URBAN DEVELOPMENTAL PROCESSES IN SPAIN
NEW FACTORS AND NEW TENDENCIES

Manuel Valenzuela Rubio. Universidad Autónoma de Madrid

Julia Salom Carrasco. Universidad de Valencia

I. INTRODUCTION

Authors have accepted to write on recent urban development processes in Spain and to have the paper included in **Spanish Contribution to the 31st International Congress of Geography (Tunis, August 2008)** with a certain powerlessness; we feel somewhat overwhelmed by the gigantic task of enclosing in the few pages we are allowed a reality that, apart from being complex and confused, has already being the object of many academic studies and publications. Therefore, our task has to be carried out with the will to offer geographers a useful and worthy product but also from a humble position as we are sure that, even in the best of the hypothesis, our work will present more shadows than lights. We are just glad to be able to help our foreign colleagues to improve their information on the distressed reality of urban development in Spain at the 20th into the 21st century turning point, and to give our fellow countrymen/women a coherent and updated portrait. We have had to drink from a bibliography with very different although basically Spanish origins, and next to works by geographers there are also works from many other disciplines (architects, sociologists, economists, etc.).

Another question to be explained before starting on our exposition is the time framework for our work. We know that it is almost impossible to define because no human process or tendency has a precise starting point; they are on the contrary continuous realities with no complete breaks but inflections on the flow. Therefore, hoping for pragmatism, we have chosen to refer to the last stage of urban economic prosperity: a large part of the '90s and the first decade of the 21st century. We can talk, then, of a transitional stage between both centuries, which has promoted urban economicity in general but which has also brought out conflicting factors worldwide,

the solution of which is not still easy to see. There are, however, alarming symptoms that prosperity, which for good or evil has had so much influence on urban development processes and trends in Spain, is about to end. It seems that another inflection is to be foreseen. Maybe in some other future contribution to another academic event somebody else will study its trace over Spanish cities and metropolis on the next decades.

II. URBAN-TERRITORIAL STRUCTURES: THE URBAN FRAME

At this turning point of the 20th century into the 21st century, some authors have also seen a cycle change in urban dynamics, which is clearly visible on main Spanish metropolitan areas (Nel.lo, 2004:534-538), related to the concentration-de-concentration of population and economic activities. It is true that the Spanish model follows in both dimensions the same pattern than European metropolis have been following in the last 50 years; however, there are changes in the *timing* and scale of said dynamics. For the quoted author, the middle-sized metropolitan areas (Sevilla, Málaga, Valencia) find themselves now in a stage of absolute de-concentration, while Bilbao and Barcelona are entering in a stage of re-centralization, and Madrid has already finished the whole cycle being in its last stage (Nel.lo, 2004:538). However, the fact that the central cities of the metropolitan areas have reverted their demographic fall and are recovering their economic relevance thanks, above all, to the turn of the higher tertiary sector, does not imply that land urban diffusion processes have been arrested. In fact, the third stage of the metropolization process is characterised by a clear growth of the central city compatible with an increased urban dispersion over metropolitan land (Nel.lo, 2007:30). Consequently, in the first years of the 21st century, as long as the "real estate boom" lasted, there has been a true paroxisme of de-concentration both of housing and productive activities. The "dispersed city" model and its sequels over land and environment are, then, reinforced in the present stage of 'universal urban development' to which Spain has also yielded (Monclús, 1998).

Therefore, it is appropriate to make a reference to how this reinforced tendency has finally cut through the thousand-years-old trilogy of urban areas (one population, one territory and one political-administrative circumscription), but it has also broken up the centre-periphery dichotomy (Ferrâo, 2004:517-518). For some authors the proliferation of suburbanization processes and the exportation of industrial activities to rings

increasingly more distant from traditional centres, with the subsequent creation of endless peripheries, means that the stage of cities/towns is finished with the disappearance of the countryside/city dichotomy (Roca, 2004:501). Spain has not remained aside of the new stage marked by the diffusion of the city over the land and by the strengthening of the metropolization process. In 2006, 1054 municipalities were integrated in urban areas and only 18 of the largest 83 urban areas enclosed one municipality. However, the knowledge of the growing urbanization of Spanish land must not make us forget that there are large inner differences in the Spanish urban system either about their size or about their physical expansion and their economic dynamics, that result in the differentiation of land (Troitiño, 2007:27-30).

