco's Dictatorship (1939–1975)

The dictatorship of General Franco removed the original territorial model that had been introduced in the Second Republic. Catalonia's and the Basque Country's Statutes of Autonomy were abolished and the processes for creating other autonomous regions, that were open in several territories of the State (and almost completed in Galicia), were closed up. The Franco system practised an extreme, unitarian and excluding Spanish nationalism, based on National Catholicism, where any kind of substate regionalism or nationalism was considered and punished as 'separatism'. For some decades the use of non-Castilian languages—at least in the official life—was punished or repressed, and the State came back to a centralistic territorial model, in which the provincial divisions established in 1833 remained in force.

Under National Catholicism, recognition and even praise of Spanish regional diversity continued, but did so under a unitarist schema that placed that diversity firmly within the sphere of folklore or historicism with no concessions whatsoever to the possibility of political decentralization. Significantly, General Franco himself, when writing the prologue of lieutenant colonel José Díaz-Villegas' *Military Geography of Spain*, published shortly after the outbreak of the Civil War, stated

Fig. 16.3 A typical representation of Spanish regional diversity in a secondary school geography textbook of Francoist period: 'Spain's regional costumes and dances'. Characters are represented on the framework of historical regions, except for the Canary Islands, which are omitted in the picture. (Reproduced from Zubia 1962)

that 'the study of Geography reveals the way that criminal, traitorous separatisms are forged, behind its back and against nature' (Franco-Bahamonde 1936, p. 18).

School textbooks most closely related to National Catholicism faithfully reflected this folkloristic (or at any rate apolitical) interpretation of regionalism and regional identities that reinforced the unitarist vision of the country (Crespo-Redondo et al. 1995; García-Álvarez 2013; García-Álvarez and Marías-Martínez 2002; Rodríguez-Lestegás 2006). In these, Spanish cultural diversity was framed above all in banal terms: the school books of that period are full of quaint photographs, drawings and maps showing typical regional costumes and dances, and these books survived until the 1970s even though such manifestations had by then been mere relics for decades (Fig. 16.3). In fact, the teaching of geography in schools during Franco's regime was mainly based on the naturalistic regional schemas dating from the period before the Civil War, which broke up the unity of the historical Basque and Catalan regions, although the regional historical schema did not disappear from school teaching. Paradoxical as it may seem, the secondary school programmes of Franco's period introduced in the geography school books a chapter about the organization of the State, in which the list of Spanish provinces was taught within the frame of the

historical regions. This way, without any political or administrative existence, the historic regions old map survived once again, as it had done in the nineteenth century, like a sort of 'mental popular map', systematically memorized by the Spanish children until the end of Franco's dictatorship.

With regard to the regional divisions used by academic geography in Spain during Franco's regime, two issues should be remarked (García-Álvarez 2002). Firstly, the study of the political geography of Spain became a sort of taboo and was openly abandoned, except for some historical geography matters (Gómez-Mendoza 1997). The critics to the province and the defence of the regional decentralization, that were so common on the handbooks before the war, almost completely vanished. Environmentalistic views of political history and Spain's national problem, so frequent before the Spanish Civil War, were also abandoned and replaced by possibilistic approaches, very much influenced by the French 'classical' or Vidalian school of geography (Ortega-Cantero 2013; Riudor-Gorgas 1987). Secondly, academic geography during Franco's time did not break with the regional partition models from the period before the Civil War. The main synthetic works on Spanish geography elaborated on this period were relatively late, and, despite the fact that in many aspects they brought a remarkable renewal of previous approaches, in the question we are dealing with they hardly introduced modifications on the eclectic natural–historical model that was dominant among Spanish modern geographers prior to Civil War, that is: big regions based on physiographic or landscape criteria (now called 'geographic regions'), inside of which appear, with provincial or local corrections, the Spanish historic regions. That is the case of the Regional Geography handbook authored by Manuel de Terán-Álvarez (1904–1984) and Lluís Solé-Sabarís (1908–1985), two of the most prominent Spanish geographers of that period, and published in 1968 (Fig. 16.4 [Terán-Álvarez and Solé-Sabarís 1968]). In the introductory chapter of his book, Solé significantly affirms that 'the greater part of the traditional historic regions coincides to geographic regions, at least in their main aspects, though in some cases small changes might be required at a local scale' (Solé-Sabarís 1968, p. 19).[4]

16.4 Spanish Transition to Democracy and the Shaping of the Autonomous Communities' Map (1978–1983)

After Franco's death (November 1975), there begins in Spain a complex, though relatively fast, process of transition to democracy. In June 1977 the first free general elections since 1936 took place, and in December 1978 the prevailing Constitution was promulgated. The determination of a new territorial model of the State was the most polemic and discussed aspect of the constitutional text. Although the political

[4] On this particular book and, more broadly, on Terán's contribution to the regional geography of Spain, see Marías-Martínez (2007).

Fig. 16.4 Geographic regions of Spain. (Reproduced from Terán-Álvarez and Solé-Sabarís 1968)
(*) Major geographic units (*grandes conjuntos geográficos*) considered are: (1) Northern (made up
by three geographic regions—Galicia, Cantabric Region and Basque Country); (2) Central Plateau
(three geographic regions—Old Castile and Leon, Extremadura and New Castile), (3) Aragon and
Navarre (two geographic regions—Aragon and Navarre-Upper Ebro); (4) Mediterranean (five geo-
graphic regions—Andalusia, Murcia, Valencia, Catalonia and the Balearic Islands); and (5) Canary
Islands and African towns and provinces.

order in Spain is a Parliamentary Monarchy, the organization model of the 1978
Constitution is essentially inspired by the model of the 1931 Republican Constitution.
As in the Republican age, the question of Catalonia and the Basque country, where
there was a general claim for restoring regional autonomy abolished by Franco's
regime, was again of considerable importance to the Government and the
Constitution makers.

Without prejudice to affirm the 'unbreakable unity of the Spanish nation', the
1978 Constitution allows a wide level of political decentralization and guaran-
tees 'the right to autonomy of the nationalities and regions of which [the Spanish
nation] it is composed' (Article 2). From 1978 to 1983, the 17 current Autonomous
Communities were created (seven of which are formed only by one province); and
in 1995, Ceuta and Melilla, the two Spanish cities in the north coast of Africa,
obtained the category of Autonomous Cities. After these changes, the Spanish terri-
tory was completely regionalized (Fig. 16.5).

The Spanish Constitution of 1978 does not specify which Communities are
nationalities and which are regions; instead, it leaves this definition to be established

Fig. 16.5 Spain's autonomous communities and cities

by their respective Statutes of Autonomy. Thus, the Statutes of the Basque Country, Andalusia, Galicia, Aragon, the Valencian Community and the Canaries, in addition to the first Statute of Catalonia (1979), defined their communities as *nationalities* or *historical nationalities*. Others Autonomous Communities (Murcia, Cantabria, La Rioja and Castile-La Mancha) have defined themselves as *regions* or *historical regions* in their respective Statutes, while a few have omitted this kind of definition altogether. However, if we look beyond the symbolic dimension, the legal consequences of defining themselves as nationalities or regions are in practice nil, as all the Autonomous Communities have attained a very similar ceiling of powers, with the exception of what are generally known as 'differential facts' (*hechos diferenciales*) such as the use of a co-official language other than Spanish, the recognition of the special tax regime of Navarre and the Basque provinces, or that of the singularity of the island territories (Aja 2007, 2014a, b).

The biggest controversy concerning the definition of an Autonomous Community as a territorial collective (as region or nationality) arose from the 2006 reform of Catalonia's Statute of Autonomy, the preamble of which refers to Catalonia as a *nation* (a term that in the Constitution is reserved exclusively for the Spanish nation). This reference to Catalonia as a nation as well as some other articles of the Statute were the subjects of an appeal lodged by the People's Party (*Partido Popular*) before the Spanish Constitutional Court. In June 2010, the Court ruled that the term *nation*

might be maintained in the preamble to the Catalonian Statute of Autonomy but stated that the term lacked 'interpretative legal effectiveness' and had no other meaning but that given for *nationality* under Article 2 of the Spanish Constitution, and that the 'indissoluble unity of the Spanish nation' was not to be questioned thereby. This ruling, which also removed or shortened other articles of the Statute, generated broad political dissatisfaction in Catalonia and is considered to be a milestone in the beginning of the Catalonian territorial crisis and the drift of conservative Catalan nationalism towards pro-independence attitudes, though not necessarily the only cause of that swing (Blanco 2016; Cuadras-Morató 2016; Muñoz 2014; Tortella 2017). Otherwise, it should be noted that, since the restoration of the regional powers at the end of the 1970s, the use of the term *nation* applied to Catalonia is very widespread in the Catalan autonomous administration and legislation, including—very significantly—the school history and geography syllabuses (García-Álvarez and Marías-Martínez 2002).

The formation of the Autonomous Communities map took place at an impressive speed, and produced many conflicts that came to threaten the viability of the incipient democratic system (García-Álvarez 2002).[5] The most important and general territorial requirement established by the 1978 Constitution was that the autonomy right, except for some exceptional cases specified in the Article 144, could only be executed by 'bordering provinces that had historic, cultural and economic common characteristics; the insular territories, and the provinces with a historic territorial identity' (Article 143.1).

Twelve of the seventeen Spanish Autonomous Communities were created on the basis of the historic regions map, that, as we have seen, was hegemonic in school teaching from nineteenth century onwards and, therefore, was the regional mental map more popular among the politicians of that time. Only in five cases this historic and mental map was not followed. To begin with, this was the case of the former provinces of Logroño and Santander, which were separated from the historic region of Old Castile to finally become, respectively, La Rioja and Cantabria Autonomous Communities. By contrast, the rest of Old Castile joined the historic region of León, to create the biggest Autonomous Community in Spain (Castile and León). Finally, from the historic regional area of New Castile, two Autonomous Communities were created: Castile-La Mancha and Madrid; whereas the province of Albacete was separated from the historic region of Murcia and its deputies decided to join Castile-La Mancha. The formation of the Autonomous Communities map constituted a process built mainly by the political elites during the transition, especially by the members of the Parliament elected in 1977. For reasons examined in other contributions (particularly García-Álvarez 2002, pp. 657–675), the role of academic geographers and other academic experts was definitely secondary in this process, despite the fact that the five Autonomous Communities that did not follow the historical map have an undeniable geographical logic, as long as they reflect physical,

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[5] Among English-language references, the Spanish regionalization process and the main polemics associated with its implementation have been well summarized by Schrijver (2006).

landscape or functional spatial realities, recognized by the geographers since the last decades of the nineteenth century until the arrival of the State of the Autonomies.

Be that as it may, and apart from the role played by geography and geographical arguments in the building or legitimization of the Autonomous Community map, it is undeniable that the State of the Autonomies has profoundly influenced the recent evolution of geography in Spain and that geographers too have much to contribute to the problems and debates related to the crisis of the territorial model of the State. The last part of this chapter will be devoted to this question.

