

Article

Recent Transformations in the Morphology of Spanish Medium-Sized Cities: From the Compact City to the Urban Area

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Abstract: Over the last few decades, within the framework of remarkable urban expansion accompanying a real-estate boom in Spain, it has been medium-sized cities that have registered the most drastic changes in morphology. Currently, about 50% of urbanised land was developed after 1980. Historically compact and dense urban structures have been transformed, with new urbanised spaces expanding into the outskirts. High land consumption has created sprawling, fragmented and scattered urban areas. These are new, more complex and multifunctional urban structures, and there has been a change in the scale of urbanisation, in the forms and in the resulting urban landscape. However, the growth model which has caused these transformations is defined by hardly sustainable land-use patterns. The number of medium-sized cities has increased by around 50%, while the number of houses built has grown by 109% and developed land by 87% between 1981 and 2021. This paper analyses these recent dynamics through the statistical treatment of growth patterns and their cartographic analysis using GIS technology. The significant modification of urban forms at this scale in the Spanish urban system is confirmed. The paper also reflects on the lack of sustainability in the prevailing model with respect to the 2030 city strategy.

Keywords: medium-sized cities; urban areas; urbanisation



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1. Introduction

In the study of the city, the urban landscape can be seen as a starting point or as an end. The constructed image of urban spaces over time can suggest questions about how they have been formed and which parts are to be identified in the structure of the whole, but, as a result of thorough study, the urban scene can be seen as a complex product of the processes and dynamics that have led to its configuration. However, in no case can the geographical study of the city remain a mere aesthetic interpretation of the visual elements, of the physical scene of the urban environment that has been built [1]. The analysis of the territory as a form of urbanised expression and as the result of a complex socio-economic process of transformations over time requires a study of the process of urbanisation, without which it is difficult to explain the landscape. This interpretation stems from the complex interrelationship between the processes of urbanisation, urban forms, the structure of the city and the urban scene. The understanding of the dialectic which occurs between all these elements has been one of the key focuses of urban studies over the last century [2].

If the urban landscape can be understood synthetically as the visually perceived or aesthetically valued face of a city—as that set of visible features that give it its own appearance and identity—urban morphology is defined as the study of the configuration and form of the city. The morphological study involves understanding not only the resulting forms and the distribution of the different parts of the structure, but also the explanation of how the process of urbanisation has developed over time, through which phases, and by which agents and factors (physical, environmental, social, economic, political, cultural, etc.) [1]. The city thus has diverse urban forms that are the reflection of the variety of spaces

and times that are shown as a whole—the expression and result of the different stages of the urbanising process, which are reflected in the final landscape composition [3]. In this way, the study of urban morphology logically implies a diachronic perspective, as it is necessary to understand how the different urban spaces have been constructed at each stage. Only in this way can the landscape (as a whole) be explained as a result of the interrelationship between its constituent parts (the different urban forms) [1,4,5].

Consequently, urban forms do not exist without context; they are neither given nor do they exist without condition; rather, they are generated through a complex process. This process implies certain dynamics involving different actors, which can generate different outcomes depending on how the city is changing at any given moment. It is important to note that there is a necessary and fragile balance between continuity and change, as some parts of the city remain while others disappear. Urban morphology is also concerned with studying and understanding this integration, with the aim of being able to explain how the city is structured in different parts that are spatially and temporally inter-related. Geography is used as a science to understand the territory, but an instrumental perspective from history—as a discipline that explains the process of construction and the evolution of the city—is also necessary [6–8]. This is the historical–geographical approach applied to the study of urban morphology—one of the main trends of thought that has developed within the discipline of urban studies [9]. From this perspective, urban morphology studies have been essentially concerned with three basic aspects: the analysis of the urban map and its evolution; the identification and explanation of buildings and built elements; and the consequent differentiation of land uses according to different human activities. These three aspects form the fundamental axes of the morphological analysis of the city [1,10–12].

Nonetheless, our study has been conducted according to a plural and interdisciplinary approach, since the historical–geographical perspective is not the only one possible. Understanding urbanisation processes in their broadest sense, the analysis of built spaces and the differentiation of land uses and activities entails a large socio-economic component that has required the attention of multiple disciplines [3,5]. As well as historians and geographers, studies on urban morphology have also been developed by architects, economists and sociologists. The evolutionary analysis of urban spaces and the understanding of their structures as a result of urbanisation processes is of obvious interest not only for understanding urban history, but also as a tool for planning and for critical thinking about the evolution and management of urban spaces; it is also a highly valuable instrument for mapping the social differentiations observed in cities [8,13].

All the perspectives mentioned in the previous paragraphs and summarised here in a necessarily brief way have converged in a broad thematic corpus that has evolved over the course of the 20th century. Different branches of thought have been generated within urban morphology studies and a very broad epistemological and methodological discussion has arisen. Recently, several publications have systematised these precepts and have carried out interesting and detailed analyses of the disciplinary evolution of geographical studies on urban form. All of them coincide in pointing out the existence of different thematic and disciplinary approaches beyond the aforementioned historical–geographical approach. They also indicate the significance and approaches of the most important schools, among which the British, French, German, Italian and North American ones stand out [14–20]. In Spain, the main contributions to and transformations in the method and approach of urban studies in recent decades have also been identified. In all these cases, the studies reflect the progressive conceptual evolution of research. The interest in the interrelationship between form and landscape is evident, as is the progressive introduction of quantitative methods, the growing and efficient use of geographic information systems (GISs), and the increasingly evident social function of studies on the structure of the city [21–23].

In most countries, the last two decades have also seen a resurgence of interest in urban geography with the adoption of an evolutionary approach and with special emphasis on morphological studies. From the initial focus on the natural scenery of the city during the first third of the 20th century, there was an evolution towards more quantitative analyses that sought to identify and delimit the structures of urban growth. For much of the second half of the 20th century, urban morphology focused on the study of urban expansion and population concentration until the 1970s and 1980s. In a third phase, at the end of the 20th century, studies on urban spaces turned their attention to the question of historic centres as an essential part of the origin and identity of cities. More recently, at the beginning of the 21st century, research on morphology has generally been directed towards the interpretation of suburban areas and complex fragmented spaces on the outskirts of extended cities (large residential, industrial, commercial and infrastructural complexes) [8,9,16,19,23].

These issues were already being widely studied in scientific studies and have been tackled repeatedly and with lots of specific examples in successive scientific meetings. As clear examples of this, we can highlight the multiple contributions collected in the sessions of the International Seminar on Urban Form (ISUF) since 1994, and, in the case of Ibero-America, the congresses that have also been held since 2016 through the ISUF-Hispanic (ISUF-H) regional network. Another expression of the great interest that has arisen with the revitalisation of studies on urban form is the production of a very large number of research studies on this issue in scientific journals that specialise in the subject. In this regard, *Urban Morphology* and the *Revista de Morfología Urbana* [24–27] are worth mentioning.

Undoubtedly, throughout the 20th century, all schools of thought on the morphological analysis of cities have paid special attention to the process of urbanisation, i.e., to the evolutionary transformation of the city [3–5]. As a general rule, the ultimate objective has been to understand the result in terms of the expression of the different forms that constitute the urban structure. Geography, in particular, has focused intensely on understanding these dynamics and processes, as well as identifying the roles played by the different agents involved in the urbanisation process. However, this classical framework is today largely insufficient when it comes to understanding the production of urban spaces in all their complexity. Over the last forty years, changes in patterns of city growth have been so significant that they have had a marked effect on urban morphology. The emergence of new forms of sprawl and the break with the classical model of growth by continuous extension have brought about a necessary change in the approach to urban studies [8,9,13].

Urban geography is moving towards the analysis of the social forms observable on the city map—the result of the morphological transformations brought about by recent growth. Increasing inequalities and socio-spatial differentiation between different parts of the city are becoming more and more evident. The traditional study of the city layout as an urban form has been largely replaced by the analysis of new urban social maps. This is the result and reflection of changes in the socio-economic structure of urban areas [28,29]. Consequently, the traditional study of morphology has changed. It is no longer enough to undertake an analysis of the urbanisation process and explain the involvement of relevant actors. The new essential objective of morphological study focuses on working out the results that the dynamics of discontinuous growth are generating across the city map. There is an evident process of fragmentation of urban spaces that is dissecting cities into increasingly segmented and, in many cases, disintegrated spaces. Clearly, this process is directly related to the profound change in the recent pattern of urbanisation. Cities have transformed from their traditional compact structures of more or less continuous growth into fractured, scattered urbanised spaces with evident signs of fragmentation, not only physically but also socio-economically [30,31].

Logically, these processes call into question the very viability of the urban growth model, and research that reconsiders the geographical study of the city by analysing sustainability, health and social equity has arisen. It is necessary to rethink whether the urban growth of recent decades and the new dispersed patterns of contemporary cities are sustainable and provide equitable, healthy habitats with equal access to living conditions and

enjoyment of services for its inhabitants. The increase in the inequality and vulnerability of certain demographic groups, recent health and energy crises, international conflicts, and growth in financing, not only of housing but also of many other goods essential for urban life, call into question the validity of the urban model of recent decades [32]. The fragmented growth of the contemporary city is revealing an increase in urban inequalities, which clearly demonstrates the difficulties in articulating and integrating the different parts of the city. Thus, conflicts of urban form in the contemporary city have reached such high levels that some authors have even suggested the need to readjust the urban model of the post-capitalist city in the context of the crisis of global capitalism [33,34].

Of course, these issues are clearly reflected in morphology, as urban spaces exhibit strong modifications in their typologies and structures. It is particularly illustrative and interesting to study these processes in the Spanish case, given the scope of recent growth and the strong transformations experienced. In Spain, the urbanisation phenomenon of recent decades has maintained a dynamic of such intensity that it has completely remodelled the traditional city. It is assumed that during the last decades, between 1981 and 2021, growth processes have been so intense that there has been a considerable modification of the city's structures. The compact and relatively dense model has been extended to the outskirts, and new urban areas have been created. This hypothesis is verified in the study through the use of consistent statistical data and information that make its confirmation possible through an analysis of the results presented. The work initially tackles the accuracy of the object of study, considering the singularity of the urbanising phenomenon in Spain and contextualising the recent intense transformation of its urban areas. This section explains the research approach and details the methodology used. This is followed by the presentation of the results, which is subdivided into two sections: firstly, the analysis of the dynamics of demographic, urbanisation and real-estate growth in Spanish medium-sized cities between 1981 and 2021; and secondly, the study of their main spatial and morphological consequences, analysing the changes in scale and the modifications in urban structure and form. Finally, the discussion and conclusions are presented with a reflection on the conflicts associated with such an intense growth model in light of the 2030 city horizon.