Spanish geographers have studied the Spanish urban system either at a state scale and at regional and provincial scales at least since the '60s, and they have produced relevant scientific papers and applications. Since then, deep economic and political changes have happened and have affected undoubtedly the re-organization of Spanish urban network and its capacity to structure territory. There are regional urban grids (Andalusia), even urban corridors within some concrete land contexts (frontiers, railway, rivers, etc.) full of a large vitality and potential to organize the territory (Lozano, 2007). It is clear the relevance of the metropolization process, much stronger in the Mediterranean regions, combined with the improvement of communications (for instance, the network of highways and of High Speed Trains), with the creation of regional capital cities or the de-centralization of Universities, apart from the possibilities offered by mass implementation of I.T.s to urban network re-organization (Vilagrasa, 1995; Valenzuela, 2000; Precedo, 2003: 23; Vázquez & Corbera, 2003:138-142).

Most attention, undoubtedly, has been paid to the definition and delimitation of metropolitan areas which are created with nation-wide and regional boundaries (Feria, 2003:96-97); the seven largest areas (Valencia, Sevilla, Bilbao, Málaga and Zaragoza, all of them with more than 500,000 inhabitants, plus the two international-level metropolis of Madrid and Barcelona, which are true MEGAs and 'European engines'[1])

[1] The qualification of M.E.G.A. (*Metropolitan Economic Growh Areas*) is based on the parameters of demographic mass, competitiveness, connectivity and knowledge concentration, according to the *Informe Intermedio sobre la Cohesión Territorial en la Unión Europea* (2004).

have been analysed the most by the new methodologies and can be used to decide whether they are urban regions or metropolitan regions. In any case, the Spanish metropolitan phenomenon presents a range of middle situations from the 'compact city', as shown by the highest densities in Europe, to the 'dispersed city', resulting from recent processes of economic de-concentration and residential suburbanization, including their hybrid variety (the 'concentrated de-concentration'), the antechamber to 'multiple nuclei conurbation' in a budding degree[2]. Instances are found in the metropolitan areas of Elche-Alicante, Granada or Murcia (Serrano, 2005). Every large metropolitan areas are characterized by some kind of capital city functionality, and by a large activity range and a large economic and cultural diffusion capacity at the regional, state and international level.

Much attention is also paid to the opposing sub-system in Spanish urban hierarchy: the middle-sized towns or centres (with 20,000 to 200,000 inhabitants) that are not part of a metropolitan area. They are different entities in inland regions such as Castilla y León, Extremadura and Castilla-La Mancha, but they are also on the coast as in Galicia or Asturias, in regions that usually lack a dominant metropolitan centre, the role played by Madrid in the Meseta regions. There are plenty of middle-sized towns in regions with one or several metropolitan areas (Andalusia, Aragón, the Basque Country or Catalonia and the Valencian Community) (Vilagrasa, 1995; Salom, 1992). An updated approach to the Spanish urban system is given in the most recent edition of *Atlas Estadístico de las Áreas Urbanas de España de 2006,* where it is concluded that it is "*an out of balance, little hierarchized urban system, unable to manage and mobilize the territory in a balanced manner" (*Troitiño, 2007:28)

III. TRENDS IN RECENT URBAN DEVELOPMENTAL PROCESS

III.1. Economic factors driving present urban developmental trends in Spain

There are many and enough reasons to turn cities into economic development privileged spaces, because communication and transport structures locate in them, training and research centres are attracted by them, while any advanced services want to locate there to generate information, flexibility and competence. All of which is essential for any