16.5 Regional Geography in the Face of the Recent and Current Politico-Territorial Crisis in Spain: Reflections for a Critical Geopolitics of the State of the Autonomies

Despite the fact that geographers were largely absent from the regional debate, or at best came into it late and played a minor role compared to other academic specialists, the impact of the State of the Autonomies on the evolution of Spanish geography was decisive as I have examined in previous works (García-Álvarez 2004, 2009). Spanish geography has seen spectacular growth both quantitatively and qualitatively under the new territorial model introduced in 1978. The emergence of the 'applied' and professional dimensions of our discipline in Spain from the 1980s onwards is inseparable from the possibilities offered by the political decentralization of the State (as well as integration into the European Union) in fields such as land use, urban planning, environmental policy and management or local development (Lois-González 2009).

Similarly, Spanish geography accepted—very comfortably—the Autonomous Community map as the main territorial framework for describing the country. The geographies of the historical–natural regions characteristic of the main university handbooks of the Franco era were superseded by geographies of the politico-administrative territories, that is, the Autonomous Communities, or by regional geographies of Spain based on the Autonomous Communities that conceptually and methodologically conserve the format of the traditional geographies. Of course, this choice for the Autonomous Communities may be understandable and reasonable in some aspects, but it also suggests a certain laziness or even involves some difficulty when it comes to tackling certain logics of regional organization where the spatial framework of these does not coincide with the map of the Autonomous Communities. This is true, for example, of the forms of regional differentiation and organization arising from certain policies, strategic alliances or economic–productive changes, which in many cases transcend the Autonomous Community or State scales and are conceived at European level: axes of development; emerging, central or declining spaces; or arcs, diagonals and other transnational areas envisaged since the 1990s in some key documents for the spatial planning and regional policy of the European

Union, such as *Europe 2000* (1991), *Europe 2000 plus* (1994) or the *European Spatial Development Perspective* (1999).[6]

But let us return to the questions posed at the beginning of this chapter: how can geography contribute to the debate on the regional (or national, or territorial) question in Spain? How can geography help to find ways out of this politico-territorial crisis? I believe that our contribution as geographers might take two main directions.

Firstly, geography both can and should help to analyse the spatial dimensions of this debate and this crisis from a critical viewpoint—a critical viewpoint aiming at favouring scientific argument over ideological or purely emotional ones and aiming at enabling us to dispel the prejudices, myths and falsehoods of certain arguments and (geo)political discourses that feed the victimhood of some and incomprehension of others, or, in short, the confrontation between nationalisms. Within this process, geography can help to detect what, from the 1970s onwards, some well-known Anglo-American scholars (such as James Anderson, Edward Soja or Derek Gregory) defined as 'spatial fetishism' (or 'fetishism of space'), an expression that refers to 'the idea that space is somehow separate, pre-given, or autonomous from social processes' (Flint 2012, p. 294) and 'possesses causal power […] *per se* in determining human action' (Castree et al. 2013, p. 483) so that 'the social relations between people come to be represented as the relation between places; here, the places become fetishized' (Smith 2004, p. 11). To put this in the context of the 'regional', 'national' or 'territorial' question, either in Spain or elsewhere, spatial fetishism implies the self-serving use of territorial concepts for camouflaging interests or conflicts that are really of another kind, for instance social or party-political.

In order to dismantle and debunk that powerful fetishism, geographical analysis (carried out to various scales) can make at least three important contributions: (1) from the politico-electoral perspective, geography could help to map and interpret the territorial reorganization proposals made and their possible consequences, and also analyse the changing maps of territorial identities, of support for nationalist and regionalist parties or of pro-independence demands; (2) from the viewpoint of economic geography, we could analyse how much truth and fairness (and how much untruth and demagoguery) there is in the complaints and demands related to the policy of large infrastructures or, more broadly, the policies theoretically designed to correct the territorial imbalances and to improve the territorial cohesion and levelling of the country; and (3) from the perspective of cultural geography, we might contribute to the analysis of collective representations of territories (and in particular how Spain and its Autonomous Communities are represented in each one) as well as to analysing the linguistic diversity of the country, a crucial question in a multicultural (and for some authors, plurinational) State like Spain.[7]

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[6] Though exceptional in the Spanish academic context, a regional handbook that to a great extent follows this kind of spatial divisions based in the above-mentioned documents is the one edited by Farinós-Dasí (2002).

[7] A significant collective effort to advance in some of these research topics from a geographical perspective has been made in Gómez-Mendoza et al. (2013). Other interesting approaches have been made in *Limes. Rivista italiana di Geopolitica* (2012). Special Issue: La Spagna Non è

Secondly, geography can and should propose measures and solutions that make it possible to rethink the territorial model of the State and relieve its internal tensions. Accustomed for scientific (and geopolitical) reasons to 'discovering' and transmitting the unity of states starting out from the diversity of their component parts, in the Spanish context geography should now provide arguments to persuade the various parts of the State to prolong a union (more than a unit) based on respect for their differences. For instance, trying to respond to the sovereignty claims in Catalonia, as well as to reduce public spending and improving the functioning of the territorial administration, Jesús Burgueño has proposed an asymmetric (but not necessarily federal) reform of the State of the Autonomies based on the distinction of three different territorial communities (Burgueño-Rivero 2012, 2013).[8] Other Spanish geographers have explicitly advocated a constitutional reform that would turn the State of the Autonomies into a *de jure* federal State based on the free will of the different peoples making up the State (whether called nations, nationalities or regions), on the principles of subsidiarity and territorial cohesion and on solid coordination and cooperation mechanisms between the different levels of territorial administration.[9] And, similarly, several authors have supported the need to build a (new) politico-regional geography of the Spains (note the plural) that would foster a federal culture among their citizens (Mata-Olmo 2013; Romero-González 2006).

I will end this contribution by addressing a question that—among the different challenges that the ongoing politico-territorial crisis has (in some cases dramatically) posed—seems to me to be vitally relevant: the teaching of Spanish geography at non-university levels. As I have already mentioned, I think we should pay special attention to the territorial images and ideas of the country and its regions transmitted within each Autonomous Community through the geography taught in their schools—not only for the educational and scientific interest this may have but also, and more importantly, because most citizens have no further contact with geography in their lives beyond that which they receive at non-university education levels. And because this also has to do with a central question in the debate that concerns

L'Uganda, *4*; *Limes. Rivista italiana di Geopolitica* (2017). Special Issue: Madrid a Barcellona, *10*; Baron and Loyer (2015); Trépier (2015). For a state of the question of the geographical research on the political geography and geopolitics of the State of the Autonomies, together with a possible agenda for further investigations, see García-Álvarez (2009) and Lois-González (2009).

[8] For a shorter version of Burgueño-Rivero (2012), see Burgueño-Rivero (2014). Burgueño's proposal consists of dividing the Autonomous Communities into three different 'regimes' on the basis of 'the deep diversity of feelings and wills of self-government' existing in Spain (Burgueño 2014, p. 3), namely 'foral communities', which would benefit, as today, from the highest degree of autonomy (giving Catalonia this status, which already exists for the Basque Country and Navarre); 'autonomous communities' *strict* sensu (according to the author's proposal: Galicia, Andalusia, Valencian Community, the Balearic Islands and the Canary Islands), which would hold the same power as today; and 'provincial communities' (the rest of the current Autonomous Communities), with less level of autonomy.

[9] This federal reform has been particularly defended, among Spanish geographers, by Romero-González (2006) and Romero-González and Boira (2017). The same model has been advocated by several of the contributors to Gómez-Mendoza et al. (2013).

us here: ultimately, inter-territorial conflicts, inter-regional controversies and disputes, like many others, are frequently rooted in a deeper problem of mutual ignorance, unawareness and incomprehension, a problem that should make us, as geographers, stop and think.

Like school history, with which our discipline has traditionally gone hand in hand since its introduction into education in Spain, school geography is a vital element in the shaping of citizens' territorial identities, and can significantly condition their territorial perceptions, feelings, ideologies and attitudes. Whether we like it or not, this 'identity-forming' and 'socializing' potential, which largely accounts for the introduction and continued existence of both subjects in the national education systems, also makes them areas particularly sensitive to political and ideological instrumentalization on the part of educational institutions.

As is well known, since the introduction of the State of the Autonomies and more particularly since the Organic Law on General Organization of the Educational System (LOGSE) was passed in 1990, education in Spain has been considerably decentralized. In the case of geography and history teaching, especially at non-university levels, this has been accompanied by a strong 'regionalization' of the syllabuses for these subjects and, accordingly, of the textbooks and other teaching materials. A report commissioned in the year 2000 by the Spanish Geographical Association (AGE) on the geography contained in Spanish secondary school textbooks, to which I had the opportunity to contribute (García-Álvarez and Marías-Martínez 2001), showed that the syllabuses and teaching materials were designed in such a way that students who only completed the compulsory education cycle would learn more about their Autonomous Community than any other territorial level. And that unless students took geography in the Baccalaureate (the *Bachillerato*)— where the discipline was not a core subject but available in only one of the four possible branches existing at that time (the Humanities and Social Sciences branch)—they might well arrive at university with only a minimal knowledge of the geography of Spain or Europe as a whole.

If, in the exercise of their powers, the Autonomous Communities choose to give precedence in education to knowledge of their own territory, this can hardly be censured, on the contrary; and indeed, no objection was made to this in the report mentioned. But what did seem more questionable, and the Report did criticise, were certain risks and excesses linked to this regionalizing trend. One of the most widespread of these risks or excesses was one that could be described as the growing regional narcissism or autism of the geography syllabuses and textbooks. Contrary to the spirit of the general State regulations, in order to achieve that better knowledge of home territory the immense majority of the regional syllabuses and compulsory secondary education manuals used in each Community totally disregarded or reduced to a minimum knowledge of any other Autonomous Communities. This narcissistic or autistic position leads to two dangers: (1) that of ignoring the country's geographical diversity, which is one of the pillars of the autonomous system itself, and (2) that of reducing knowledge of Spain as a whole to a secondary position. After all, the country is not only the reference-point for the political State but also a common geographical and historical space, indispensable and inevitable for

explaining certain elements and processes that affect each and every one of the Autonomous Communities.