2. Object of Study, Methodology and Sources

2.1. Object of Study

Since the beginning of the democratic period, the structure of Spanish urban areas has changed significantly. From 1980 onwards, the urbanisation process has been intense, and most cities have expanded drastically in comparison to their previous forms. During this process, economic, financial and political dynamics have generated a scenario of transformations in which cities have been deeply affected by the impact of these changes. The interrelation between economic growth, real-estate dynamics and the construction sector has formed the basis of what is known as Spanish real-estate capitalism, which is focused on capturing rents from the dynamics of land transformation generated by the urbanisation process itself. The construction of housing as a lucrative business has defined a model sustained by the production of capital and applied to the construction of the city [34–36].

In this way, urban spaces have become directly linked to capital, and a financial “spider’s web” has been constructed that has sustained spatial growth to some extent. The capital gains generated by the real-estate business have been so intense that they have exceeded the expectations for other activities and have become the benchmark for rent production. This process has supported financial growth, economic dynamics and the banking system. City growth has been linearly identified with real-estate production. Urban patterns have clearly changed, and an urbanism that is closely linked to the cycles of economic growth that explain the housing market has been developed [37–40].

The application of this new economic–financial paradigm to the urbanisation process has had a significant impact on cities. The impact of capitalist ideology through the generation of income from real-estate production has been translated into urban planning policies that reflect the development expectations of the markets. This has facilitated the expansion and transformation of urban centres. The ideals of the first democratic period, from 1978 onwards, which focused on urban restructuring and the restraint of sprawl, have been replaced by the unlimited growth of the city at the end of the 20th century. This transformation is framed within the liberal model of “everything can be developed” [41,42].

These transformations and the remarkable impact that the Spanish urbanisation phenomenon has had on cities have been extensively studied. Between 1990 and 2012, the urbanised surface area of the country increased by more than 500,000 hectares, which is equivalent to the surface area of the Netherlands. Of this newly transformed area, nearly 200,000 hectares were urbanised in the period 2000–2012, making Spain the European country for which this process had the highest intensity. The amount of land urbanised in Spain in this period was greater than that developed in the same period in Germany, Great Britain and Italy combined [43]. The most intense transformations had their maximum expression between 1997 and 2007. This period of time has been called the “prodigious decade of Spanish urban planning”, when cities experienced their most intense rates of urbanisation, driven by the unstoppable expansion of the housing construction sector [44–48].

In Figure 1, we have depicted the evolution of the newly urbanised land footprint according to the spatial patterns provided by the Corine Land Cover project. The urbanised footprint is mapped at three points in time that specifically illustrate the transformation dynamics and its phases: 1987, 2005 and 2018. As can be seen, the most relevant part of this growth took place in the cities and their urban outskirts, following the major axes of communication and territorial structuring. Between 1981 and 2018, the rate of growth of urbanised land increased by 72%, from barely 450,000 ha to nearly 800,000 ha, in Spanish cities as a whole. This means that practically 50% of today’s urban spaces have been urbanised in the last forty years [49].

The succession of all these changes has been divided into three major phases defined by economic logic but which are related to municipal urban planning policies: first, between 1979 and 1991, a period of reform and social urban planning in search of a balanced city model; second, between 1992 and 2008, the phase of expansive urban planning and massive real-estate growth identified with neoliberal policies and characterised by systematic urban growth based on the classification of new land for development; and third, from 2008 onwards, the bursting of the so-called “real estate bubble”, defined by the financial, economic and social crisis, which has led to a debate on the necessary redefinition of urban models and the restraint of the logic of mass production of new land [50–52].

Of course, the maps are extremely revealing of the strong spatial impact and the intense territorial transformation that this “urbanising tsunami” has generated. Logically, such a degree of urbanisation has brought about some decisive changes in the typologies of land use, leading to a modification of existing urban structures. The traditional structure of urban forms has clearly changed and a new spatial composition has been created in most cities [53].

New outskirts have been rapidly and intensively urbanised within a very short period of time. As a general pattern, this accelerated and massive urbanisation has been characterised by new residential sectors. However, it should be borne in mind that large industrial and logistical spaces have also been generated, as well as shopping and leisure centres, public facilities and transport infrastructures. The incorporation of these new elements has completely changed the compact structure that characterised the previous stages, as the new urban structures have become a complex web of forms with different compositions—a remarkable transformation that has raised debate about the idea of the diffuse city. Such profound changes in the recent urbanisation process have aroused interest within urban studies and have led to the reconsideration of urban planning models and spatial growth patterns [54–56].

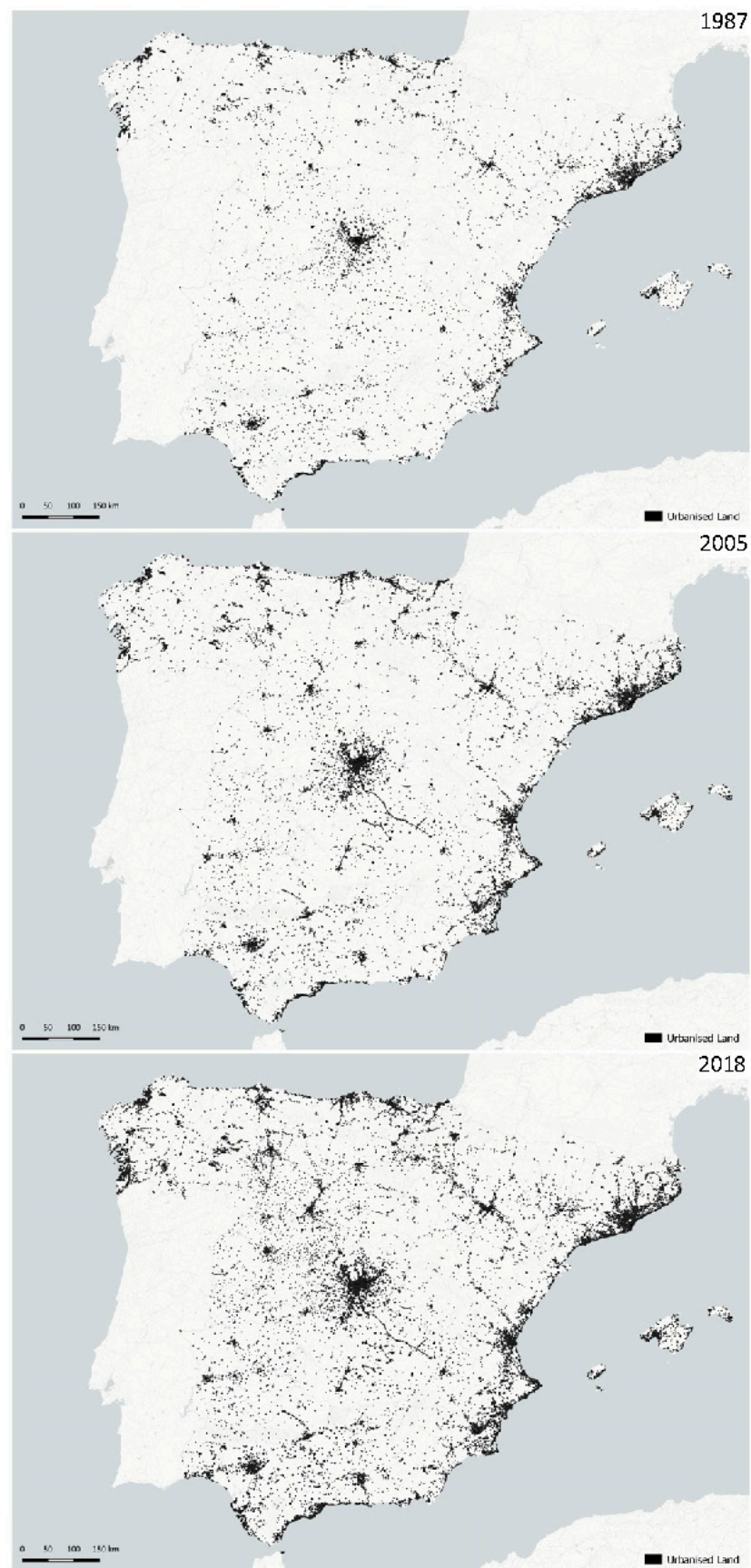


Figure 1. Evolution of urbanised land in Spain (1987–2018). Elaboration based on artificialised land cover according to layers of the Corine Land Cover project prepared by the author.

In this context, medium-sized cities show the highest growth rates in the Spanish urban system, and it is in this type of urban area that the greatest structural transformations can be observed. From the initial compact and relatively dense city, a radical change in scale, form and structure is taking place. This paper analyses this process and studies how recent expansion has taken place in this intermediate scale of the urban system. In Spain, academic studies and technical reports on territory have defined the threshold of medium-sized cities as lying between 50,000 and 250,000 inhabitants. However, it is also necessary to consider the recent expansion in the peripheries of urban areas. In previous works, we have already defined Spanish medium-sized cities as those in which the “central” city or cities are located in this demographic range (between 50 and 250,000 inhabitants) and whose overall urban populations do not exceed 400,000 inhabitants [49].

Assuming, despite its delimitation problems, the official classification of urban areas provided by the Ministry of Transport, Mobility and Urban Agenda (MITMA), there are 60 urban areas in Spain that constitute medium-sized cities. In 2021, this set of 60 areas is made up of 245 municipalities (out of a national total of 8131 municipalities), covering an area of 24,172 km² and housing a total of 8,215,827 inhabitants. This represents 17.3% of the population of the country as a whole and 21% of the urban population. This is the universe under analysis in this paper.