[2] The multiple nuclei conurbation in Spain, understood as a metropolitan area made up by several differently-sized cities that complement each other without a dominant centre, only exists in secondary metropolitan areas: Cádiz' Bay and Asturias' central county (*Ciudad Astur)* (Rodríguez & Menéndez, 1999), and in a lesser measure, in the San Sebastián-Bayona Corridor (Lozano, 2007).

economical activity. Besides, the economic power of every city is reinforced by its accessibility from abroad through highways, high-speed trains, ports or airports. From the different transport infrastructures that are carried out at present, there is no doubt that the airport and the high-speed train are thought to be components for opportunity and economic competitiveness (Ganau & Vilagrasa, 2003:44-47; Fernández García, 2005).

In the last two decades, the role played by cities in the economical development of the country in general and of their location regions in particular has been revised in depth. Said revision has proved the relevance of cities as developmental engines, a concept that is better applied to urban agglomerations and metropolis where the new tendency can be much easily seen after the strong economic re-structuration processes-caused urban crisis of the the '70s and '80s, the Spanish consequences of which have been so well studied (Caravaca, 1991; Caravaca & Méndez, 1995; Méndez & Caravaca, 1993). As it is well known, it is in them where the characteristic activities of present post-industrial urban stage (any of the several versions of the higher tertiary: managerial, innovating, financial, etc.) do concentrate and are articulated. Consequently, any large metropolis is going to come out strengthened by the capitalistic re-structuration process and they have become the dominant spatial forms governing the behaviour of global economic system.

If we apply this approach to Spain, Madrid and Barcelona have experienced in the last two decades deep social-economic and productive structures changes, and these changes enable them to act not only as developmental engines for the whole country but also as ‘kneecaps’ between the Spanish and the international economy, although they are not true global cities (Castells, 1990; Valenzuela, 1999). In this sense, it is very relevant that both cities are the entrance gate for most foreign direct investments (I.D.E. in Spanish) in Spain (Estébanez, Molina & Pérez, 1993; Martínez-Roda, 2000), even though their final destination is some other Spanish regions. Due to a mixture of factors, Madrid received 40.9 % of the total amount of foreign investments in Spain versus 28.1% of the total in Catalonia in the decade of 1987-1997 (Durán, 1999: 25-

26)[3]. However, Barcelona is much better located in relation to the two large growth axis of the Spanish economy (the Ebro river basin and the Mediterranean Arch). Although both cities are physically remote from the big urban development European axes, located around the North Sea and the Rhine river axis (the Central European urban 'pentagon'), both Barcelona and Madrid have experienced relevant progresses in the '*ranking'* used to determine their attraction as investment destination in relation to other large European cities (Observatorio Económico, 2007:103-105). Apart from them, other dynamic metropolitan environments are consolidated in Valencia, Sevilla, Bilbao, Zaragoza or Valladolid in the peninsula and in Palma de Mallorca in the Balearic Islands. All of them are the undoubted economical leaders of their respective influence areas and they may even reach larger scales; some of them (Valencia, Bilbao and Palma) have been designated as potential MEGAs and Sevilla as a weak MEGA in the European Community document quoted in footnote 1. Valencia's metropolitan area (1.3 million of inhabitants) is a telling instance of how an outstanding economical growth is founded over agglomeration and scale economies, and it has made clear that "urban environment has shown to be the physical space most attractive for industrial activities both for the relevance of the market and for the offer of large amounts of quality workers" (Ponce, 2003:333)

The correlation between a powerful urban grid and regional economic dynamics is not always as significant, although the most urban developed regions usually are better endowed to face globalisation as 'winners'. However, economic recovery and the likelihood of an efficient competition within a globalised context may also appear away from urban regions but always when they are integrated in territorial innovation systems (Salom, 2003: 8-9). It is true, however, that urban economicity does not promote in the same way every activity in present juncture. The overcoming of the de-industrialising stage of the '70s-'80s has opened the way to a flowering of activities with a certain technological content (electronics and I.T., pharmaceutics, bio-technology and aeronautics, among others) and to every kind of industry-complementary services (engineering, design, advertising, marketing, etc.); the increasing industrial tertiarisation is specifically patent in urban and metropolitan areas where it can be already talked