Since that report was published, educational policy has gone through several turbulent years: three different education laws have been introduced (the Organic Law for the Quality in Education, LOCE, approved in 2002; the Organic Law of Education, LOE, in 2006; and the *Organic Law* on the Improvement of the Quality of *Education*, LOMCE, in 2013) together with various reforms in the contents of the primary and secondary education curricula. Unfortunately, we have no comprehensive comparative study (like the one the AGE commissioned in 2000), which might assess, among other things, to what extent those 'narcissistic' or 'autistic' trends in non-university geography teaching have been corrected, lessened or intensified.[10]

But what we must try to avoid above all is another of the hazards and excesses that the AGE report warned of: namely, the use of school geography (or, more broadly, school geography and history) for fostering peripheral nationalist conceptions that are incompatible or at least difficult to reconcile with the State general regulations governing minimum education requirements, with the need for non-dogmatic teaching or with due scientific and conceptual rigour—conceptions that in some cases almost completely ignore the existing state and autonomous framework, that select spaces that are partly defined by linguistics and partly purely ideological as the sphere for geographical and historical study and that, in the recent and current context, have contributed to fuelling the sovereignty-related territorial aspirations of certain parties. The case of the geographies (and histories) of *Euskal Herria*, which proliferated in the primary and secondary schools of the Basque Autonomous Community over the last decades, is perhaps the most serious and glaring in this regard but is not the only one.[11]

In brief, I believe that we geographers should denounce these excesses, from whichever quarter they come—whether from certain forms of Spanish nationalism or from the peripheral nationalisms. And I also think we should promote a geographical education that, by respecting the plurality of the territorial conceptions, ideologies and identities existing in Spain, fosters the cohesion, the consensus and the willingness to participate and include, and on which the constitutional system in force was constructed. It is not a question of playing down or concealing the fact that there are democratically elected citizens and parties that, in a legitimate way, do not believe in the State or the nation in its current constitutional conception; it is a question, above all, of preventing geographical education from becoming a weapon for politico-ideological division and manipulation, contrary both to constitutional values and scientific rigour.

In conclusion, not only do we need a regional political geography attentive to the processes of territorial construction, which identifies, maps, describes and analyses all these issues, but also we need a critical geopolitics that allows us to deconstruct

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[10] Among other contributions on the topic published after the AGE's report, see Pérez-Garzón (2008); García-Álvarez (2009) and Romero-González and Alcaraz-Ramos (2015).

[11] On the polemics around the idea and maps of *Euskal Herria*, see Mansvelt Beck (2006) and Mari Esparza-Zabalegui (2011).

and specify the ideological and power interests that guide territorial policies and territorial disputes; that investigates the spatial discourses and representations guiding the actions of the public and private powers and the discourses and representations that use territory as a strategy for attaining power; that dares to uncover and denounce such interests; and that, ultimately, contributes to building a more transparent, more democratic and collaborative, more cohesive, more supportive, more effective and, in short, a fairer territorial order.

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Chapter 17
Geographical Presences and Absences: The Role of Spanish Academic Geography in Geopolitical Debates

Oriol Nel·lo and Antoni Durà

Abstract A set of factors has converged to create geopolitical issues of great importance in contemporary Spain. These relate as much to the incorporation of Spain in the process of globalization as to the internal organization of the Spanish State. This chapter examines the contribution of Spanish academic geography in the first two decades of this century to research and debate in the field of political geography. The chapter has been prepared on the basis of a systematic review of the main Spanish academic journals in the field, as well as references to a very considerable bibliography. The chapter comprises five sections: the introduction presents the importance of geopolitical factors in contemporary Spain and states the hypothesis and methodology adopted to develop the chapter; the second section looks at the output of Spanish academic geography on the geopolitical position of the Iberian countries with respect to various geographical areas; the third focuses on studies concerning the borders of the Spanish state; the fourth section examines the work dealing with the institutional organization of what the 1978 Spanish Constitution calls 'nationalities and regions'; and finally, the fifth section homes in on research into the spatial aspects of local and metropolitan governments. The chapter is then rounded off by a few brief conclusions.

Keywords Political geography · Geopolitics · Globalization · Borders · National movements · Local and metropolitan government

17.1 Introduction

The process of global change currently underway is having a particularly strong effect on Mediterranean countries. There are various reasons for this. Firstly, the Mediterranean brings societies that have only recently undergone the demographic transition process into contact with European countries with a low birth rate and an

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increasingly aging population. Furthermore, the contrast between the northern and southern shores of the Mediterranean in terms of economic development and income is one of the most blatant anywhere in the world, while the urbanization process has transformed the spatial structures of Mediterranean countries as a whole, leading to the depopulation of large regions and the emergence of large metropolises. Finally, climate change is expected to hit living conditions and the availability of resources particularly hard in this area. The main dynamics of global change—whether demographic, economic, urban or climatic—are thus felt with special intensity in the Mediterranean Basin and serve to exacerbate the contradictions and tensions within both individual countries and the region as a whole.

Since the beginning of the century this combination of factors has triggered ever-increasing concern among the populations of European Mediterranean countries. Accordingly, debates about immigration, the upkeep of the welfare state, the European integration process, the distribution of public powers, land management and adaptation to climate change are now in the forefront of collective concerns. As we can see, these are all issues with a strong spatial element, and so a geographical perspective—and more particularly a geopolitical perspective—is of the utmost importance if they are to be more fully understood and discussed, and possibly resolved.

In recent years, however, academic geography has made only a very patchy contribution to the geopolitical debate in European Mediterranean countries. So, while some subjects have sparked copious and stimulating research, in other cases the voice of academic geography has been notable for its absence. The reasons for this inconsistency are complex and not always easy to unravel: they vary from one country to another and depend on the historical circumstances, which serve to render the exploration of certain subjects either appealing or off-putting. Moreover, other factors intrinsic to the discipline, such as prevailing scientific traditions, corporate strategies, the structure of the academic system, outside influences and a greater or lesser propensity for social commitment, all play a role in this respect.

This chapter focuses on Spain and seeks to analyse the involvement of its academic geography, at different levels, in the examination of the country's geopolitical problems. It will thus tackle issues related to both the Spanish State's policies and external geopolitical relationships (such as those affecting its external borders) and the territorial organization of the public powers within it. As we shall see, the contributions of academic geographers reveal, in both cases, the selective nature of their scrutiny of these subjects. While some issues and scales of analysis have repeatedly been studied—the delineation of the State's external frontiers, cross-border cooperation and metropolitan organization, to name a few—academic geography has been notably reticent on others—such as the debate on the administrative structure of the Spanish State.

The present work examines the contribution of Spanish geography in the first two decades of this century, on the basis of a systematic review of the main Spanish academic journals in the field, as well as reference to a very considerable—but not

exhaustive—bibliography.[1] Apart from this introduction, the chapter comprises four sections: the first looks at the output of Spanish academic geography on the geopolitical position of the Iberian countries with respect to various geographical areas; the second focuses on studies concerning the borders of the Spanish state; the third section examines work dealing with the institutional organization of what the 1978 Spanish Constitution calls 'nationalities and regions'; finally, the fourth section homes in on research into the spatial aspects of local and metropolitan governments. The chapter is then rounded off by a few brief conclusions.

17.2 European Integration and the Geographical 'Vocation' of the Iberian Countries: The Mediterranean, Europe, Latin America, and North Africa

One of the elements that explain the current reality of the Iberian countries is undoubtedly the geographical context in which their historical saga unfolded. This context is conditioned, above all, by their 'position', according to the concept from classical geography invoked by Joan Vilà Valentí at the start of *La Península Ibérica*, one of the handbooks used to train various generations of geographers (Vilà 1968: 17). Until recently, the debate on the position of the Iberian countries mainly revolved around the dualities of Europe/Africa and Mediterranean/Atlantic. These oppositions were explored by Manuel de Terán, another of the fathers of contemporary geography in Spain, in another widely publicized work:

> Mediterranean and Atlantic, but more Mediterranean than Atlantic: such is the Iberian Peninsula, as a result of its location between two seas. But it cannot be deduced from its location between two continents that it is both European and African […] The Iberian Peninsula and Africa Minor are Mediterranean, and on this basis, they resemble each other and relate to each other; but neither Iberia nor the Maghreb are African, properly speaking. The real Africa is the one that starts to the south of Africa Minor, in the Saharan desert. (Terán 1978, p. 2)

In recent decades, however, the pre-eminence of these dualities has been challenged by a more complicated and expansive framework: the globalization process has meant that the study of the Iberian countries' position can no longer be confined to a strictly regional—or even continental—prism but somehow or other has to take other geographical areas and ultimately the entire planet. This situation obviously

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[1] More specifically, the following geographical journals from the period 2000–2018 have been reviewed: *Anales de Geografía* (Madrid Complutense University), *Cuadernos de Geografía* (Valencia University), *Cuadernos Geográficos* (Granada University), *Documents d'Anàlisi Geogràfica* (Autonomous University of Barcelona, Girona University), *Ería* (Oviedo University), *Estudios Geográficos* (Spanish National Research Council), *Geopolitica(s). Revista de Estudios sobre Espacio y Poder* (Madrid Complutense University), *Geographicalia* (Zaragoza University), *Investigaciones Geográficas* (Alicante University), *Lurralde* (Basque Geographical Institute), *Scripta Nova* (Barcelona University), and *Treballs de la Societat Catalana de Geografia* (Institute of Catalan Studies).

does not preclude the European integration process, the Mediterranean context and the historical and cultural ties with Latin America from continuing to give rise to more close-knit relationships. Similarly, the proximity of borders brings a special intensity to the links between Spain and Portugal, the South of France (particularly in Catalonia and the Basque Country, where cultures are shared on both sides of the border), Andorra, Gibraltar, Morocco and the Western Mediterranean. It is hardly surprising, therefore, that political geography has bestowed particular attention on relationships with these areas, whether through analysis of thorny issues, such as conflicts, or through investigations into more stabilizing elements (progress on cooperation and integration).

However, as stated earlier, the globalization process has enabled other geographical areas to rise up the scale as regards the intensity of relationships. Pride of place must go to the (already historic) ascendancy of the United States and, more recently, China, as economic and geopolitical world powers. Beyond them, other geopolitical configurations are emerging, for various reasons: Russia and the former Soviet bloc, Japan and the rest of East and Southeast Asia, the Indian subcontinent, Oceania, the Middle East, Sub-Saharan Africa, Canada etc. Economic relationships (marked in the Spanish case by dependence on resources, externalization of production and paucity of R + D), political and military dependence, migratory flows and the establishment of transnational communities, as well as the interaction of multiple religions and identities, combine to form a mesh that is irreversibly becoming ever more dense. At the same time, there has been a noticeable and progressive change in the governance of these relationships, which is partly reflected in states' foreign affairs, participation in supra-state organizations and bilateral and multilateral cooperation agreements, but also in the growing prominence of sub-state bodies at every level. In any case, globalization and its various regional manifestations are posing tremendous challenges, as evident every day in the media and on social networks, and geography can and must provide valuable understanding from its own perspective.

In this respect, our review of the works on geopolitics by Spanish geographers has revealed some areas in which advances have been made (sometimes through very substantial contributions that could provide the basis for a more robust research agenda in the future) as well as other significant blind spots. The contributions have been grouped here around six axes of reflection: political geography; globalization; Europe and the Eastern neighbours; Morocco and the Mediterranean; Latin America; and other parts of the world.