2.2. Methodology and Sources

For this research, a methodology that combined statistical analysis with the processing of spatial information in a geographic information system (GIS) was used. The reference time period was 1981–2021. Firstly, different series of statistical information were obtained, essentially from the publicly available data of official administrations. This information was tabulated and processed to obtain different results and was grouped to identify the most important segments of the Spanish urban system. The information was divided into three groups: large urban areas (more than 400,000 inhabitants), intermediate urban areas (50,000 to 40,000 inhabitants) and cities (fewer than 50,000 inhabitants). Within each group, a distinction was also made between the main or central city of the urban area and the rest of the municipalities that make it up. The data were thus gathered for the entire urban system as a whole and for each of its categories. This differentiated treatment made it possible to compare progress at different scales. Once the statistical details were obtained, evolution ratios, growth indexes and transformation percentages were calculated to measure the existing changes in each of the variables considered.

Three main variables were analysed to measure urban change: demographic dynamics (changes in the volume of the population), the real-estate market (evolution of the housing stock) and the growth of built-up areas (monitoring the footprint of artificialised land). The demographic information was obtained from the Population and Housing Censuses of the National Institute of Statistics in their 1981, 1991, 2001, 2011 and 2021 editions. The number of dwellings built in each of the reference years was obtained from this same source, except for the last census (2021). In this case, the data on existing housing stock had not been published, so the value was obtained by means of a valuation at the municipal level based on the provincial reference data provided by MITMA for 2021. The Corine Land Cover project was used to analyse the evolution of urbanised land. This source presents its results in geographic information layers, so these files were analysed in the QGIS geographic information system. In this GIS, the different land categories were filtered for the reference years available for Spain: 1987, 2000, 2005, 2011 and 2018. In this way, ordered and tabulated information was obtained in temporal series of artificialised ground layers, and it was possible to compare this information with the series for the other two variables under study. In parallel, GIS mapping of the results for the different variables was developed, and reference tables and graphs were drawn up as a basis for statistical study.

The work with the GIS made it possible to obtain a cartographic series for all Spanish cities, in which the dynamics of transformation were shown from a general perspective. The mapping of the statistical information also made it possible to obtain a thematic cartography for different case studies. From the in-depth analysis of some of the cases, the general behaviour was modelled. The use of GIS technology made it possible to construct a model referring to the evolution of urban forms in Spanish medium-sized cities in the period analysed. From the transformation tendencies of the different medium-sized cities, a scheme that represents a theoretical model of the common growth patterns of these cities in their contemporary urban evolution was obtained. Methodologically, the combination of statistical analysis with the use of GIS technology made it possible to make progress in terms of the achievement of results so as to present a detailed cartography showing the modifications in urban morphology.

3. Results and Discussion

3.1. *The Recent Transformation of Spanish Medium-Sized Cities (1981–2021): From Moderate Growth to the Vertiginous Expansion of the Real-Estate Boom*

In the early 1980s, Spanish medium-sized cities began a phase of moderate growth. At that time, municipal planning focused basically on the reform and recovery of decadent urban centres and the improvement of inherited structures and forms. The emphasis was on improving the standards of urban facilities and services, and the transformation of some unstructured outskirts was beginning to be considered [55]. During that decade, however, the situation changed as Spain was affected by broader European dynamics and powers were transferred to regional governments. Within this framework, a repositioning of medium-sized cities in the urban system would take place, with remarkable growth and expectations of future developments [57].

From the early 1990s onwards, medium-sized cities began to expand more noticeably. New growth went beyond the boundaries of the city and reached neighbouring municipalities. This resulted in the generation of urban areas around these cities. The intensification of growth dynamics led to processes of extension of the urban area, which in turn led to profound morphological, functional and social transformations [58,59].

After the beginning of this process of urban sprawl, significant growth and expansion of these cities took place during the 2000s. A massive set of urban land developments with large-scale housing production was generated within the framework of the so-called real-estate boom. This process generated a larger and less dense urban area around the original medium-sized cities, and supramunicipal cities were created as the sum of fragments without continuity in their urban framework [60,61].

The figures that prove these changes can be seen in Tables 1 and 2. These tables show the evolution between 1981 and 2021 in the three variables considered in our analysis of the recent transformation of Spain's medium-sized cities (population, housing and developed land). According to these data, the urban areas of medium-sized cities increased from barely 100,000 ha of developed land in 1981 to more than 191,000 ha in 2018. This represents an 86% increase in urban space over the last four decades. In the same period, the number of dwellings in these cities increased from 2.1 million to 4.5 million. This is a 109% increase in housing stock, which is even more intense than the increase in developed land. However, over the same period, the population has only increased from 5.4 to 8.2 million people. The demographic dynamic thus shows a growth rate of 50%. These general data are highly indicative of a first conclusion: the urbanisation process, which includes intense urban and real-estate expansion, shows an enormous mismatch with demographic growth. The highly speculative patterns of the low-density and sprawl model are also shown at this urban scale, as other studies have already suggested in the case of large agglomerations [62]. Beyond this first generalised result, however, it is worth analysing the data in more detail, as we can observe a number of peculiarities that characterise the special features of Spanish medium-sized cities in the framework of the Spanish urban system.

Table 1. General indicators for the percentage annual variation in the dynamics of population, housing and urbanised land growth in Spanish cities in the period 1981–2021.

	No. Mun.	Area (km ²)	Growth Dynamics		
			(% p.a.)		
			Population (1981–2021)	Housing (1981–2021)	Developed Land (1987–2018)
URBAN AGGLOMERATIONS	488	23,045	0.79	1.90	2.00
Large central cities	24	7602	0.17	1.34	1.61
INTERMEDIATE URBAN AREAS	245	24,172	1.37	2.95	2.80
Medium central cities	66	17,376	0.99	2.57	2.38
SMALL TOWNS	363	58,877	1.08	2.61	2.67
TOTAL URBAN SYSTEM	1096	106,094	0.95	2.24	2.35

Prepared by the author, based on: National Statistics Institute (INE): Population and Housing Censuses of 1981, 1991, 2001, 2011 and 2021; Ministry of Transport, Mobility and Urban Agenda (MITMA): Housing Statistics 2021 (estimated from provincial data according to growth ratios, 2011–2021); and Corine Land Cover (CLC): coverage years 1987, 2000, 2005, 2011 and 2018.

Table 2. Disaggregated indicators and relative indices for the process of population, housing and urbanised land growth in Spanish cities 1981–2021.

	No. Inhabitants					Growth Index (1981 = 100)			
	1981	1991	2001	2011	2021	1991	2001	2011	2021
POPULATION									
URBAN AGGLOMERATIONS	18,623,327	19,392,196	20,557,405	23,422,300	24,059,915	104.13	110.39	125.77	129.19
Large central cities	11,920,928	11,756,976	11,665,688	12,574,340	12,692,149	98.62	97.86	105.48	106.47
INTERMEDIATE URBAN AREAS	5,458,167	6,044,352	6,659,741	8,064,531	8,215,827	110.74	122.01	147.75	150.52
Medium central cities	4,677,881	5,123,825	5,476,535	6,352,601	6,389,893	109.53	117.07	135.80	136.60
SMALL TOWNS	5,021,386	5,316,424	5,780,244	6,915,223	7,032,896	105.88	115.11	137.72	140.06
TOTAL URBAN SYSTEM	29,102,880	30,752,972	32,997,390	38,402,054	39,308,638	105.67	113.38	131.95	135.07
	Housing					Growth Index (1981 = 100)			
HOUSING									
URBAN AGGLOMERATIONS	6,746,453	7,666,612	9,371,935	11,126,586	11,489,505	113.64	138.92	164.92	170.30
Large central cities	4,255,467	4,635,422	5,407,395	6,164,430	6,367,349	108.93	127.07	144.86	149.63
INTERMEDIATE URBAN AREAS	2,164,305	2,696,895	3,539,914	4,417,376	4,528,353	124.61	163.56	204.10	209.23
Medium central cities	1,795,890	2,184,087	2,816,349	3,419,269	3,506,563	121.62	156.82	190.39	195.25
SMALL TOWNS	2,085,076	2,604,477	3,257,059	4,000,233	4,101,410	124.91	156.21	191.85	196.70
TOTAL URBAN SYSTEM	10,995,834	12,967,984	16,168,908	19,544,195	20,119,268	117.94	147.05	177.74	182.97
	Urbanised Area (ha)					Growth Index (1987 = 100)			
URBANISED LAND									
URBAN AGGLOMERATIONS	239,041	298,050	342,004	386,984	387,327	124.69	143.07	161.89	162.03
Large central cities	94,590	113,737	128,684	143,281	141,797	120.24	136.04	151.48	149.91
INTERMEDIATE URBAN AREAS	102,688	132,168	159,963	190,859	191,726	128.71	155.78	185.86	186.71
Medium central cities	72,226	90,010	107,727	126,371	125,484	124.62	149.15	174.97	173.74
SMALL TOWNS	114,559	140,107	171,424	207,282	209,480	122.30	149.64	180.94	182.86
TOTAL URBAN SYSTEM	456,288	570,325	673,391	824,831	788,533	124.99	147.58	180.77	172.81

Prepared by the author, based on: National Statistics Institute (INE): Population and Housing Censuses of 1981, 1991, 2001, 2011 and 2021; Ministry of Transport, Mobility and Urban Agenda (MITMA): Housing Statistics 2021 (estimated from provincial data according to growth ratios, 2011–2021); and Corine Land Cover (CLC): coverage years 1987, 2000, 2005, 2011 and 2018.

Firstly, monitoring each of the phases of the process reveals a growing intensity of expansion over the last four decades, only tempered by a recent slowdown. From the initial moderate phase, growth accelerated until the rapid expansion of the real-estate boom. During this period, medium-sized cities displayed the highest growth ratios in the Spanish urban system, with annual increases in housing and land of over 3.1 and 4.2%, respectively, during the central phase of growth, as opposed to 2.2 and 2.9 in large cities (Figure 2). There was then a clear slowdown in the process over recent years, from 2009 to the present, as a result of the bursting of the Spanish real-estate bubble and the dismantling of the financial system of the construction sector. From more than 600,000 dwellings per year reached in Spain in 2006–2008 to barely 40,000 recorded in 2016, the rate of real-estate growth has evidently been greatly attenuated (the rate of housing production has fallen to 10 times less than that achieved in the expansionary phase) [40,52]. Along the same lines, during the last decade, the expansion of developed land has come to a radical halt, going from sustained year-on-year variations between 1990 and 2011 of over 2% to practically zero growth (barely 0.25% per year in recent years).