[3] According to the Dirección General de Transacciones Exteriores, in the period of 1993-2005, the Comunidad de Madrid received 51.25 % of the total IDE in Spain, a percentage that is undoubtedly hypertrophied by the combined effects of 'capital city' and ' seat" (Myro & Delgado, 2007:74).

about 'servindustrial' economies (Rubalcaba, 1998; Caravaca & Mendez, 2003:40; 2005; Caravaca, 2007:457). In general, urban tertiarisation with its dense foliage of (advanced, innovation, companies, managerial, etc.) services mirrors globalisation in the city; the traditional tertiary sector preference for central urban space was stressed in the '90s by tendencies of central urban renewal and redevelopment that followed after the urban destruction processes of the two previous decades (Moreno, 1997). However, after the change of century, the de-concentration of every tertiary activity towards suburban rings has caused the appearance of specialised 'islands' that, somehow, follow the wake of North-American '*edge cities'* (for instance, the Santander Bank City).

Fairs and conventions activities have a strong relationship with cities and an increasing weight on city success and competitiveness within present globalisation process of the economy; their transversal connection with the whole productive system and with the most remotely-related (scientific, cultural, etc.) activities turn them into a true connecting 'kneecap' between local and global interests (Gamir, 1999:40). In fact, local authorities and enterprising organisations have the idea that the performance of a fairs and conventions holding activity implies progress and modernity for a city, regardless of its size and economic specialisation[4]. It is also relevant the large driving capacity that these activities have over a wide range of economic sectors (transport, hotels and restaurants, shopping, leisure, culture, etc.). Besides, it is not menial the architectonic and urban developmental influence of fairs and conventions holding activities, translated into unique buildings, many of them true urban milestones (specially, the convention palaces) and the construction of new enclosures that can affect the organisation of large areas of the city and its spatial development. Naturally, all of this is clearly visible in large cities; Madrid, Barcelona, Valencia, Bilbao or Sevilla profit very much from their competition to attract events because of their quality installations, their hotels, cultural and amenities offer, apart from their own patrimonial

[4] The Federación Española de Municipios y Provincias (Spanish Federation of Provinces and Municipalities) (FEMP in Spanish) has sponsored the creation of *Spain Convention Bureau* to promote and coordinate convention holding activity in Spain; it is integrated by the specialised departments of more than 30 conventions cities. A similar function is carried out in the private field by the Asociación de Ferias Españolas (Spanish Fairs Association) (AFE in Spanish), an association of large fairs-holding entities (with more than 100,000 m2 of exhibition surface).

and local wealth. Therefore, the so-called metropolitan or business tourism opens large opportunities to post-industrial metropolis (Valenzuela, 1992, 1998, 2007)[5] .

III.2. Influence of technological innovations on urban developmental processes in Spain

Throughout the two last decades, technological innovations have increased their relevance in the evolution of Spanish populations from different (spatial, economic, residential and living styles, etc.) points of views. In concrete, the improvement of conventional and advanced communication infrastructures has resulted in the re-location of many of them within Spanish urban network, in their spatial diffusion and on their impact on non-urban environment (labour, residential, amenities, etc.). The above results in mobility improvement translated into a new relationship between different land places at different regional, statel and international scales. If we focus on urban developmental processes, spatial diffusion and periphery creation is only understood within a context of a high mobility and the consequent enlargement of labour and housing markets (Angelet, 2000; Salom, 2007). Likewise, in the last ten years urban developments have taken over the tourist coast much more intensively than over metropolitan areas due to the improvement of railway, road and air communications.