17.2.1 The Role of Political Geography: From Stigma to Vindication

As in other countries, in Spanish academia the study of political geography in the fullest sense, and of geopolitics in particular, has had to confront the legacy of the use of this branch of the discipline by reactionary schools of political thought and, in the specific Spanish context, the role that it played in configuring the ideology of

Franco's dictatorship. Accordingly, the vigorous Spanish research into geopolitics in the 1940s and 1950s, spearheaded by the Catalan historian Jaume Vicens Vives, was followed by a fallow period stretching over several decades (Gómez Mendoza 2019; Losano 2011).

Nevertheless, in the final phase of the dictatorship the inescapable urge to interpret global geopolitical dynamics gave rise to renewed output. The most important and innovative work in this respect was undoubtedly *Geografía de la Sociedad Humana* (1981–1984), edited by Enric Lluch, the founder the Geography Department of the Autonomous University of Barcelona. This work expressly strived for innovation by interpreting areas of the world via an all-embracing vision of the social sciences and introducing new conceptual oppositions (centre/periphery, capitalism/planned economy). However, despite this and other contributions, the geographical community in Spain is aware that political geography is still underdeveloped in comparison with other areas of the discipline. This situation is recognized, for example, by Rubén Lois (professor at the University of Santiago de Compostela and current vice-president of the International Geographical Union) in his overview of the discipline published in a special monographic issue of the *Boletín de la Asociación de Geógrafos Españoles* (Lois 2009). It is unsurprising, therefore, that the period studied herein has given rise to repeated calls to develop Spanish political geography in order to deal with the challenges of the modern world. Two notable examples of this trend are articles by Javier Gómez Piñeiro (2002) and Josep Vicent Boira (2015) that both recognize political geography as a crucial tool for interpreting the changes thrown up by the twenty-first century.

One particularly perceptive reflection on limitations of the discipline in this field—and a call to overcome them—can be found in the introduction by Juan Ignacio Plaza, a professor at Salamanca University, to an inspiring monographic work on 'Geopolitical conflicts and tensions in the modern world', published in *Investigaciones Geográficas* (Plaza 2011). This article provides a useful overview of the achievements (sometimes outstanding, but all too few) and omissions in this field, from the early contributions in the twentieth century to the present day. Along the same lines, two manuals that appeared around the turn of the century (López Trigal and Soto 1999; Nogué and Vicente 2001) sought to provide a support for future advances in research. These overviews, particularly far-reaching in the latter two cases, have some significant elements in common:

(a) Recent international references—going beyond a historical presentation of the origins of the sub-discipline—primarily from English-speaking sources but also from French and other sources
(b) References to other disciplines with a well-established record in this field (political science, international relationships, law etc.)
(c) A selection of the main topics for future research

The increasing interest in political geography evident today is reflected by the emphasis afforded it in the two manuals covering human geography in Spain published during the period studied herein: *Geografía de España*, edited by Antonio Gil Olcina and Josefina Gómez Mendoza (2001), and *Geografía Humana de España*, edited by Juan Romero (2016). Both these works devote an entire section to the

subject. The formalization and reclamation of the academic study of political geography have even triggered the publication of a 280-entry *Diccionario de Geografía Política y Geopolítica*, compiled by Lorenzo López Trigal, a professor at the University of León (López Trigal 2013). Also worthy of note is the appearance of the volume *Espacios globales y lugares próximos* (written by a group of geographers from the Autonomous University of Barcelona and edited by Miguel Solana 2016), which has the revealing subtitle *Seventy concepts for understanding the territorial organization of capitalism*. Taken as a whole, these works reflect the conceptual renewal that has occurred in the field of political geography since the times of Vicens Vives and Enric Lluch.

One key element in this renewal has been the incorporation of—and dialogue with—research from abroad. In this respect, apart from articles published in academic journals, another crucial factor has been the emergence and consolidation of the collection *Espacios Críticos* ('Critical Spaces'), edited by professors Abel Albet and Núria Benach: this series of books strives to introduce the thought of leading international figures into the Hispanic geographical arena. It is not insignificant or coincidental that the 12 volumes that have appeared to date include works devoted to such prominent figures in the field of political geography as Doreen Massey, Richard Peet, Franco Farinelli, Neil Smith, Neil Brenner, William Bunge and Claude Raffestin.

17.2.2   Globalization: The Undercurrent

The theme underlying many of the contributions made to political geography is clearly the growing interrelationships and interdependence shared by modern societies as a result of the phenomenon of globalization. This trend is constantly reflected in geographical research by general observations on globalization (touching on both political and economic geography) and on various geopolitical processes unfolding on a worldwide scale. For example, the manuals published during this period have paid particular attention to globalization, whether they cover the global scenario (Romero and Nogué 2007) or specifically focus on the human geography of Spain (Romero and Boira 2016).

Among the works specifically devoted to the subject of globalization, particularly worthy of note are that of Ricardo Méndez, a researcher at the Spanish National Research Council, on the world geopolitical map (Méndez 2011) and the lecture he gave (Méndez 2015a, b) on receiving the International GeoCrítica Prize. Méndez has also tackled the issue of armed conflicts in the world (Méndez 2011). Globalization and its effects have similarly been studied by other authors: Gómez Piñeiro (2001) has discussed regional systems and globalization; López del Moral (2013), environmental issues; and March (2013), the relationship between global capitalism and the environment. Marcu (2007a, b) has examined Spain's place within the global processes, taking into account its new geopolitical position as a beacon for migrations from several continents that, in her opinion, create favourable effects in terms of wealth and diversity. And Martí Boada and David Saurí provided a synthesis of the process of global change (Boada and Saurí 2002).

The influence of foreign writers on this field has been particularly striking. Whereas at the tail end of the last century the predominating influences came from France, via the *Hérodote* group, and from England, via authors like Peter J. Taylor, in the opening decades of this century other authors have had a great impact. Foremost among these are the standard-bearers of what is known as 'critical geography': Neil Smith, David Harvey and Doreen Massey. Spanish geography has struck up a dialogue with this critical current of thought that has proved fruitful, albeit one-sided, as if to reflect, paradoxically, within academia the very relationship of subordination and dependence prevailing in so many other walks of economic and cultural life. In contrast, Asian, African and Latin American authors have had little effect on Spanish political geography in these years—the main exception being the Brazilian geographer Milton Santos, who was even given a homage (Bosque Maurel and García Ballesteros 2003). As for contributions from other disciplines, the interpretations of the globalization process formulated by sociologists such as Zygmunt Bauman, Saskia Sassen and Manuel Castells have had a notable impact.

17.2.3 Europe: Integration and European Politics, Neighbours to the East

From a European perspective, it has to be admitted that Spanish geography has failed, by accident or by design, to play any significant role in the debate on the need for greater European integration, during the very period in which it is being widely questioned in some countries. Spanish academic geography has generally supported advances in this integration, probably in keeping with a society that still sees membership of the European Union in a positive light, despite refusal of the austerity measures imposed at the height of the financial crisis. There has been growing criticism, however, of the 'Fortress Europe', particularly as regards the phenomenon of migration: from Bel (2002), who contemplated the dilemma of open/closed borders, to Domingo i Valls (2018), who discussed the European Union's (EU's) "*thanatopolitical*" climb down with respect to refugees. Other authors such as Schmite and Nin (2014) have covered the disillusion sparked by EU policies in the face of this crisis, an issue that probably needs to be tackled in greater depth in the coming years.

In contrast, there has been greater emphasis on explaining and discussing European politics from a territorial standpoint, which are considered to impinge on the topics covered by many geographical studies. In the period under analysis herein, there have been notable works on particular issues in this political field: the new culture of territorial governance in Europe (Plaza Gutiérrez et al. 2003); policies for rural areas (Maya and Hidalgo 2009, on adjustments to the CAP, and Esparcia Pérez and Escribano Pizarro 2012, on rural development, the CAP and the LEADER programme); the European Territorial Strategy (Camacho and Melikhova 2010; Lois González et al. 2013); and the URBAN initiative (Gutiérrez 2010). Among the foreign contributions, an article by Faludi (2005) on the touchstones and

origins of the EU's politics of territorial cohesion provided a key reference, as did comparative studies by Van den Berg, Braun and Van den Meer (2007) and Colomb, Dürh and Nadin (2010).

These overviews were complemented by other works that focused on the application and effects of European policies within Spain. These include a monographic issue of the *Boletín de la Asociación de Geógrafos Españoles* on 'Governance of territory in Spain and initiatives of coordination and territorial cooperation', overseen by two professors from Valencia University, Joan Romero and Joaquín Farinós (2005). This issue covered various European programmes, such as TERRA (Martín 2005), LEADER (García Rodriguez et al. 2005) and PRODER (Plaza 2005). Along similar lines, Nieto Gurría (2008) explored European rural policies for Extremadura; Burriel (2009), urban policies in relation to conflicts derived from city planning in Valencia; and Pillet (2015), the applicability of the European Territorial Strategy as a means of strengthening the cohesion of Castilla-La Mancha.

Contrary to what might be expected, we found few works that dealt with international relationships with neighbouring European countries (one exception being Rodríguez 2005, on the Spain–Portugal relationship in the light of World War II). Iberism, historically of great concern to Spanish geography, was, however, barely discussed in its academic studies during the period in question, and there was also a paucity of studies on the Spanish relationships with France and Andorra, and the ever-present conflict over Gibraltar (given greater prominence since 2016 due to Brexit). Nevertheless, this century has been distinguished by numerous collaborations with French and Portuguese academic geographers, most notably the Iberian Geography Colloquium, which reached its 16th edition in 2018. And, as we shall see in the next section, there has also been a steady stream of studies on contiguous areas and cross-border cooperation.

Eastern Europe and the former Soviet Union have been subjected to searching analysis, almost entirely due to works by Silvia Marcu, from the Spanish National Research Council, on integration in the Black Sea area (2004), the East European frontier (2005), the new geopolitics of post-Soviet Russia (2007a, b), border geopolitics and migrations in Russia (2011a) and tensions and conflicts in the ex-USSR region (2011b). Moreover, *Cuadernos Geográficos* published a monographic issue on Rumanian and Bulgarian migration in Spain (Viruela 2008, among others), while Machado et al. (2004) examined the border between Estonia and Russia and Torres (2014) looked at human trafficking in post-Soviet Moldavia.

17.2.4 Morocco and the Mediterranean: The Overlooked Connection

In geopolitical terms, the Mediterranean—whether taken as a whole or with a focus on Morocco and the Maghreb—also seem to have received less attention than it deserves, in the light of its importance. The fact is that Spanish academic geography has tended to produce more work about Orientalism in the Maghreb and the

historical perception of its culture than about the pressing problems currently affecting societies in both North Africa and the Mediterranean in general. This omission is all the more striking if we consider that the foremost immigrant community in Spain comes from Morocco (numbering over 750,000 people in 2017).