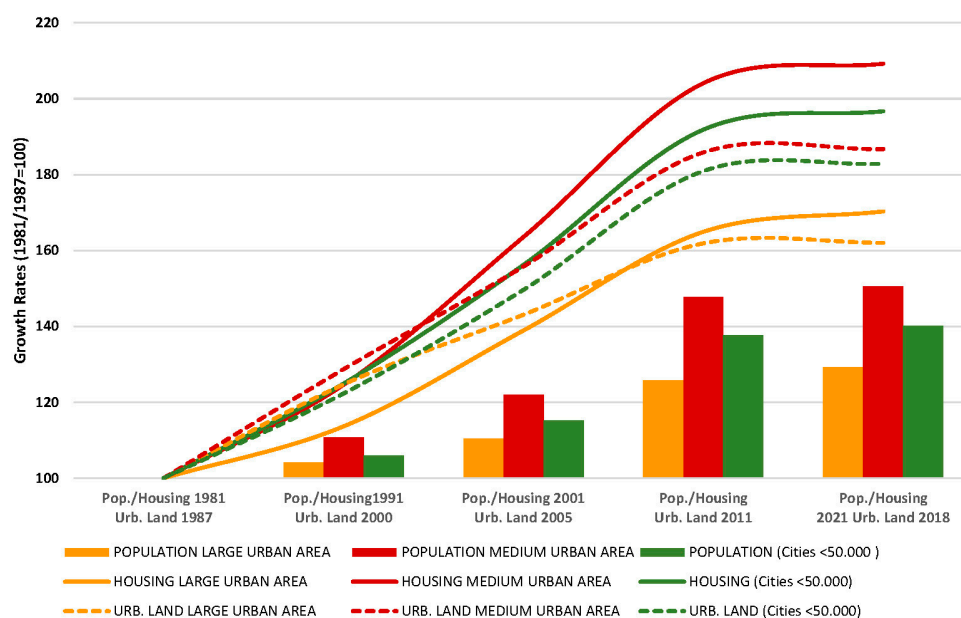


Figure 2. Evolutionary dynamics of the growth rates of Spanish urban areas (housing, land and population) 1981–2021. Large urban areas, medium urban areas and cities with between 10 and 50,000 inhabitants. Author’s elaboration based on Population and Housing Censuses 1981, 1991, 2001, 2011 and 2021; Housing Statistics 2021 of the MTMA (estimation based on provincial data according to growth rates, 2011–2021); and Corine Land Cover (CLC) (1987, 1990, 2000, 2006 and 2018).

The second issue to highlight is that the urban areas that make up the medium-sized cities show a relative growth significantly higher than the average for Spanish cities in the period analysed. The medium-sized cities increased their population by slightly more than 50% compared to the 1980s. Since then, they have doubled the volume of their housing stock and recorded a growth rate that has also doubled the surface area of their urbanised space. This growth places medium-sized cities at the top of the Spanish urban system, well above the relative growth of the large urban agglomerations. Specifically, the demographic increase in medium-sized cities is 15 percentage points above the average for the rest of the categories in the urban system, exceeding the growth rate of large cities by 21 percentage points. The growth trends are even more pronounced for housing (26 percentage points above average and 39 percentage points above large cities) and developed land (14 percentage points above average and 24 percentage points above large cities). The differences are equally striking in the annual percentage changes in these growth rates. The urban areas of medium-sized cities show a positive variation of 1.37% per annum in

demographic dynamics, 2.95% per annum in housing growth and 2.80% per annum in the expansion of developed land. The same values are significantly lower in the case of large urban areas—0.79% per year in population, 1.90% per year in housing and 2% per year in urbanised land—and in the national urban system as a whole—0.95% per year in population, 2.24% per year in housing and 2.35% per year in urbanised land. In conclusion, it is clear that, in relative terms, intermediate urban areas are the type of city that have grown the most over the last few decades in Spain (Figure 3).

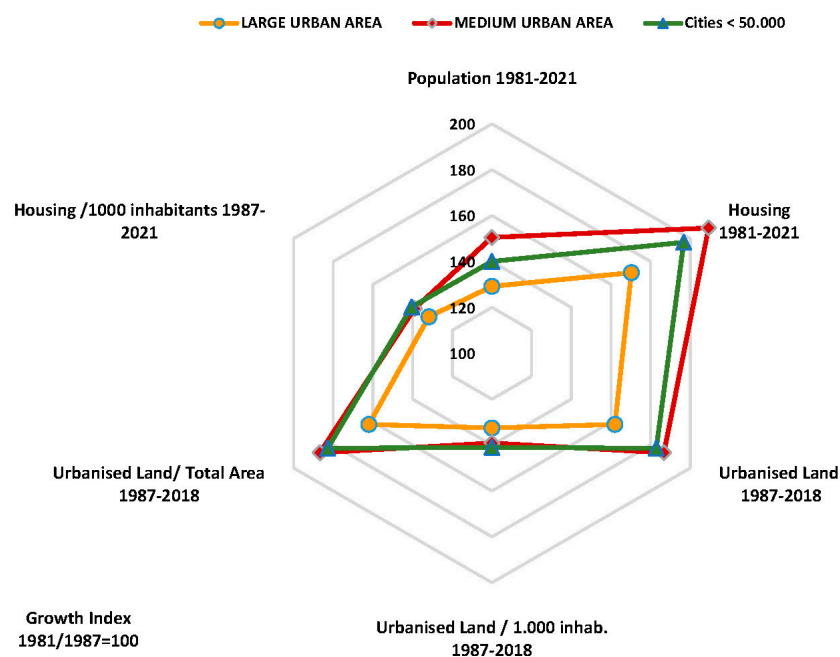


Figure 3. Growth rates for Spanish urban areas (housing, land and population) in the period 1981–2021. Large urban areas, medium urban areas and cities with between 10 and 50,000 inhabitants. Author’s elaboration based on Population and Housing Censuses 1981, 1991, 2001, 2011 and 2021; Housing Statistics 2021 of the MTMA (estimate based on provincial data according to growth rates, 2011–2021); and Corine Land Cover (CLC) (1987, 1990, 2000, 2006 and 2018).

Thirdly, the analysis reveals that, in the process of peripheral expansion, it is the smaller municipalities in the urban areas, located around the central city, which experience relatively higher growth. As a general rule, dispersion generates higher rates of real-estate and urban development growth in these municipalities in the outlying areas, as opposed to the lower dynamism of the central cities. This circumstance is evident in both large and medium-sized cities. In the case of the former, the surrounding municipalities are growing 24% more in population, 21% more in housing and 13% more in developed land than the central cities. In the case of intermediate urban areas, the outskirts exceed the central cities by 14% in population, 14% in housing and 13% in developed land. With respect to medium-sized cities, population growth in the outskirts is more moderate than in large cities, yet real estate and urbanisation growth is equally intense [63,64].

All the information provided by these data shows a clear phase of growth and expansion between 1981 and 2021 in Spanish medium-sized cities. The accelerated transformation undergone can also be seen if we measure the relative indexes of the number of dwellings built and the land developed per 1000 inhabitants. Specifically, in medium-sized cities, there are 551 dwellings and 23 ha of developed land per 1000 people. However, it should be borne in mind that all these indicators of the strong transformation experienced in medium-sized cities are not homogeneous across all cases and present significant variations depending on the geographical position of each urban area, its articulation with more dynamic territorial systems and the characteristics of the policies applied at a local level.

The attached maps (Figures 4–6) show the territorial distribution of growth dynamics. The cartographic representation of the evolution of the population, housing and land variables not only confirms the relative differences in growth between intermediate urban areas and large cities and the mismatches between demographic growth and urban expansion, but also shows the territorial distribution and its peculiarities in terms of the aforementioned aspects of location and context. One can see the evident differentiation of the medium-sized cities on the Mediterranean coast, which is associated with tourism dynamics. In these cases, there is a certain demographic intensity at par with that of urban growth. As a general rule, the cartography shows the consolidation of dynamic systems of urban areas with respect to medium-sized cities: firstly, there is the group of cities which, from Algeciras to Girona, make up the Mediterranean axis—with a special intensity of the urbanising process in Alicante, Valencia and Murcia; secondly, there are the medium-sized cities linked to the metropolitan dynamics of Madrid, with the urban area of Guadalajara providing the greatest example of expansion; thirdly, there are the cities linked to the expansion of the Bilbao conurbation and the growth of nearby cities (Vitoria, Logroño and Pamplona) with expansion dynamics that are strikingly higher than their demographic transformation; fourthly, there is the group of cities on the Galician coast (Vigo, Santiago and A Coruña), around the Atlantic axis connecting urban areas from the South of Portugal to the North of Galicia; and, finally, there are the majority of medium-sized cities in the inland of the peninsula which show a generalised demographic lethargy, in which, however, the expansionary process of the real-estate boom is equally intense. The maps undoubtedly paint a faithful portrait of the footprint of expansive urbanism in Spanish urban areas between 1981 and 2021.