It is still early to weight the impact that the new communication and information technologies (TICs, in Spanish) have on the city, and to compare it with the effect generated by the telephone or the telegraph. There is no doubt that the implementation of present advanced communication networks is raising new problems and challenges, the solution of which is still to be found. To these technical difficulties, we can add financial and even regulation complexities; a good instance is the unequal and fragmented implementation of optical fiber networks and their chaotic competition with cellular phone operators. However, some spatial distribution patterns of Internet infrastructures already appear in Spain; the rule is to have them concentrating within the two large metropolis, which is justified not only by their demographic weight but by their being the largest concentrations of business companies activity and, above all, by

[5] Spanish metropolis have different standing within the fairs and conventions market; in 2001 Madrid monopolised 34.4% of the Spanish market share, Barcelona had 29.1 %, Valencia 20% and Bilbao 3.8 %. In relation to the wealth generated by fairs and conventions just in IFEMA (Institución Ferial de Madrid), it is assessed in 1500 millions of Euros (2004) and it affects labour market by creating 412 direct jobs and 35,000 indirect and related employments (Valenzuela, 2007:716-717).

the large volume of corporative users living in them (Vázquez & Corbera, 2003: 142). Moreover, large cities and metropolis are better prepared to integrate the public (universities, OPIs, etc.) and private (R+D labs of large companies) non-directly productive activities that are so much linked to innovation (Durán, 1999; Caravaca, 2006:34-35).

TICs are also present in public administration, in the productive sector and in urban homes in a thick and unequal manner. There are many public-funded programmes that intend to propagate them everywhere. There are EC-supported initiatives to implement TICs in every aspect of the public administration, although some people are against it either because of their ignorance or of their opposition to changes (Valenzuela & Vázquez, 2003). *Ciber-administration* is opening its way among public agencies supported by different urban networks (**Telecities** at the EC level, **Ciudades Digitales** at the Spanish level and **Infoville** at the Valencian Community level). Spanish cities are following so many and different ways towards the Information Society that their different situations (starting at the general interest for a new TICs-implemented city model) can not be easily compared (Ondátegui, 2006:84-91).

At the level of the metropolitan region, we have to refer to the spatial location of technological innovations embodied, since mid-80's, in technological, scientific or scientific-technological parks. Spain followed this trend somewhat delayed in relation to other countries (Castells & Hall, 2001). Most parks are located in suburban or peri-urban sites, which implies a functional and labour re-balance for metropolitan peripheries, but it also requires well-communicated spaces, a good accessibility, their being next to research centres, etc.

III.3. Social Changes and life styles

The foregoing technological transformations have had such an impact because they have coincided with significant social changes promoting mobility while changing growth patterns of Spanish urban areas. According to the time taken by changes and to their present existence, there are two types of factors.

First of all, Spain experienced a series of social and economic changes based on the economic take-off started in the '60s; these changes were strengthened by the economic

recovery of the '80s. This group of factors includes changes in consumption patterns, in family structure and behaviour, in housing and mobility preferences and attitudes, and these factors condition inner dynamics and morphology of urban areas. Their main results are the increased residence-labour mobility in urban environments, specially in metropolis, and an urban development pattern that is spreading increasingly.

In this sense, the increasing housing demand and the strong growth of the building sector experienced since late '80s are related to the increase in income and consumption levels and to the social changes associated to the reduction of fecundity (decrease of people per family unit, increase of single-parent families), both through the creation of new households and, in many cases, through the acquisition of a better home (Serrano, 2006: 139). Such a strong housing demand combines with the middle- and high-class preference for a residential model characterised by a detached house located in low-density and high-quality rural environments, demand that was easily satisfied by the growing building sector. The “status”-setting role of new marked functional and socially differenced residential spaces has been relevant to determine residential preferences (Santos, 2000: 674). The expansion of residential areas on metropolitan peripheries is also related to the relevance that housing ownership, as a saving means, has in Spain and which has motivated the acquisition of second and even third household units which, within a context of increasing mobility and accessibility, may turn into first residences (Herce, 2005: 47-48), generating the physical expansion of the “real city”.