Be that as it may, the key work in this field is the overview by Villanova (2004a, b) of Spanish geography's vision of Morocco and the Arab–Islamic world since 1975, divided into two parts: the first covering works on geography and Spanish colonialism, the second those exploring the Arab–Islamic world. As regards colonial geography, Villanova himself has published a book (2004a, b) about the political and territorial organization of the Protectorate of Morocco. With respect to colonial cartography, a work by Muro, Nadal and Urteaga (2004) is worthy of mention, as is a subsequent study of military cartographers in Morocco (Urteaga 2006). Other notable contributions are provided by the research led by Maria Dolors Garcia Ramon on women travellers' vision of the Maghreb in the early twentieth century (Garcia Ramon 2002; Garcia Ramon et al. 2008), and the collection *España en África. La ciencia española en la Sáhara Occidental. 1884–1976* (Rodríguez Esteban 2011), where the geopolitical element is very much to the fore. The latter also incorporates an audiovisual edition comprising ten documentaries.

These valuable cultural studies are complemented by numerous references to demographic, social, economic and historical geography that often touch on geopolitical matters. Examples of this kind would include works on Morocco by Nieto and Boulifa, (2008), focusing on demographics; by Nemmaoui and García Lorca (2009) on agrarian politics; by Capote (2011) on migration to Andalusia; by Martín and Arranz (2009) on development and migration; and by Girone and Lollo (2011) on immigration via the Straits of Gibraltar and Sicily. More explicitly, Ferrer (2008, 2012) has reflected on the function of the Spanish–Moroccan border, which has also been critically examined by Vives (2011) in the light of racialization processes. Nevertheless, despite the strategic importance of the connection between Europe and the African continent via the Iberian Peninsula, Spanish geography has fallen well short of the body of work produced by the Colegio de la Frontera Norte in Tijuana, Mexico, to take just one example from the Spanish-speaking world.

17.2.5   Latin America: A Fertile Exchange

Latin America has been extremely well covered by Spanish geographical journals. This can largely be attributed to the substantial presence of Latin American academics in various universities and research centres in Spain, but another reason is the plethora of exchange programmes with Iberian–American institutions. The International Geocrítica Colloquia run by Horacio Capel, whose proceedings are published in *Scripta Nova*, and other more modest initiatives, such as the monographic issue of *Cuadernos Geografía* (2007), are proof of this. In terms of geopolitics, some topics crop up frequently:

(a) Conflicts currently underway: conflicts in South America (Cadena 2011); the US–Mexico border (Mollá 2011); substatal paradiplomacy in Brazil (Martins Senhoras et al. 2008)
(b) Geo-historical research: on state organization and territory, within the framework of a monographic work on independence and the construction of nation states in Latin America and Europe (Capel 2012); the territorial formation of the United States and Argentina (Zusman 2010); the construction and consolidation of state borders (Izard 2001)
(c) Internal geo-economic conflicts (Raymond 2004, the development of tourism; Ortiz 2015, and Márquez and Díaz-Diego, 2016, struggles over land in Brazil)

As for the specific relationship of Spain with Latin America, particularly worthy of note are the contributions of Bosque Maurel (2002, 2006)—also along geo-historical lines—and of Ramos (2007)—dealing with the current Spanish–Mexican relationship, with particular attention to SMEs.

17.2.6   Other Areas: The Need to Broaden the Scope

Finally, there is no escaping the paucity of studies on other areas of the world in the academic publications of Spanish geography. Although parts of Asia (China, the Middle East) and Sub-Saharan Africa have received some attention, there are also sizable blind spots (North America, Oceania, East and South Asia in general), although, as far as geopolitical studies are concerned, there are a few exceptions. Gil (2011) provided an overview of the main conflicts taking place on the Asian continent, while Torres (2014) focused on Kurdistan. As for China, Martín (2014) examined territorial imbalances and Lois (2017) explored Chinese urban geography by presenting a dossier devoted to this topic in *Documents d'Anàlisi Geogràfica*.

With respect to Sub-Saharan Africa, there has been some coverage of conflicts: by Mbuyi Kabunda (2011), an expert in International Relationships, on Central Africa and Sudan, and by Almeida (2011), on ethnic conflicts and development in the region as a whole. For historical reasons Equatorial Guinea has been more fully studied, particularly in relation to the historical presence of missionaries in the former Spanish colony, by Vilaró (2012a, b, 2016), while Guerra (2015) has looked at the cartography of logging in the area.

The broadening of the scope of Spanish academic geography to take in these parts of the world—which contain not only a large portion of the world's population but also the homelands of many of the immigrants currently residing in Spain—is undoubtedly one of the greatest challenges currently facing it today.

17.3   The Iberian Frontiers and Cross-Border Cooperation. The Rescaling of Politics via Reconsideration of the Meaning of State Borders

The border is obviously one of the essential, defining elements of the Westphalian state, serving to establish the limits of its sovereignty, mark out its territorial integrity and foster the homogenization of the territory within it. Over the last two centuries, one of the main functions of academic geography in European countries has been to study and legitimize states' borders by means of 'scientific' argument. However, the globalization process discussed earlier has had a considerable impact on the sovereignty of states and, therefore, on the nature of their borders. So, it is hardly surprising that the study of borders—their demarcation, definition and effects—has incorporated many new elements in recent decades, and Spanish academic geography has not been immune to this general trend.

One of the main geographical focal points in the Iberian countries this century has been the changing conditions of the areas with internal borders within the European Union. Much of the analysis has revolved around cross-border cooperation (henceforth, CBC), reflecting the spread of this phenomenon as a result of the general process of European integration (the Treaty of Union, Schengen Zone, Customs Union, Economic and Monetary Union etc.). European policies in support of territorial cooperation have played a crucial role in this respect, especially after the Madrid Convention of 1981—backed by the Council of Europe—and the start of the EU's Interreg financing programmes, which were launched in 1989 shortly after the entry of the Iberian countries. The signing of bilateral agreements between Spain and France (1995) and Portugal (2002) marked the explicit recognition of the capacity of sub-state bodies to develop cooperation agreements with territories in neighbouring states. (Andorra subsequently signed a similar agreement.) This favourable context, now enshrined in the European Territorial Cooperation objective, has resulted in a widespread deployment of cooperative activities, which in Spain have largely been driven by various sub-state levels of administration (autonomous communities, provinces, city councils). These activities have been embodied by both specific projects working under time constraints and more permanent agreements, with the so-called Euroregions as one of the most visible (although not necessarily the most effective) figureheads.

The opening-up and coming-together of Iberian border areas can be interpreted as an important change at various levels. Firstly, the softening (albeit not disappearance) of borders has tended to somewhat reduce the peripheral nature of the spaces on either side of them, as access to these neighbouring areas has been improved and new opportunities for local development have arisen as a result. Apart from these new geo-economic advantages, the increased permeability of borders has also given rise to a reassessment of these territories in terms of culture, identity and politics by

triggering recognition of common interests, as well as a restoration of the collective bonds and feelings that had been present, to some extent, in historical periods prior to the consolidation of the nation-state in the last two centuries. This redefinition of cross-border space has even wider repercussions, as it can ultimately contribute to a slow but progressive acknowledgement of a common European identity. Accordingly, we can speak of a territorial rescaling process based on the reinterpretation of these spaces, and also on their management by sub-state bodies, thus depriving central governments of an area that was traditionally their exclusive preserve as regards the state's international relationships.

López Trigal (2017) recently produced an overview of geographical research into the borders of the Iberian Peninsula, which can be considered a starting point for our own examination herein. The works that we have assembled on this subject comprise over 30 articles (largely drawn from two monographic collections published by *Documents d'Anàlisi Geogràfica* in 2010 and 2018), as well as some specific books. These works can be categorized in terms of two complementary viewpoints:

(a) Those focusing on the global analysis of the phenomenon of borders, CBC and the collation of international experiences
(b) Those examining cases and topics specifically pertaining to the Iberian Lusitanian and Pyrenean borders (leaving aside references to the border with Morocco, already discussed in the previous section)

There follows a more detailed look at some of the major contributions to these two lines of research.

17.3.1 Analysis of Borders: Definition, Evolution and Policies

The phenomenon of borders has been broadly examined in the political geography manuals mentioned in the previous section: López Trigal and Soto (1999) devote a whole chapter specifically to 'Borders and cross-border cooperation', while Nogué and Vicente (2001) examine the subject transversally, within the framework of the crisis of the State. Meanwhile, the two manuals on the human geography of Spain published during the period studied herein (Olcina and Gómez Mendoza 2001; Romero 2016) unquestioningly accepted the frontiers of the Spanish state as their starting point and did not delve into any specific analysis of the demarcation of the current borders, or the integration into the State of the set of territories contained within them.

Apart from these general accounts, the book edited by Farinós and Romero (2006) on territorial governance in Spain includes, among other interesting studies, chapters specifically devoted to CBC in the Basque Country (Cruz, Lozano and Koldobika 2006), on the Atlantic Axis (Rodríguez et al. 2006) and in Extremadura-Alentejo (Mora and García Flores 2006). Furthermore, the aforementioned monographic editions of *Documents d'Anàlisi Geogràfica*, published by the Autonomous University of Barcelona and Girona University, provide European case histories, as well as a global perspective, in an attempt to align this area of

research in Spanish political geography with current international thinking. Oliveras, Durà and Perkmann (2010), in the article introducing the first of these monographs, trace the main stages in the development of CBC in Europe, following the path marked out by the work of Markus Perkmann, the European trailblazer in this field. These authors saw CBC as having reached a phase of stabilization and greater institutionalization, following a period of spectacular growth. Eight years later, Giband and Vicente (2018), in the article that opens the second monograph (Vicente et al. 2018), investigated this latter stage in depth, highlighting the tension existing in cross-border spaces between a desire for cooperation (within 'soft spaces') and states' tendency to tighten borders in response to the pressures of international migration. From a different angle, the jurist Beltrán (2010) analysed the role of the European Groupings of Territorial Cooperation, and the political scientist Letamendia (2010) examined cross-border capital–labour relationships from a global viewpoint. Finally, these overviews were complemented in both monographs by comparative studies by various European authors of international experiments: Sohn (2010) looked at metropolitan areas, Dorrembacher (2010) at the Grande Région, Schönweitz (2010) at the Baltic Sea, Emsellem and Basse (2010) at the French–Italian–Monacan border and Bramanti and Rosso (2010) at the Adriatic–Ionic region, and Janzac (2018) at the German–Polish border. More generally, the Portuguese researcher Medeiros (2018) evaluated the recent policies of Interreg, while Feliu et al. (2018) used a comparative analysis methodology to examine four European CBC projects.

A recently published work by Durà et al. (2018) seeks to complement these European perspectives with a wide-ranging study that identifies and analyses all the Euroregions active within the EU. This work provides data on their geographical profiles, their governance structures and their activities involving cooperation, along with a catalogue of good practices.