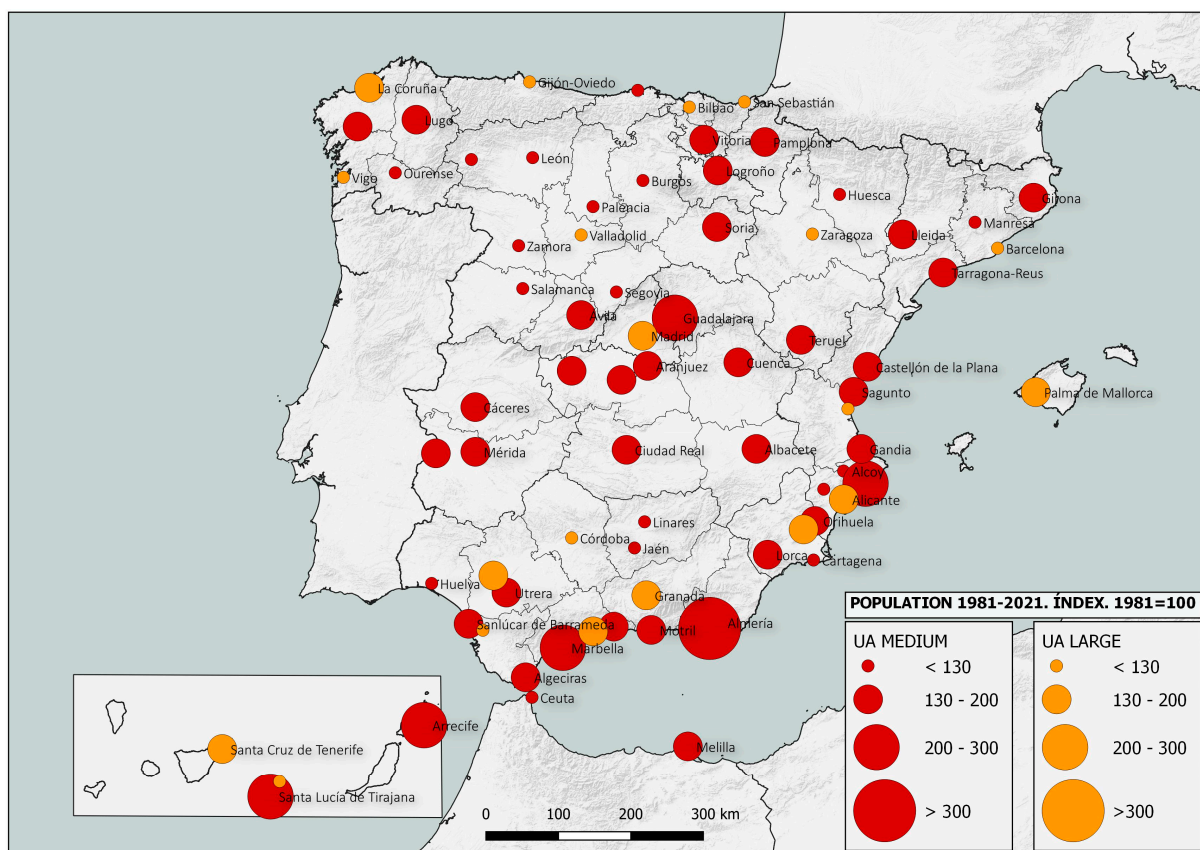


Figure 4. Growth rates of Spanish urban areas in the period 1981–2021 (POPULATION). Author’s elaboration based on Population and Housing Censuses 1981, 1991, 2001, 2011 and 2021; Housing Statistics 2021 of the MTMA (estimate based on provincial data according to growth rates, 2011–2021); and Corine Land Cover (CLC) (1987, 1990, 2000, 2006 and 2018).

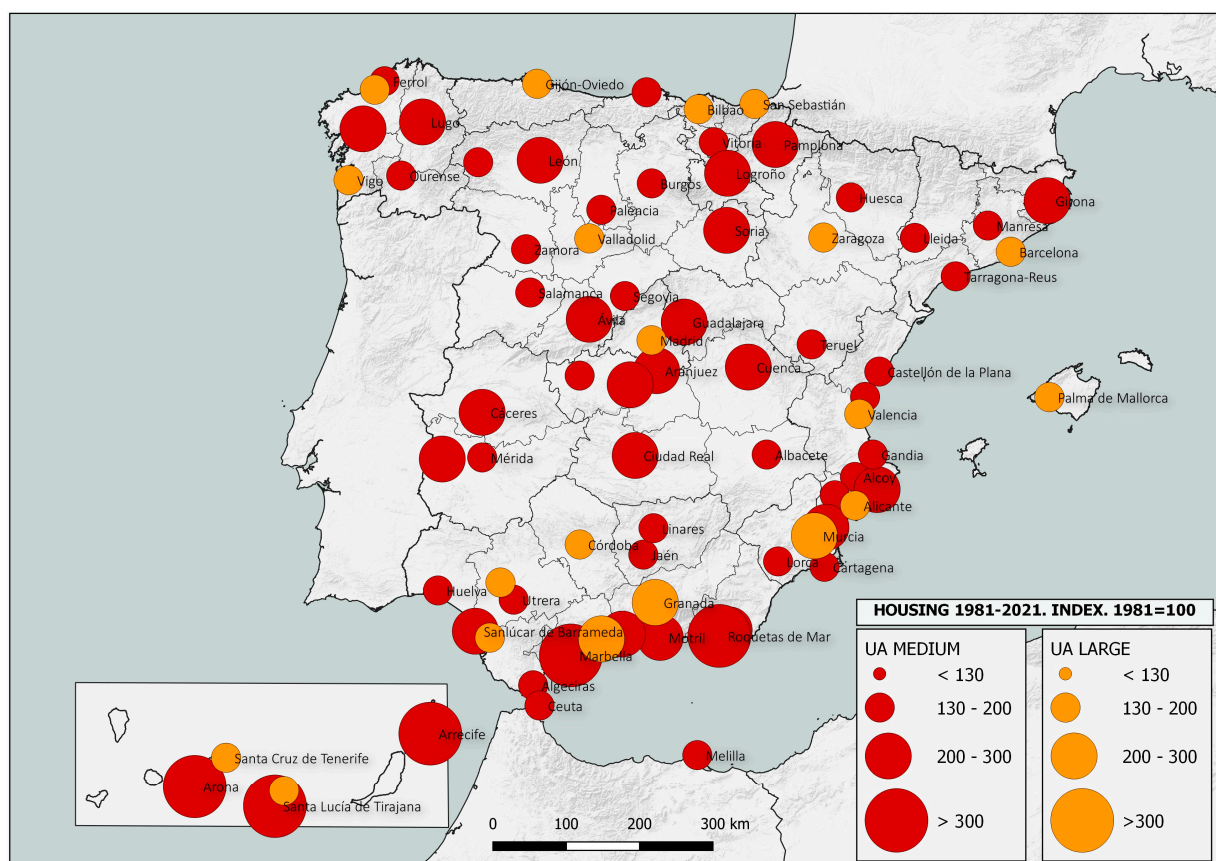


Figure 5. Growth rates of Spanish urban areas in the period 1981–2021 (HOUSING). Author’s elaboration based on Population and Housing Censuses 1981, 1991, 2001, 2011 and 2021; Housing Statistics 2021 of the MTMA (estimate based on provincial data according to growth ratios 2011–2021); and Corine Land Cover (CLC) (1987, 1990, 2000, 2006 and 2018).

Owing to these recent changes, we can say that the urbanisation process over recent decades in Spanish medium-sized cities has been intensive, in terms of the volume of land and housing production, but also extensive, in terms of its territorial scope. At the same time, it can be defined as a selective and fragmented process, given the strong specialisation of land uses, and it has a clearly exclusive nature, due to the self-enclosed morphologies adopted by many of the real-estate developments. This has led to a significant spatial and social fragmentation that has changed the meaning and function of the territorial dynamics of these cities [65,66]. As a result of these processes, some of the urban areas of medium-sized cities have shown a greater functional specialisation, since the extension of the urbanisation phenomenon has gone beyond the merely residential. A very relevant part of the expansion has to do with the development of land intended for industrial, logistic or other economic activities during the real-estate boom [67,68].

Undoubtedly, what is most decisive is that there have been very significant changes in the urban landscape in terms of its form and structure. The urban morphology of medium-sized cities has changed profoundly due to these recent processes. The result is a strong variation in the existing urban spaces and an evident fragmentation in the forms of production of new urban spaces. The new parts of the city outside the original municipal boundaries have produced a dispersed and less dense structure [49,69,70].

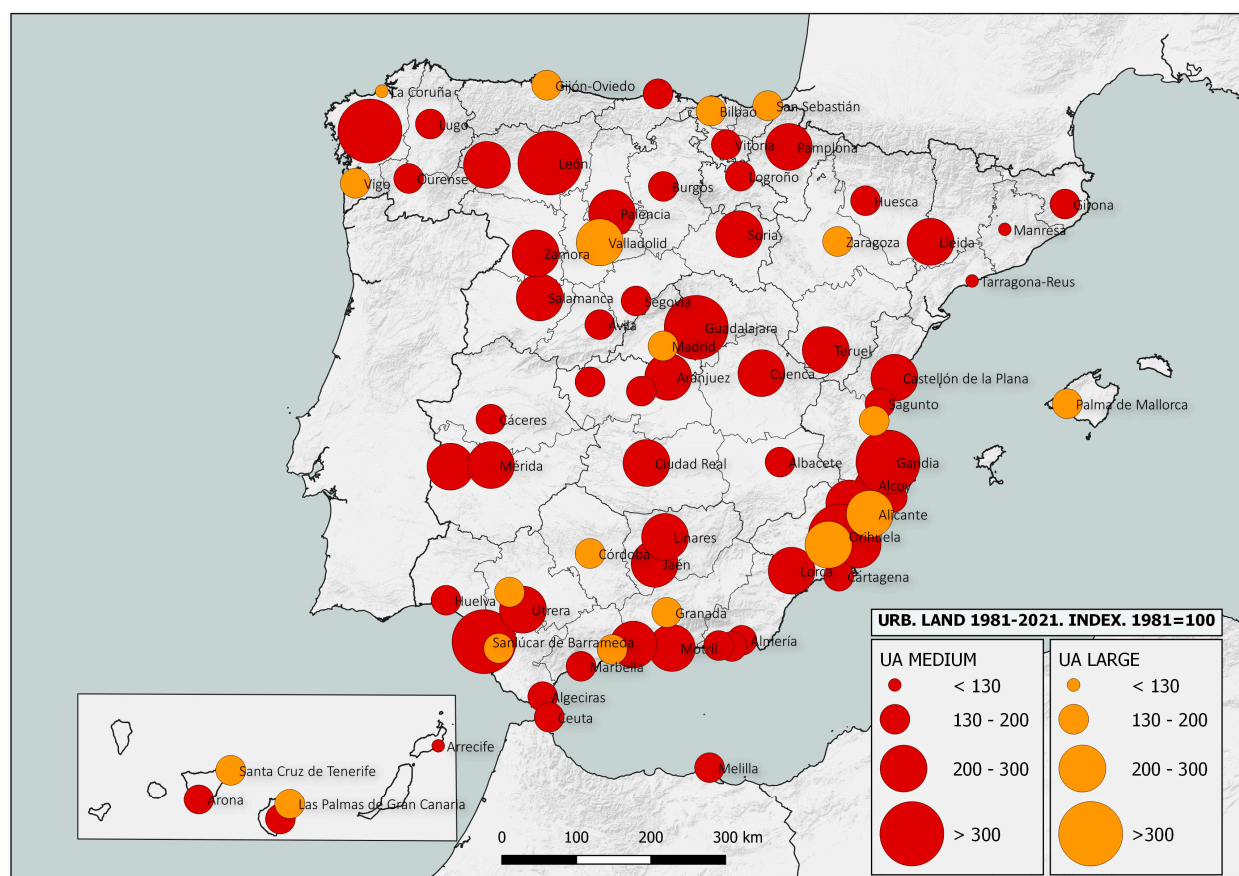


Figure 6. Growth rates of Spanish urban areas in the period 1981–2021 (URBANISED LAND). Author’s elaboration based on Population and Housing Censuses 1981, 1991, 2001, 2011 and 2021; Housing Statistics 2021 of the MTMA (estimate based on provincial data according to growth rates, 2011–2021); and Corine Land Cover (CLC) (1987, 1990, 2000, 2006 and 2018).