Next to these tendencies resulting in the territorial enlargement of the city, in the creation of a dispersed settlement model and in shifting from the then-prevailing centre-periphery model to a multiple nuclei model (Nel.lo, 2004; Herce, 2005), another group of factors closely related to migratory movements to and from the city has appeared recently. They affect specially the demographic size of cities and their different behaviour depending on their size.

Since 1975, the growth of large urban areas had slowed down due to the change motivated in the behaviour of inner migrations, while population growth concentrated in middle-size and small towns located in the metropolitan periphery or in the influence area of province capital towns (Romero & Albertos, 1993: 132). However, since mid-

'90s, trends changed again and it started a new centralizing urban cycle (Nel.lo, 2004: 540). Since then, Spain has turned for the first time in the century into a migration-receiving country, of migrants that come most of them from non-European countries. In a few years, immigrants that were around 1% of the resident population (346,553 people in the Population Census of 1991) became almost 10% (4,482,568 registered foreigners according to the Municipal Registration Advance dated January 1st, 2007).

This population is concentrated mainly in the metropolitan areas of the Mediterranean coast and in Madrid, where the most relevant labour market (intensive farming, tourism) and the largest housing offer are. Any new immigrant locates in central cities (Bayona, 2007), where they may find cheaper housing, a better access to public transportation and to social services, and where there are population groups with their same origin (Nel.lo, 2004: 539-540). The arrival to the Spanish cities of this young, child-bearing and population-creating immigrant has resulted, on one side, in an increase of the demographic growth and, on the other, in the re-centralisation of metropolitan growth. From that moment on, the central municipality will lose indigenous population but it will also win foreign inhabitants that may set-off its populations losses (Nel.lo, 2004: 540).

III.4. The new tourist-leisure uses

One of the most significant socially, economically and spatially relevant processes in Spain since mid-20th century is the diffusion of tourist activities. Due to the prevalence of Sun-and-Beach tourism as the main product, its highest impact has been on the seaside, on the Mediterranean coast and islands basically, where it has played an important role in land planning. In those areas, the radical change of early social-economic bases has given place to new territorial systems through the re-organisation of previous population and the creation of infrastructures, equipment/services and lodging, which have shaped a new centrality in the model of territorial organisation (López Palomeque & Vera, 2001: 557). The existence of a non-hotel lodging offer grants tourism an important real estate side, focused in the promotion and sale of housing; its territorial impact has been significant (Vera & Baños, 1995: 33).

Tourist urban development overlays urban growth of the main Mediterranean metropolitan areas and space, which means that land occupation levels are really high.

The new settlement structures are characterised by their linearity, the creation of a coastal conurbation in large areas of the Mediterranean arch, and the growth polarity on the coastal axis. Tourist urban developmental processes are, most times, unplanned and spontaneous and they have a local scale. Therefore, in spite of their physical continuity, they are a series of fragmentary urbanized spaces that lack any true urban articulation (López Palomeque & Vera, 2001: 559 and *ff*.).

Recently, some new tourist products have shown to have much territorial impact; many of them are created by public policies for rural area diversification or for mature tourist destination qualification. Two of these new processes are as follows:

First of all, coastal second homes close to large urban centres integrate into metropolitan dynamics. This phenomenon has been found in tourist areas close to Barcelona's Metropolitan Area (Pallarès & Riera, 1991; González Reverté, 2003,). These spaces, suffering a strong demographic and urban growth, may present serious problems derived from an urban model that does not allow achieving a global and strategic view over the territory, as well as social polarity processes due to the existence of many socially homogeneous, fragmented and half-autonomous residential centres (González Reverté, 2004: 21).

In the second place, the creation of a new tourist product, golf tourism. In many cases, it has been promoted politically as a developing strategy for marginal areas or as a re-qualifying tool for other consolidated tourist areas. The building of golf links is found to be a relevant strategy to achieve the de-seasonalisation and re-qualification of tourist activities, because it is a sector with a growing demand and it generates some daily expenses per visitor that are much higher than those generated by other tourism segments. However, the creation of most golf links is linked to urban actions that take advantage of the higher flexibility they are granted by urban planning acts and tourism regulations (Andrés, 2004: 46 and *ff*.). Their development is generating significant territorial changes. The process has been so strong in the last years that specific regional laws have been passed to control, with different intensity and fortune, this process and to minimize its environmental impact[6].