17.3.2 The Borders of the Spanish State: Specific Studies

There has also been considerable output on CBC with respect to both the Iberian borders as a whole and individual cases. Among the overviews, Mora Aliseda et al. (2005) analysed the Interreg III programme (2000–2006) in Spain, which also covered the border with Morocco; overall, they gave a positive assessment of the programme, although the disputes between Autonomous Communities and regions in Portugal and France led them to propose the municipal and central scales as being more appropriate areas of cooperation. In contrast, Trillo and Lois (2014) noted that the Autonomous Communities have been able to deploy their own strategies through CBC, in a broader framework of international cooperation, thereby calling into question the control of central government: they use the Basque and Catalonian cases as examples of this trend. Martín and Castañer (2018) applied their project analysis methodology to the Interreg IV-A programme at both these borders and found that the autonomous communities do indeed have great leadership capacities, due to the solidity of their jurisdictions. The study of the Galician–Portuguese

relationship was the subject of considerable attention from Trillo and Pires (2016), who edited a collection of reports on the Iberian Peninsula, the fruit of an illuminating session in the 14th Coloquio Ibérico de Geografía devoted to CBC and borders. Finally, Paül et al. (2017) also provided a comprehensive overview of Spanish participation in CBC, and European territorial cooperation in general, as part of *Geografía regional de España*, edited by Farinós and Olcina (2017), thereby broaching a subject that had been poorly covered in previous manuals of this kind.

Reflections on the Spanish–Portuguese border have traditionally summoned up the picture of a predominantly rural peripheral area (with relative exceptions in coastal areas and other places, particularly in Galicia–Northern Portugal) that still experiences significant socio-economic difficulties, albeit with a growing awareness of shared space. The last few decades, however, have given rise to new critical viewpoints. The journal *Geopolitica(s). Revista de Estudios sobre Espacio y Poder* (Universidad Complutense de Madrid) has been especially persistent in this respect, with no less than six articles on the topic since 2011, by Maria Lois and Cairo (2011), Kavanagh (2011), Rovisco (2011), Trillo and Lois (2011), López Trigal (2016) and Lange (2017). In this and other publications, the contributions have particularly focused on the relationship between Galicia and Castilla y León, on the one hand, and on territories bordering on Portugal, on the other. An overview of the border can be found in Lois and Carballo (2015), who highlighted its progressively increasing permeability, as well as the contrasting territorial dynamics along its length. The relationships between Galicia and Northern Portugal have also been examined at the scale of the Autonomous Community-Region by Palmeiro and Pazos (2008), by Trillo and Lois (2011) and by the political scientist Cancela (2010); and at a local scale by the political scientist María Lois (2013), and by Trillo, Lois and Paül (2015). As regards the relationship between Castilla y León and Northern and Central Portugal, Manero (2012) provided a positive assessment of the dynamics of municipal CBC in the Duero-Douro Euroregion, while Martín and Hortelano (2017) cast light on the difficulties of some areas hard hit by depopulation and inactivity, and Trillo and Paül (2018) questioned the aims of the Biosfera Meseta Ibérica Reserve, which they consider excessively geared toward tourism. Gutiérrez et al. (2010) examined the local mobility between Extremadura and Portugal as a parameter of a border's increasing permeability. With respect to Andalusia–Southern Portugal, Mulero (2018) has pointed out the problems in cooperating on the preservation of natural spaces.

The complex nature of the Pyrenean border is also reflected in the literature on the subject. It is more permeable and urbanized at its ends (particularly on the Western Basque coast) but has very few open spaces elsewhere, with an especially difficult terrain in its central section (Huesca-Altos Pirineos and Ariège). The detailed study by Capdevila (2008) of the border's demarcation process strikingly broke new ground. Of the works on the Pyrenees as a whole, Feliu et al. (2013 and 2018) applied an analysis of Interreg projects to the area, highlighting the CTP's efficiency in distributing resources along the border, particular in those areas closest to it. Oliveras, Colomb and Durà (2016) provided a viewpoint that went beyond the Interreg projects, while Giménez-Capdevila (2005, 2012) have focused on cross-border transport policies. Homing in on specific areas, we have found various

studies of the Basque border (Alberdi 2013; Koldobika 2006; Lozano 2007; Sansinenea 2001). The output on the Central Pyrenees is more limited, although the journal *Geographicalia* has published some articles (Capdevila 2013; Gorría 2011) as part of a monographic issue on Pyrenean CBC. The remaining publications have examined the Catalonian border from various viewpoints: the political scientist Morata (2010) on the Mediterranean Pyrenees Euroregion; Castañer et al. (2011) and Castañer and Feliu (2012) on the white paper of the Catalonian Cross-Border Eurodistrict, working in collaboration with the French MOT (MOT, UdG, 2008); Pallarès et al. (2013) on the Alto Segre; Oliveras and Durà (2013) on the Barcelona–Toulouse axis; the foreign perspective of Giband and Mary (2018) on higher education in the same area (2018); and, looking at the particularly rich experience of the border county of La Cerdaña, Oliveras (2013), Berzi and Castañer (2018) and Nogué and Sala (2018), the latter focusing on a cross-border landscape plan.

It is appropriate to end with the contribution of Oliveras and Trillo (2014), two authors who have reflected deeply on CBC, while also taking a critical look at cooperation between Spanish Autonomous Communities, with an emphasis on areas that seem to replicate on a regional scale the paradigm of state borders and thus create a need for strategic approaches, along the historical lines of federal states. A similar focus could be ascribed to articles by Boira (2010), Durà & Oliveras (2010a, 2010b) and Durà (2012) on the relationship between the territories that comprise the Mediterranean Arc, understood as a shared geo-economic space. These studies suggest that management of the Iberian border territories (both inter- and intrastate) should evolve from the cooperation mechanisms currently in place to new visions more in keeping with the interdependencies triggered by the age of globalization.

17.4   Territorial Ordering of the Spanish State. The Long Silence of Spanish Academic Geography

One of the most notable consequences of the globalization process is altering the power of states. Technological advances and political agreements have enabled an unprecedented mobility of various factors: capital, goods, information and, to a lesser extent, people. This has led to an integration of economies and societies on a worldwide scale that has sparked flows that have overwhelmed the borders of states—flows that the latter find extremely difficult to not only manage but also to assess. Furthermore, globalization has been paralleled by the emergence of economic and political players—large corporations, lobbies—that act on a supra-state scale, have a great capacity to stand up to state powers and in many cases elude their regulations. In social terms, these dynamics, which have been exhaustively described and studied (Harvey 2012; Stiglitz 2012; Urry 2009), have propitiated the upsurge and consolidation of a so-called 'corporate class'. This class has accumulated a very large proportion of the world's resources and, consequently, due to its financial capacity and life style, it has been able to evade the obligations imposed by states on the rest of the population—including fiscal obligations.

At the same time as states are seeing their power curtailed by phenomena that are too big for them to handle, they are often further weakened by their own internal dynamics. As so many geographical and sociological studies have shown (Castells 1997; Harvey 1990), the dismantling of spatial barriers, far from reducing the importance of place, has in fact boosted it. The globalization process and the subsequent increase in interdependence have bestowed a particular importance on the comparative advantages that each place can offer to attract activities and investments. Moreover, in societies governed by flows and interests that often bring with them evident threats, a place becomes a refuge and a source of meaning. This largely explains the emergence of the identity-based, nationalist and localist upsurges that are affecting modern societies, including, obviously, those of the European Mediterranean countries.

The combination of these factors—globalization, on the one hand, and the increased importance of place, on the other—is one of the main wellsprings of the need for a 'rescaling' of European politics (Keating 2013). In the Spanish case, the issue is further complicated by historical developments, as the Spanish State contains within it a marked social, linguistic and cultural diversity that has, in the opinion of many historians, endowed it with a 'plurinational' status (Romero and Furió 2015). The Spanish Constitution of 1978 sought to channel this territorial diversity on an institutional basis, by recognizing the right to autonomy of the 'nationalities and regions' that make up the State (article 2, Spanish Constitution). These previsions gave rise to the configuration, in the late 1970s and early 1980s, of the map that still holds sway today, consisting of 17 Autonomous Communities. Over the 40 years since then, however, this process has been encumbered by problems and tensions of all kinds, most notably the difficulties of fitting the aspirations to self-government espoused in some parts of the State's territory (particularly Catalonia, the Basque Country and Galicia) into a relatively homogeneous framework. This has set in motion far-reaching disputes, from the long Basque conflict to the outbreak of the Catalonian crisis, that have had (and continue to have) a decisive influence on Spanish politics. The territorial component is clearly crucial to the birth and development of these conflicts, but, paradoxically, Spanish academic geography has played a very limited role in the research and public debate about the territorial ordering of the State in contemporary Spain.

17.4.1   The Debate on the Configuration and Development of the Autonomic State

The failure of Spanish academic geography to intervene in this debate has been particularly striking in recent years but it has a longer history, stretching back, at the very least, to the aforementioned configuration of the Autonomic map after the passing of the Constitution in 1978. This has been pointed out by Professor Josefina Gómez Mendoza, who was a member of the Council of State and Rector of the Autonomous University of Madrid: 'I have commented more than once on the

startling fact that throughout the pre-Autonomic, Constitutional and Autonomic process, the voice of geographers was clamorously absent. It seems even more paradoxical to me taking into account that geographers, as a scientific community, had established the objective of regional division and had made the geography of Spain and, above all, the regional geography of Spain, the centrepiece of the first study plans for the geography curriculum. However, in the pre-Autonomic times, when what would go on to be the map of Autonomic Spain was being configured and big controversies were emerging […] geographers seemed to have nothing to say, or if they did nobody knew about it' (Gómez Mendoza 2013).

This behaviour cannot be attributed to any lack of polemics and tensions in the process of configuring the Autonomic map. The very definition of the boundaries of the Autonomous Communities was fraught with numerous challenges of both a political and geographical nature (or geopolitical nature, as some would say): the possible fusion of Euskadi and Navarra; the relationship between the Catalan-speaking territories (Catalonia, Balearic Islands, the Valencian region); the position of Madrid on the Autonomic map; the fusion of Castilla and León; and, finally, the decision to establish single-province communities such as Murcia, Cantabria and La Rioja (Gómez Mendoza and García Álvarez 2001). Furthermore, the evolution of the Autonomic map occasioned some extremely important turning points that have decisively influenced all subsequent developments. The most significant of these was undoubtedly the virtual homogenization of the systems of jurisdiction (with the notable exception of the Basque Country and Navarra). The Spanish Constitution foresaw, in principle, a distinction between regions with an 'ordinary regime' and the so-called historic communities (Catalonia, the Basque Country and Galicia, which had already passed Statutes of Autonomy during the Second Spanish Republic of 1931–1939). This opened up the possibility of a territorial ordering of the State with two levels of self-government: on the one hand, the historic nationalities and, on the other, the regions. However, after the referendum on the autonomy of Andalusia in 1982, which led to an equivalence between this territory and the historic nationalities, that interpretation of the Constitution was put aside and the doors were opened for the progressive homogenization of the Autonomic system over the entire territory of the State, which has taken shape via various pacts and provisions, with the aforementioned exception of the Basque Country and Navarra (Romero 2009).