3.2. From the Compact City to the Urban Area: Changes in Scale, form and Structure in Spain’s Medium-Sized Cities

Indeed, because of the succession of transformations analysed, the extension of Spanish medium-sized cities has multiplied over the last four decades, generating a change in scale which has resulted in the transition from the compact city to the more extended, dispersed urban area with signs of fragmentation on its outskirts. This has led to a reconsideration of the traditional argument that medium-sized cities are essentially configured by a central historical nucleus that had been expanding with the growth of industrial development during the 1960s and 1970s. The data have already shown that nearly half of the urbanised land in Spanish medium-sized cities was developed after 1980. It is therefore necessary to reconsider the formal model of these cities, as their structures has been deeply transformed and is much more complex. It is interesting to map this reality and reflect on the real changes in the form and structure of these cities. As Figure 7 shows, it is the recent growth process of the medium-sized cities that completely modifies the compactness trend of all previous stages. Throughout most of the 20th century, medium-sized cities grew according to a pattern of more or less continuous expansion and with a generalised tendency towards compactness. This pattern has only changed during the last four decades, leading to the spatial and socio-economic division of the new urbanised spaces at the intermediate urban scale. In the aforementioned figure, the constructed scheme represents the expansion of a typical medium-sized city in four major stages: the pre-20th century historic city; the reform of the traditional complex and the first urban extensions that occurred up until the 1950s; the rapid expansion and urban growth that took place between 1960 and 1992; and

the final stage of dispersed and discontinuous peripheral growth that intensely modified the morphology of these cities [71,72].

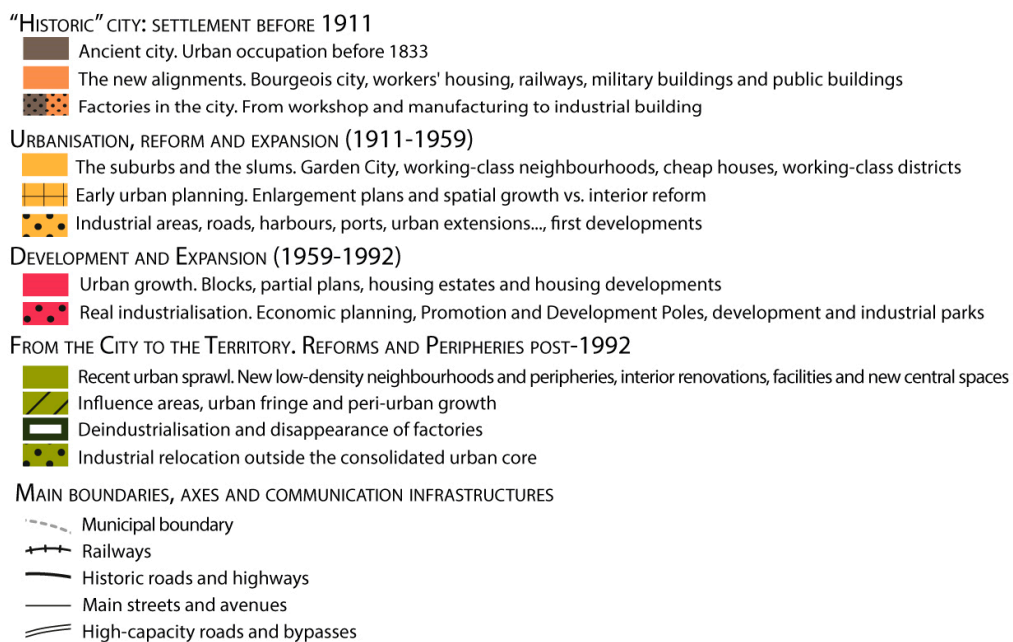
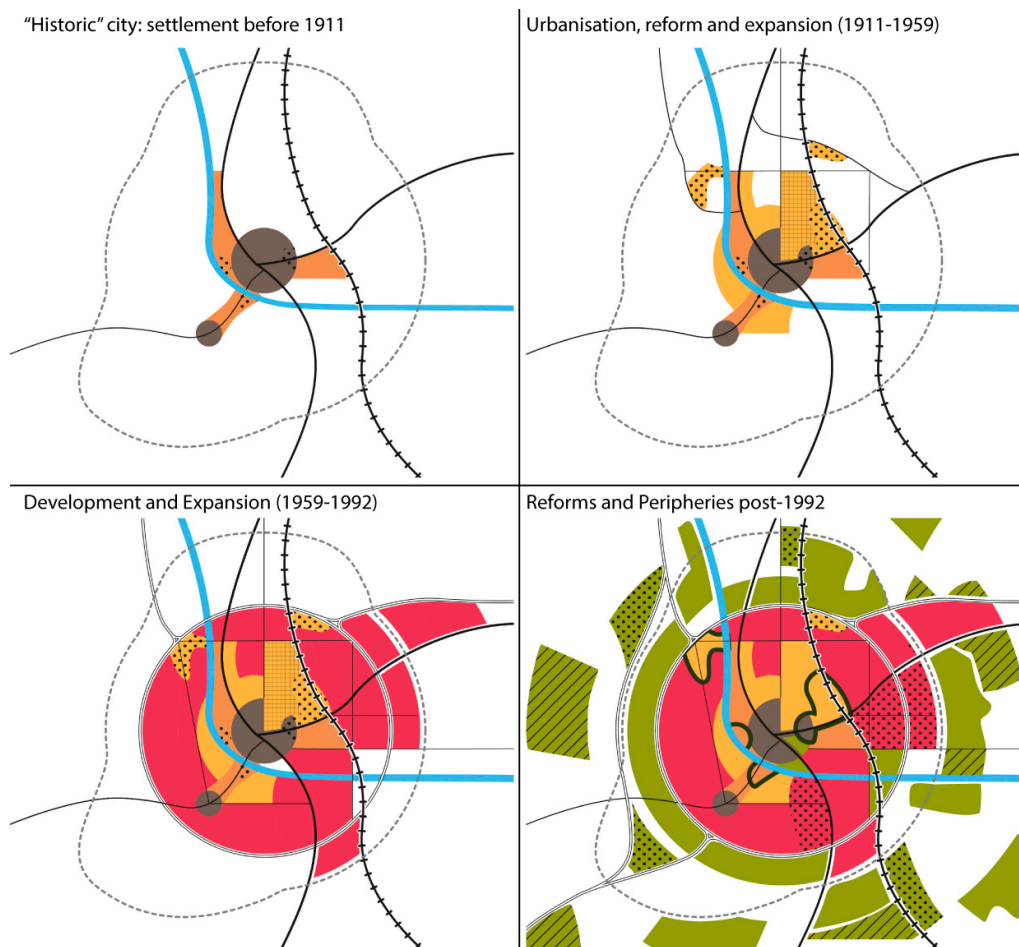


Figure 7. Modelling of the growth process and configuration of the urban structure in medium-sized Spanish cities (graphic design and infographics: Daniel Herrero Luque).

Traditionally, medium-sized cities were centred on their old historic hearts. This structure was consolidated after the administrative re-organisation of the State in 1833 with the designation of the provincial capital cities. Initially, urban topography had been structured around the limits of the old city walls, which were restructured during the 19th century. Based on the traditional city, the first urban alignments started to take place according to very simple planning based on bylaws and without any clear city planning. On the one hand, the projects of limited extensions of the bourgeois city and, on the other hand, some early workers' housing projects explain the slight and moderate growth of medium-sized cities. Only a few military and public buildings, early factories and railway infrastructures were added to the analysis of these cities' structures at this early stage. Thus, the limits of the historic city, the traditional access routes, the railways, factories and early urbanisation projects initially defined the city.

However, from the end of the 19th century onwards, medium-sized cities began to transform themselves, and slowly various formal changes began to define their structure. The problem of workers' housing became increasingly evident, and it became necessary to plan new neighbourhoods of affordable housing. From 1911 onwards, several Cheap Housing Acts were passed. In 1924, the Municipal Statute was approved, marking the beginning of urban planning legislation on this scale. As a result of such regulation, medium-sized cities began to draw up Plans for Expansion, Extension and Reform, by means of which the traditional space of the historic city was gradually extended. This second phase of the urbanisation process can be divided into two sub-stages. On the one hand, according to low-density models (garden cities and cheap housing), the surroundings of these cities with neighbourhoods began to be characterised by varying compositions but had a similar function: they were the first outlying areas. On the other hand, there was the orderly expansion of the suburban developments. These appeared in the medium-sized cities significantly later than in Madrid and Barcelona, where they had already been planned by the last third of the 19th century. Although in some medium-sized cities there are examples of early partial suburban developments (Elche, León, Vitoria, etc.), in general, this expansion did not emerge until well into the 1930s and 1940s (Burgos, Badajoz, Oviedo, Logroño, etc.). This second stage had a significant effect on the urban map, remarkably broadening the initial extension of most cities, which increased beyond the traditional limits of the historic areas. However, the first suburban developments would soon be left behind with the rapid expansion registered since the late 1950s.