Spanish academic geography has not only been absent, as we have seen, from the debate on the configuration of the Autonomic map, but also from that on the avatars that have marked its evolution. This avoidance of the topic of the territorial ordering of the State on a regional and national scale contrasts with the numerous studies on mapping in relation to local government (a subject that will be further discussed later). This reticence also contrasts with the notable participation of Spanish academic geographers in political life over recent decades, whether through taking on elected posts or responsibilities in State, Autonomic or local administrations. Consequently, it does not seem feasible to attribute their non-participation in the study and debate on the territorial ordering of the State to a general refusal to tackle questions of a political and administrative nature.

In any case, the almost total absence of works on the configuration of the political map of the Spanish State in academic geographical journals is extremely striking. In all the issues of the 12 publications systematically consulted for the writing of this text, no more than half a dozen articles dealt with this topic in the period 2000–2018. There have been some notable exceptions, however—the most noteworthy undoubtedly being that of Joan Romero, a professor at Valencia University who, over the last two decades, has repeatedly published studies of the territorial organization of the State and the possibility of developing it along federal lines (Romero 2006, 2009, 2012, 2017; Romero and Alcaraz 2015).

17.4.2 The Crisis of the Autonomic State and the Growing Involvement of Academic Geography

Nevertheless, this apathy does seem to have been changing over the last few years. It is evident that the territorial structure drawn up by the Spanish Constitution seems to have entered into a deep crisis at the start of the present decade. This crisis is not removed, in some ways, from the tensions sparked by the globalization processes common to all Mediterranean countries; in this particular case, the tensions have manifested themselves in demands for more self-government, on the one hand, and a push toward the recentralization of the State, on the other. The most striking expression of this situation is the crisis triggered by the aborted intent to renew Catalonia's Statute of Autonomy, and the subsequent rise of a powerful independence movement from 2010 onwards.

This crisis had been building up for some time, but academic geography had barely referred to it, even in those parts of the territory in which the conflicts were most apparent, or in the publications whose subject matter would make them, in principle, best placed to tackle this issue.[2] In recent years, however, the tide seems to have turned somewhat, precisely because of the crisis that had flared up. Accordingly, a conference was held in Toledo in 2013 specifically to reflect on the topic, with the participation of some 20 geographers from universities in Andalusia, Catalonia, Castilla, Galicia, the Balearic Islands, Madrid, the Basque Country and Valencia. This meeting gave rise to the publication *Repensar el Estado. Crisis económica, conflictos territoriales e identidades políticas en* España, which dealt

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[2] Note, for example, that between 2000 and 2016, a period that coincided with a decisive phase in the evolution of the Basque conflict, *Lurralde*, the journal of the Basque Geographical Institute, did not publish any works on this issue. Meanwhile, *Treballs de la Societat Catalana de Geografia*, which over the course of these two decades has published around 30 articles on the administrative organization of Catalan territory, has not featured a single one dealing with how Catalonia fitted into the Iberian context. Nor has a journal such as *Geopolítica(s)*, launched in 2011 with the express intention of contributing to the study "of the relationship between space and power", particularly in Latin America and the Iberian countries, published any article on the territorial ordering of the Spanish State along Autonomic, federal or any other lines.

with the State's territorial crisis, with special reference to the Catalonian question but not exclusively so, through the prism of resources, infrastructures, culture, language and administration (Gómez Mendoza et al. 2013).

Initiatives of this kind had little discernible impact, however, although, more recently, the Spanish Association of Geography has embarked on a new phase by reinforcing the involvement of Spanish Geography in these debates of such importance to both politicians and the public at large. Accordingly, the Association's Geographical Thought Group organized another conference on the subject, which took place in the summer of 2018 in Cocentaina. This resulted in a new publication, *España: geografías para un Estado postmoderno*, whose editors advocated 'a reinterpretation of sovereignties, the coexistence of multiterritorialities – without spurning the specifics of each one in its own particular living space, which is already multi-tiered and multi-dimensional thanks to the means of transport and new computer technologies available– and the reconsideration of perimeters and borders, once sharply defined and impermeable but now diffuse boundaries of permeable spaces. In this new reality, sovereignty becomes flexible and shared, demanding the renunciation – by agreement, *foedus* – of the use of force and defining in its turn new codes based on cohabitation and the stable and non-unilateral conjunction of interests. Therefore, the question is not one of more or less State but of what type of State we want, and need, for Spain; or for Spains, as our country has been called with normality throughout our history' (Farinós et al. 2019).

As we can see, such initiatives are still emerging, and they have been accompanied by the appearance of the occasional article or book chapter (Nel·lo 2015; Nel·lo and Gomà 2018; Rojas 2017), but if academic geography wants to make a constructive and useful contribution to a debate that is crucial to the Spanish society of our times, it still has a great distance to catch up.

17.5 The Mapping of Local Powers: Municipalities, Counties, Provinces and Metropolitan Areas

As mentioned earlier, the growing integration of European Mediterranean countries into the globalization process has occurred in parallel with substantial territorial transformations inside each of them. Over the course of the twentieth century they were subject to extremely intense urbanization, which unfurled in two distinct phases: the first was distinguished by the concentration of the population and its activities in the main urban areas, resulting, on the one hand, in the depopulation of huge territories and, on the other, in the emergence of conurbations that concentrated a significant proportion of the population; the second phase was characterized by the growing expansion of these urban areas, the functional integration of the whole of the territory around them and the dispersion of urbanization.

One of the main effects of this two-way movement—which, in keeping with the famous metaphor of Henri Lefebvre, could be seen as both an urban implosion and

an urban explosion—has been to spark considerable tensions in the territorial organization of the public administration. This is particularly true of a country like Spain, which has an administrative base that was assembled in the nineteenth century according to a homogeneous and rigidly hierarchical Napoleonic template. As a result, more than 8000 municipalities and some 50 provinces ended up covering the State's entire territory, like two all-embracing and barely diversified meshes. However, the demographic changes associated with urbanization have led to more than 70% of Spain's 8000 municipalities having a population of less than 2000, while one thousand of them contain fewer than 100 inhabitants—in other words, their population is so small that most of them find it extremely difficult to fulfil their jurisdictions and provide the services incumbent on their town councils. At the other extreme, the urbanization process has led to the configuration of more than 40 metropolitan areas that embrace around 1300 municipalities and are home to three-quarters of the country's population. Despite their demographic weight and the complexities inherent in their administration, these metropolitan areas are almost invariably lacking in appropriate mechanisms of coordination and governance (Feria and Martínez 2016; Nel·lo 2016).

While, as we have seen, Spanish academic geography has proved reluctant to enter into the debate on the State's territorial ordering with respect to nationalities and regions, it has, in contrast, produced numerous studies of local government. This output can be categorized in terms of municipal mapping, division into *comarcas* (counties), provincial mapping and, finally, the governance of the metropolitan areas.

17.5.1 The Municipal Map: Studies and Proposals for an Urgent Reform

For an overview of the characteristics of the Spanish municipal map and the geographical studies devoted to it, the work of Burgueño and Guerrero (2014) is extremely helpful. These authors not only analyse the main features of the municipal layout and provide a useful bibliography of the relevant geographical literature but also stress the importance of studying this topic from the viewpoint of academic geography: 'We consider it necessary to stop regarding the municipal map as an established reality that is inscrutable and intangible, and instead start to ask ourselves about its *raison d'être*, so that, with this in mind, we can also be capable of making proposals to rationalize it by reforms of all kinds: from a 'simple' improvement and clarification of the frontiers to a modification of the municipal layout by merging municipalities, optimizing boundaries and resolving territorial dysfunctions, especially when they affect urban continuums. The municipal map is a field of study particularly suited to geographers, in which political, cultural, physical and historical elements converge and interact' (Burgueño and Guerrero 2014).

It is indeed the case that Spanish geography, which had already accumulated a relatively significant corpus of works on this subject in the second half of the twentieth century, has continued this output in the last two decades. Particularly outstanding in this respect are the studies published by Jacobo García Álvarez (2004, 2008), Jesús Burgueño (2004) and Román Rodríguez González (2005, 2009) on the current reality of the layout and the possibilities of reforming it. Burgueño has also examined historical episodes in the evolution of the municipal map of the Balearic Islands (Burgueño 2000), as well as its history in Catalonia (Burgueño and Lasso 2002; Capdevila 2005). The characteristics and dysfunctionalities of the municipal map have also been studied in Andalusia by Benito and de la Vega (2003), in the case of the Galician *concellos* by Rodríguez González (2004), and in Catalonia by Mendizábal (2014) and Guerrero and Burgueño (2018).

17.5.2   The Comarcas: A Tradition of Studies and Thwarted Expectations

There is a strong tradition of studies of *comarcas* (counties) in Spanish geography. Throughout the twentieth century, and even before, Spanish geographers expended great energy in demarcating these territorial areas, which are bigger than a municipality but smaller than a province. This academic tradition is particularly long in certain parts of the Spanish territory, such as Catalonia, Aragon, Galicia and the Valencian region. The laborious implementation of the provincial model (linked with the difficulties of the bourgeois revolution in Spain), the persistence of the areas with traditional rural markets and the desire to transpose the analytical methods of the French Possibilist school of geography to the scale of some the peninsular territories could help explain the liveliness of this line of research over the years.

From the viewpoint of political geography, this matter is important because the *comarca* has often been seen as a field susceptible to administrative uses. Thus, on the basis of the precedent set by Catalonia, where, back in the 1930s, the autonomous government established its own division of the territory into counties as an alternative to that of the provinces (Lluch and Nel·lo 1983, 1984; Vila 1937), the county has repeatedly been championed as a basis for administrative organization, and recognized as such in several of the statutes of regional autonomy passed during the period of the Constitution. Accordingly, the county has been used as a demarcation for the constitution of local entities, as a means to organize territory, as a statistical unit and as a space for strategic planning and the promotion of local development (Membrado-Tena 2016; Precedo 2007). The process by which counties have been demarcated and put in place as an administrative tool has met with repeated resistance and obstacles, however, and in most cases they have failed to fulfil the expectations invested in them.