In 1956, the first Land Law was enacted in Spain and the process of urban planning began. In 1959, the Stabilisation Plan was approved, and economic planning and development began, seeking to open up the country's economy after more than twenty years of isolation and stagnation. In this context, the real industrialisation of the medium-sized cities began. The rapid expansion of the industrial areas and the increase in the number of workers in the urban factories would lead to an intense residential expansion. The economic and social development plans generated a process of territorial transformation that completely modified many medium-sized cities. In this context, industry played a key role in many cases. Some of the medium-sized cities were appointed Growth and/or Development Areas or they simply benefited from the investment dynamics within the framework of the new planning for national productive activity. The profound economic transformations that took place between 1960 and 1980 led to immediate social and, of course, spatial changes. During this period, most medium-sized cities doubled, tripled or even quadrupled their populations as a direct consequence of industrial settlement and investment. Likewise, urbanisation and sprawl were noteworthy, with the amount of urbanised space and the number of dwellings built multiplying in the same terms in just two decades. Industrial settlement brought with it the need for housing for the working population and, as a consequence, a huge growth in real estate. Housing estates, blocks of flats and other urban development projects sprang up rapidly. Well into the 1980s, thousands of new dwellings were built as a result of the industrial boom in such cities, and the effect on urban topography was directly proportional to the rate of industrialisation. In the diagram

of the urban structure, it is possible to appreciate the great real-estate extension of the city in this period, which encompassed approximately 40% of the current total built-up area of the average Spanish city. In addition to the residential extension, it is important, however, to note that, in the medium-sized cities, large industrial estates covering hundreds of hectares were developed, sometimes duplicating the area of the pre-existing city, and around these estates the edges of urban growth took shape. New high-capacity communication routes, ring roads and bypasses appeared and, in doing so, configured a new urban map. Both industrial and residential growth were massive but essentially compact, and they were generated in continuity with the previous urban areas. Medium-sized cities were clearly expanding, and new urban forms were being generated, but the “oil slick” growth pattern, which was more or less visible in most cases, remained unchanged. This trend has only been significantly modified in the last period under analysis; over the last four decades, this pattern has been altered and there has been a marked leap in scale.

During the 1990s, two urban planning regulations that determined a conception of urban planning encapsulated in the slogan “everything can be developed” were passed in Spain. These were the 1992 and 1998 Land Laws, which, under a precept of neoliberal land regulation, produced a type of city focused on the deregulation of the market and a positive vision of possible urban extension in practically any context of the urban environment. In this scenario, over the last few decades, in Spanish medium-sized cities, significant extensions have been created by means of new outskirts with a multitude of residential developments of different typologies (open-block, closed, low-density, etc.). These dynamics generated a phenomenon that had not occurred until this point at such an urban scale: the expansion of the city beyond its municipal boundary. This fact is decisive from the point of view of urban morphology and explains to a large extent the novel phenomenon of dispersion. An urban area begins to be generated as the city grows beyond its initial territory. New road and communication networks are generated (inner and outer ring roads) and the areas of the neighbouring municipalities are reached. Urban development in neighbouring municipalities is increasingly intense and, with municipal urban planning regulations that differ from those of the central city, the result is often dispersed and asymmetric.

This change of the compact medium-sized city model towards more extended urban structures has led to significant difficulties in terms of connections, mobility, services and infrastructures. It is precisely the use of roads, connections and infrastructures that has been largely responsible for the disproportionate growth of the average Spanish city in recent decades. One of the key elements in the extensive new occupation of the outskirts of these cities is to be found in the new areas of economic activity. From the mid-1980s to the 2000s, the surface areas dedicated to economic activities have shown the highest growth rates—much higher than in residential areas (over 300% compared to rates of 50%). Many municipalities have opted to develop significant pockets of land in the medium-sized cities themselves or in their surrounding areas, seeking new commercial and industrial projects in order to ensure financing, employment and competitiveness. This large supply of land for economic activities coincides, in most cases, with low rates of urban development and large interstitial spaces that are empty and, in many cases, underused. In this expansion towards the outskirts of urban areas, large estates that have hosted economic activities associated with production (industry), distribution (logistics) or trade (tertiary activity) have had a profound impact on the urban structures of medium-sized cities, which have grown considerably in recent decades as a result [61,68,72]. The specific impacts of all these transformations are illustrated in the examples of different cities shown in Figures 8 and 9, which reflect the growth experienced in the urban areas of Burgos, Palencia, Badajoz and Santander between 1987 and 2020.

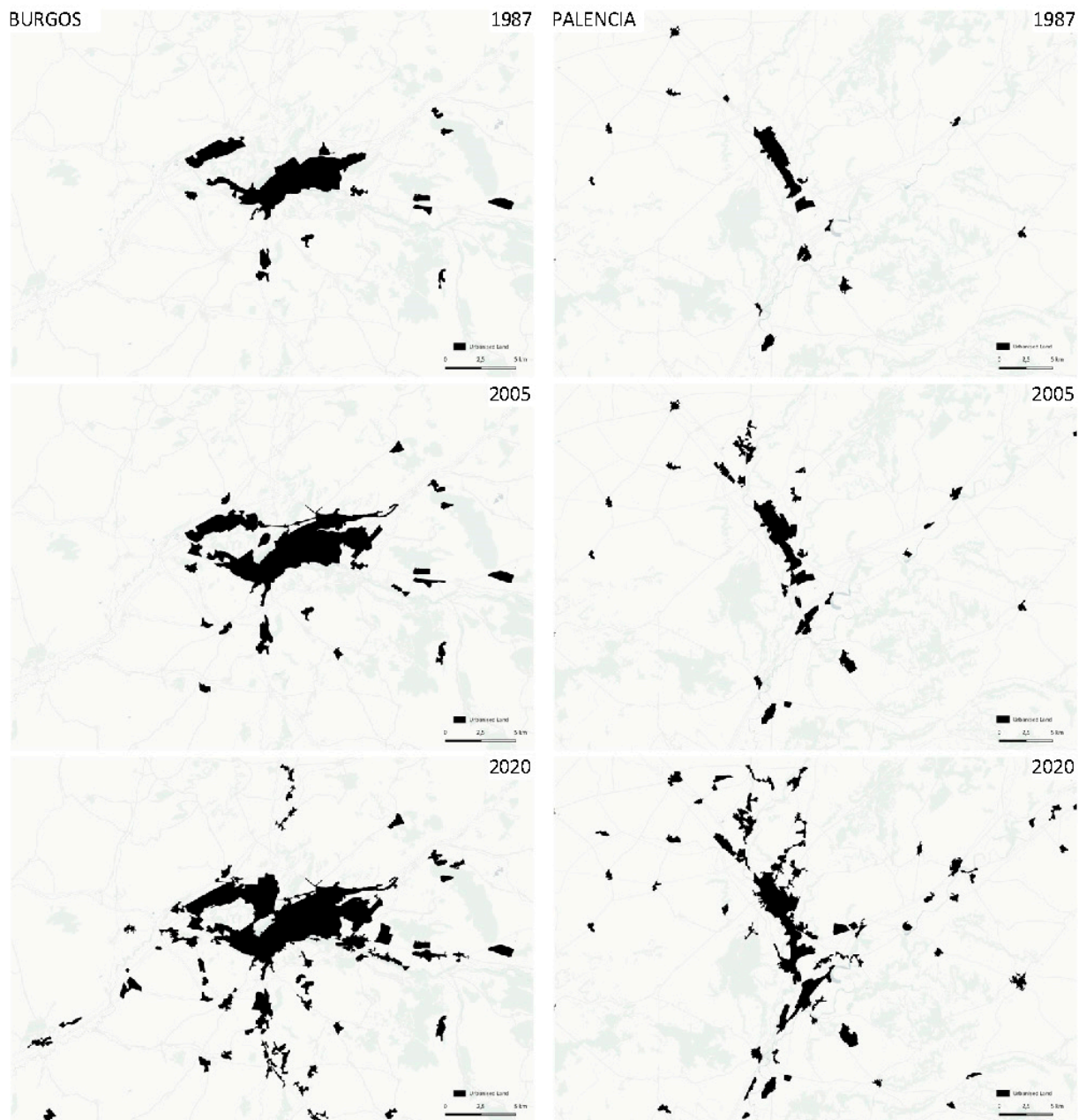


Figure 8. Evolution of urbanised land in medium-sized Spanish cities (1987–2020): urban areas of Burgos and Palencia. Author’s elaboration based on Corine Land Cover and PNOA Orthophoto, PNOA National Geographic Institute.

These are four medium-sized cities with different locations within the Peninsula which have different functional profiles and are of different sizes. Burgos and Palencia are identified as industrial cities located in the central–northern area of Spain, in a strategic communications position on the France–Portugal axis. Santander and Badajoz are cities more focused on service functions which have less productive intensity and more administrative and tertiary weight. Badajoz, in the region of Extremadura, serves for the analysis of the growth of a city in an essentially agricultural environment. Santander, next to the Cantabrian Sea, in the north of the country, presents a case related to tourism dynamics. Thus, the comparison of the four cases with different profiles is illustrative in examining growth in different urban centres. The mapping of artificialised land cover in Corine Land Cover was used and then updated with the orthophotography of the National Plan of the IGN to 2020. The result is very illustrative and offers an interesting sample of the modifica-

tion of the urban structures in these cities. It shows the profound morphological alteration, the remarkable expansion through dispersed growth, the leap towards the configuration of the urban area and, in short, the intense modification of the urbanisation model.

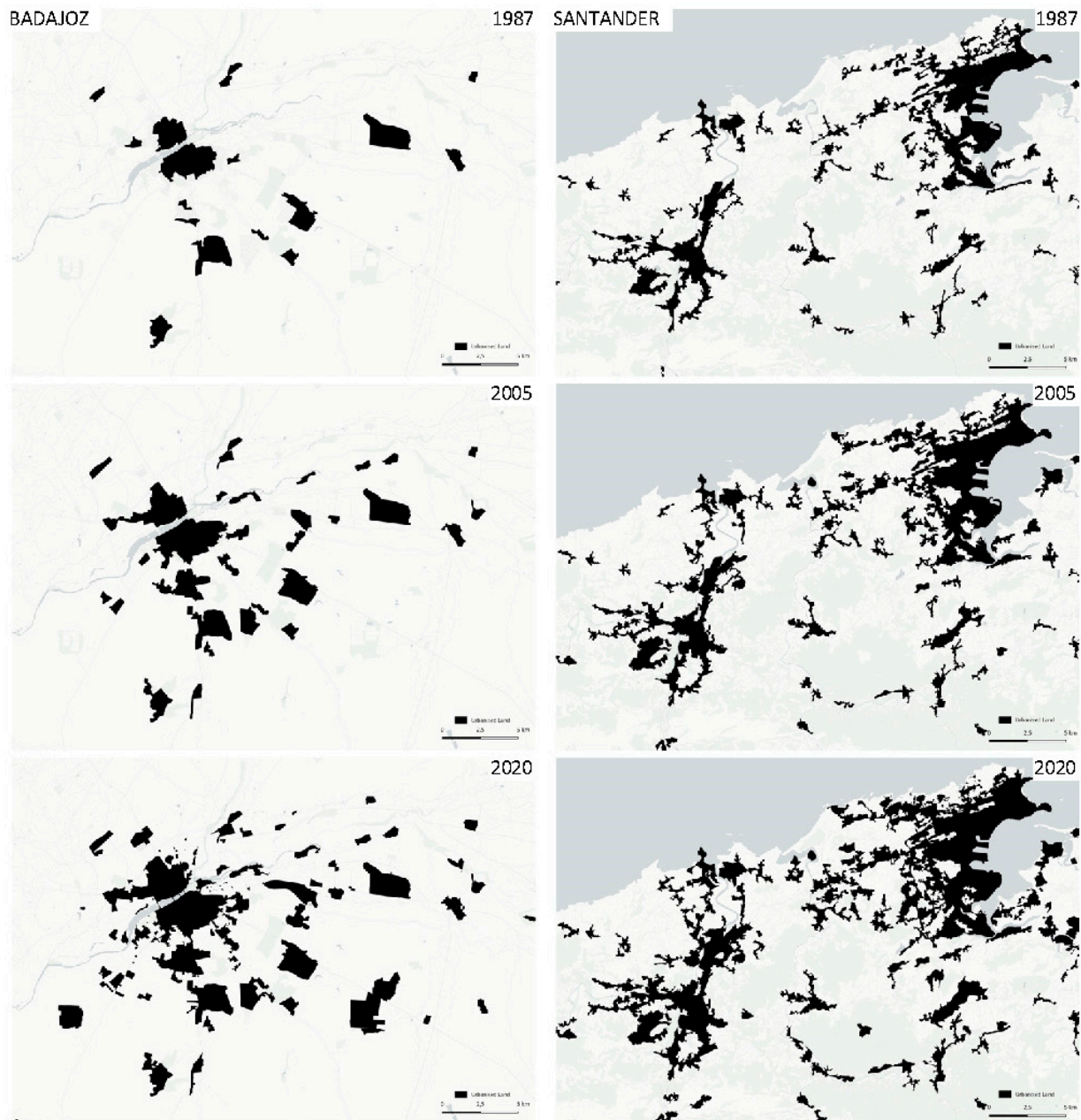


Figure 9. Evolution of urbanised land in medium-sized Spanish cities (1987–2020): urban areas of Badajoz and Santander. Author’s elaboration based on Corine Land Cover and PNOA Orthophoto, PNOA National Geographic Institute.

The maps show how, in medium-sized cities, the extent of urbanisation is multiplied by the addition of scattered pieces of land to the urban area. In each case, the data show that there has been a very remarkable change in urbanisation dynamics. In Burgos, the urbanised space increased from barely 2000 ha to almost 4000 ha; in Palencia, from 1200 ha to more than 2500 ha; in Santander, from barely 4000 ha to more than 7000 ha; and in Badajoz, from less than 3000 ha to more than 6000 ha. In barely four decades, the footprint of urbanisation doubled, and, as the cartography shows, the discontinuous stain is clearly spreading. In Burgos and Palencia, although there is a clear dispersion with many

small packages of land on the outskirts, there is still a certain continuity in the form of urbanisation. However, in Badajoz and Santander, the impact of dispersion is even more noticeable. Fragmentary urban elements with a new structure that is much more dispersed and discontinuous are very visible, and large pockets of urbanised land can be observed far from the previous continuous urbanised area. In all cases, these modifications became more intense in the last two decades, coinciding with the period of the real-estate boom described above. These new configurations, therefore, already provide the outline for a new model of a consolidated city as a transformed, complex urban morphology defined by dispersion and discontinuity. The traditional compact city has definitively opened up towards the urban area, and the structures of medium-sized cities are already defined by this new reality. However, several recent studies have warned of demographic recession in these medium-sized cities. The marked process of depopulation in Spain's rural areas and in the interior of the peninsula especially has already spread to medium-sized cities in recent years. Data indicate that more than a third of these cities suffered a demographic decline between 2011 and 2021 [73,74]. This situation calls into even greater question the continuing model of indiscriminate expansion of urbanised land and opens the debate on the conflicts that will arise in the urban spaces of the 2030s.

4. Conclusions

Forecasts indicate that, by 2050, more than two thirds of the world's population will be living in urban areas, and in some European countries this figure has already been exceeded. It is clear that, in the context of the changes described above, appropriate growth planning is therefore necessary. If cities are growing more and more intensively, it is undesirable to maintain the model of uncontrolled expansion. Excessive land consumption, inefficient travel and energy costs, mobility difficulties, and problems of social disintegration are some of the main arguments against it. In the case of the Spanish cities studied, there has been a sharp slowdown in growth in recent years, but nevertheless, in the urban planning model, expansion is still being considered. According to data from 2018, the new development areas for urban expansion in Spanish municipal planning are expected to exceed 350,000 new hectares of land, with the potential for more than 6.5 million dwellings. This could increase the existing housing stock by more than 25% in the near future. In the current context of rethinking the urban model and achieving sustainability as we move towards 2030, Spanish urban planning continues to propose intensive growth and massive urbanisation featuring new real-estate developments. Of this, just over 2 million dwellings, in 102,000 m² of new sectors, correspond to medium-sized cities, where 30% of the new development is concentrated [49].

To foster this expectation of new urbanisation is to continue supporting the idea of a city in permanent growth—a city that extends by leaps and bounds—without a clear idea of whether such expansion should continue. This is a model of growth that is hardly sustainable in the current socio-economic situation according to the capitalist model. Many authors have developed dozens of arguments explaining the problems caused by the massive consumption of land through uncontrolled urbanisation. The impact on the surrounding rural environment; the extensive consumption of land in very large areas in which very low population densities are generated, with major problems in the provision of services and equipment; health, education, commercial management, etc.; the generation of socio-spatial segregation; and the appearance of fragmentation, isolation and disintegration are some of the main examples [32–34].

Clearly, this new scattered city model generates conflicts and there is a disconnection of these new forms of urban growth on this scale from the precepts of the new urbanism that seems to be conceived in the medium term. The urban spaces of the 2030 horizon are being conceived with resilient cities in mind—cities destined to undergo a delicate reconversion, with the aim of protecting and improving the lives of their inhabitants. There is a great contradiction in this, since, despite the reality of scattered, fragmented urban areas with diffuse boundaries, the “twenty-minute city” model is being pursued. The aim is

to develop accessible, sustainable and efficient cities. Safer, better planned, more inclusive, more permeable, more collaborative, better connected and, in short, more liveable urban spaces are sought. Several studies are already considering the interrelationship between urban morphology and the design of sustainable, cool and healthy cities [75]. All these approaches are identified in the guidelines defined by the United Nations in the Sustainable Development Goals (SDGs) of the 2030 Agenda, in the strategies of the Making Cities Resilient 2030 Programme and in the Spanish Urban Agenda 2030. Yet how is it possible to reconcile such precepts with the cities that in recent decades have voraciously consumed urbanised spaces without planning in accordance with their real demographic growth? There is a significant crisis in the urban planning model, at least at the scale of medium-sized cities. The correlation between the new strategic planning guidelines of the sustainable city horizon and the reality of the new structural model of the scattered city is unclear. Recent research on this issue still has limitations. Indeed, this study is conditioned by the speed and variability of the changes in recent years, some of which are still in progress. New avenues for research are opening up. It is necessary to study the impact of the recent crises on this debate in order to measure the extent to which the socio-economic downturn has had an impact on the consideration of the forms of urban growth. It will be necessary to analyse changes in the morphology of cities. It is necessary to consider not only their spatial divisions, but also the new social maps. Inequality, residential segregation and socio-spatial differentiation are determinant aspects of the city at the beginning of the 21st century. There is a wide field of work concerned with analysing their impacts on the structures of cities.

The truth is that these contradictions exist if we consider the correlation between the recent evolution of Spanish cities and their possible development in the medium term, taking into account the general context of the recent transformation of urban spaces that we have analysed. During the last twenty years, there have been intense periods of expansion and crisis which have had obvious repercussions in the territory, increasing the concentration of populations in cities and affecting their structures, forms and landscapes. Imbalances in economic systems, social inequalities, epidemics and health pandemics, climate change, the transformation of energy models, natural disasters, and armed conflicts have shaped a new global scenario in which cities are becoming increasingly important. Today, we are witnessing a time of change defined by deep uncertainty and great challenges brought about by instability. The year 2020 has undoubtedly been a key milestone for reconsidering the way of life in cities, and movement down a road of no return as regards the goal of shaping new urban spaces by 2030 has begun.

The development of these new urban areas requires new methods of planning, urban management and policies that provide solutions to the problems caused by the recent processes of massive urbanisation and reflect on the compactness–dispersion dichotomy. The city of the future also needs to consider new social relations, economic exchanges, and the transmission of knowledge and information, as well as incorporating new mobility and connectivity systems through networks that integrate the communication of people and their activities. Likewise, the new cities demand a rethinking of the role of culture and its interrelation with tourism, urban images and the construction of collective identities. The challenge of social integration and the search for equality, correcting the intense processes of segregation and the socio-economic imbalances of previous urban models, is of course strongly expressed, and all of this is integrated into the concept of a new sustainable city—a city that considers the problems of climate change and is committed to energy efficiency and improving the living conditions of the population—as part of the global challenge of adapting urban habitats over the coming decades and, more urgently, in the current decade.

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