In the last two decades Spanish academic geography has made a very active contribution to the debate about the counties, especially with respect to territories like Asturias, Aragón, Galicia and most particularly Catalonia, where the subject has been treated with such intensity that it has been said that the issue of territorial organization 'can be considered the most important differential trait of the school of Catalonian Geography' (Luna and Mendizábal 2004). So, since 2000 *Treballs de la Societat Catalana de Geografia*, the journal of the Catalonian geographers' association, has devoted no less than 30 articles to the subject, along with one monographic issue (published to mark the association's 75th anniversary) and three thematic dossiers. The counties of Galicia have similarly attracted great attention from geographers (Lois and Aldrey 2010; Paül and Pazos 2009; Precedo 2004). It should be borne in mind that, as in the case of Catalan nationalism, Galicia's historic nationalism saw the counties as an alternative to the provinces within the framework of self-government. There have also been noteworthy, and often critical, geographical contributions to this debate in territories such as Aragón (Calvo and Pueyo 2006; Infante 2010), Asturias (Maurin 2013) and the Valencian region (Membrado-Tena 2013).

17.5.3 The Provincial Question: Inheritance and Boundary

As explained earlier, the constitutional municipalities and the provinces were established in the nineteenth century with the advent of the modern State and the end of the diversity of jurisdictions under the *ancien régime*. The provinces, clearly inspired by the unifying, centralist French model, sought to guarantee the territorial ordering of the State and establish a homogeneous model of governance for the entire territory of Spain. However, the difficulties encountered by the bourgeois revolution in Spain meant that some notable exceptions had to be established—the three Basque provinces and Navarra (the so-called *régimen foral*)—and that the division into provinces would be viewed with animosity by those movements struggling to obtain a degree of self-government in some parts of the country (particularly Catalonia and Galicia). As we have already seen, these territories even explored other forms of territorial organization based on the counties or *comarcas*.

As we have seen, the Spanish Constitution of 1978 tried to resolve this issue by establishing the possibility that the 'nationalities and regions' that form the State could achieve a high degree of political and administrative autonomy via the creation of the 17 Autonomous Communities. In most of the territory, however, the establishment of the autonomic system did not lead to the abolition of the provincial system, either as a conduit for the peripheral administration of the State or as a conduit for local administration. Thus, despite the introduction of the Autonomous Communities, the *diputaciones provinciales* (the local governments corresponding

to the provinces) continued to exist in most cases.[3] Furthermore, the modification of the provincial boundaries and the regulation of provincial government continued to be the responsibility of the State, rather than the Autonomous Communities. Hence the paradox that, while the Spanish Autonomous Communities have acquired a level of autonomy that in other states would make them entities of a federal nature, they do not have a free hand in the organization of the local governments within their respective territories.

As we can see, this situation is imbued with a juridical and political complexity that has triggered a debate over the last 40 years that has proved irresoluble. Spanish academic geography has made some notable contributions to this debate over the last two decades. Firstly, it has studied the history of the provincial division, particularly through the work of Jesús Burgueño, who had already published some key texts on the subject in the 1990s and has continued working in the same vein in this century (Burgueño 2011). Secondly, there have been analyses of the functioning of the current provincial system, such as works by Jacobo García Álvarez (2002) and Josep Báguena and Xavier Bertrana (2013). Thirdly, the possibilities of reform have been explored from a federal perspective by Romero (2009), and via a comparison with the Italian situation by Trupiano and Nel·lo (2013). The latter publication contains a study by Burgueño—who, as we have seen, has been one of the geographers who have examined the administrative map most thoroughly—which proposes a revision of the State's territorial ordering through reform of the provincial system (Burgueño 2013).

Once again, it is in Catalonia that geographers have tackled this subject with the greatest insistence over the last 20 years. This is largely due to the fact that the 2006 Statute of the Autonomy of Catalonia attempted to mediate the substitution of the provinces existing in Catalonia by newly created demarcations: the *vegueries*. The sentence passed by the Spanish Constitutional Court in July 2010 put a stop to this project by declaring that any modification of the provincial boundaries would require the acquiescence of the State legislator. Nevertheless, the proposal provoked a considerable debate, in which Catalan academic geographers have played their part (Burgueño 2009; Nel·lo 2008, 2009; Oliveras 2009).

17.5.4 The Metropolitan Areas: Administrative Fragmentation and the Need for Governance

We have already shown how the ordering and hierarchization of the Spanish urban system during the nineteenth and twentieth centuries contrast with the rigid homogenization of the administrative template. This was particularly evident in the context

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[3] The exceptions to this rule were the single-province Autonomous Communities, i.e., those that were constituted on the basis of the territory of one province only: Asturias, Cantabria, La Rioja, Madrid and Múrcia. In these cases, the jurisdictions of the respective *diputaciones provinciales* were taken on by the autonomous governments and the *diputaciones* ceased to exist.

of the main Spanish cities, where the expansion of the urban areas has resulted in the incorporation therein of a great many municipalities. Spanish urban geography has studied this phenomenon closely, both from a general viewpoint, as in the works of Feria and Albertos (2010), Feria and Martínez (2016) and Nel·lo (2004, 2016), and with a focus on specific urban areas: Madrid (Solís 2011), Barcelona (Muñoz 2011; Nel·lo and López 2016), Asturias (Rodríguez et al. 2009), Mallorca (Mestre 2016; Rullan 2002), Valencia (Sorribes and Romero 2001), Galicia (Lois and Pino 2015; Souto 2009), to cite just a few examples.

Such studies have shown that the expansion of the urban areas has led to considerable fragmentation and administrative complexity. According to the demarcation established by Feria and Martínez, for example, the urban area of Madrid contains 172 municipalities, while that of Barcelona has 139 and that of Valencia 80 (Feria and Martínez 2016). This situation has led to enormous complexity in the management of many fields, such as public transport and environmental control. It also makes it very difficult to plan the urban areas as a whole. Moreover, as this urban expansion was accompanied by the residential segregation of social groups, each of the municipalities within a metropolitan area tends to find itself segregated in terms of income, which in its turn prejudices the implementation of social policies. Finally, administrative fragmentation also brings with it problems of democratic representativity and a lack of transparency in decision making.

The attempts to endow major Spanish cities with a system of metropolitan administration that would enable them to tackle, even partially, the problems of administrative fragmentation have encountered a host of difficulties over the last few decades. So much so that multifunctional metropolitan governments can only be found in the metropolitan areas of Barcelona (reestablished in 2010) and Vigo (created in 2012).

Spanish geography has paid attention to the problems and needs derived from this situation, as evidenced by a substantial number of studies on this subject, both in the form of overviews and of examinations of some of the issues associated with metropolitan governance, particularly spatial planning. Of particular note among the overviews are Sorribes and Romero (2006), Romero (2009) and Feria and Albertos (2010); as regards spatial planning in the metropolitan sphere, it is worth mentioning Hildebrand (2016), Feria (2011), De Miguel (2008) and Nel·lo (2012, 2014).

17.6   By Way of Conclusion

Spanish academic geography boasts a long tradition of research in political geography, but at the present time the latter's focus and projection are highly dispersed. Whereas some fields have been covered, at various scales and via various territorial units, by numerous, thought-provoking studies, others have received markedly less attention. This chapter has sought to provide an overview of this situation, by looking firstly at studies of Spain's geopolitical position within Mediterranean,

European and global frameworks. This was followed by a discussion of works that examined the State borders and experiments in cross-border cooperation. Thirdly, we analysed the (sparse) contribution of academic geography to the study and discussion of the territorial ordering of the State on the basis of nationalities and regions that integrate it, according to the terms of the Spanish Constitution. Finally, there was an exploration of the studies of the territorial organization of local governments (municipalities, counties and provinces) and problems related to metropolitan areas. This survey has led us to the following conclusions:

(a) There is a need to describe, analyse and understand the Iberian countries' place in the globalization process. This need derives not only from the challenges posed by its position and relationships in the global system but also from the growing diversity inside their societies. There has been an interesting revitalization in this respect on the part of Spanish political geography, which had been stigmatized for so long, due to its use for ideological purposes. Spanish academic geography has conducted fruitful research on Latin America and elsewhere, but it presents some notable omissions as regards the European space, the Mediterranean and, most strikingly, the southern border, which is undoubtedly one of the most strategically important points of contact in the world. There is also little work available on more distant geographical areas such as Sub-Saharan Africa, Asia, Eastern Europe and North America. If Spanish political geography is to consolidate its output, it cannot afford to renounce the ambition to contemplate the world in its totality, as well as via each of its major geographical areas.

(b) Academic geography traditionally defined itself largely through the justification of the State borders. In the current situation, where the dynamics of globalization tend to call into question the very concept of sovereignty, the study of borders often takes on another aspect. Spanish academic geography has a good body of research in this field, as regards both the demarcation of the State borders and the experiments in cross-border cooperation that have arisen after they have become more permeable. Obviously, the next stage would involve moving away from work on the border and its consequences to exploration of the possible effect of the two conflicting trends seen today: on the one hand, the push toward stronger state sovereignty and a return to hard borders (including physical barriers) and, on the other, the drive toward a gradual erosion of the traditional state borders, thanks to the combined effects of communication technologies and globalization.

(c) Paradoxically, the dynamics of globalization have led to an increase in the importance of place, and this has triggered a rebirth of national, identity-based tensions. In Spain this situation has been intensified by its considerable territorial, cultural and linguistic diversity, which has historically encountered great obstacles as regards acceptance via institutional means. The resulting conflicts have an evident spatial component, but Spanish academic geography has been reluctant to use its vantage point to tackle the issue of the territorial ordering of the State, even in periods of heated debate and upheaval when it could have

made a useful and explicative contribution. This was the case with the drawing-up of the Autonomic map, this was the case during the long Basque conflict, and it continues to be the case in the institutional crisis opened up by the demands for independence emanating from Catalonia in recent years. This reticence contrasts with the unremitting output from other academic fields, particularly political science, administrative law and sociological studies. It is only recently that Spanish academic geography seems to have become more involved in this debate. If this engagement is further consolidated, a rigorous contribution from geography could be of great help in understanding and handling the conflicts that have been set in motion.

(d) Finally, the transformations described earlier have been accompanied, not by chance, by profound changes in demographics and land use, as well as in the relationship of society with the environment. One of the main vectors of these changes has been the urbanization process, which has led to a concentration of population on a territory, followed by an expansion of urban areas, an increased territorial interdependence and a dispersion of urbanization. The local administrative map, inspired by the nineteenth-century drive towards rigid homogenization, has thus become ever more obsolete, due to both the depopulation of large expanses and the emergence of enormous urban areas that straddle administrative boundaries. Spanish geography has observed these phenomena closely, with respect to both the municipal and the provincial maps. It has also contributed to the formulation of alternative organizational solutions, based on either counties or metropolitan areas.

This survey shows the potential of political geography to confront some of our societies' crucial challenges: the dynamics of the globalization process, the crisis of the Westphalian State, the emergence of new social agents, the increase in territorial conflicts and the struggle over resources. The usefulness and relevance of Spanish geography in the coming years will largely depend on its capacity to further understanding of these issues and improve how they are handled.

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