[6] For instance, Act 12/1988, dated November 17th, on Golf Links in the Balearic Islands; Act 4/2000, dated March 22nd, on Golf Links Building and Enlargement Moratory in the Pitiusas Islands (The

III.5. Urban developmental regulation framework and land planning

The foregoing economic, social and land trends have acted on a regulation context that has not been able to control and channel any spontaneous processes. Its main defficiencies are derived from a relevant institutional fragmentation and its associated coordination problems, from limitations of supra-local planning and coordinating instruments, and from tendencies towards an urban development de-regulation and a larger activity of private agents.

Some recent researches (Romero, 2005: 64 y ss.) have talked critically about the low efficiency and development of the coordination instruments that ought to have been the counterpoint to the regional de-centralisation process of urban development and land planning questions existing in Spain since 1978. There are coordination problems between state sectorial planning areas and between state planning and local and regional land planning institutions. This problems gets worse by local treasury limitations, which in fact do condition urban development conduct. In this sense, the delay in drawing and implementing regional land planning instruments (land plans and programmes) has limited the possibilities for an efficient coordination of supra-local land policies (Feria *et al*., 2005: 105-106). Moreover, any passed plans have not been adequate due to their high flexibility and to the few regulations related to urban developmental restraints (García-Bellido, 2004: 9).

General land planning schemes are very weak due to the general diffusion on Spanish urban development of the so-called "project culture". According to this approach, a significant project is seen as the most efficient alternate to the crisis of any conventional planning, and it seems to be most appropriate in present circumstances, which require a larger flexibility of planning instruments (Nel.lo, 1995: 788). However, said flexibility implies that procedures, plans and regulations are in a second place behind any significant initiatives, exceptional projects and special plans that do not always meet the requirements of efficiency and private enterprise participation while having, in some

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Balearic Islands Government); Environmental Directing Plan on Golf Links in Catalonia passed by the Government of Catalonia (2001); Valencian Community Act 9/2006, dated December 5th, about Golf Links Regulations; and draft order about Golf Links Building by the Government of Andalusia, with was withdrawn on August 2006 after almost three years of work.

cases, undesirable effects: dualisation of employment market, urban fragmentation, a weak participation and democratic accounting, etc. (Rodríguez *et al*., 2001, p: 420-421).

Lastly, several studies have analysed land effects of a state and regional[7] regulation that accepts de-regulation and makes possible a larger intervention of private agents in urban development. This shift has been understood as the political answer to Spanish economic changes since mid-'80s, when a neo-liberal approach spread out promoted by the progress from the Fordist productive system to the post-Fordist system and by the entrance of Spanish and foreign capital into the building sector (Rullán, 1999: 10 and ff.).

In the most paradigmatic Valencian case, the application of the new political framework has brought the enlargement of urban land, an unknown increase of private investment in public urban development works, and an outstanding decrease of urban development costs[8] (Modrego, 2000: 18). This normative and its resulting flexibility have had very negative effects, because many town councils have left planning in the hands of private agents who have become the only interlocutor of local authorities in the new land production process. It has implied, on one side, the re-qualification and/or programming of large amounts of land and, on the other, the creation of non-adequate urban figures, specially in cases when the general land planning framework is not strict in the definition and specification of urban land structural elements, as shown by Navarro Vera *et al.* (2000) in relation to the town of Alicante.

Versus this complex scenario, we have to point out other recent and positive aspects such as the introduction of new land planning approaches: environmental assessment of plans and programmes, landscape protection[9] and institutional cooperation and participation in the so-called "new land regulation". However, proposals for inter-local

[7] With a state scope, Act 6/1998 dated April 13th on Land Regime and Values. Its regional prototype is Act 6/94 on Urban Development Activities Regulation in the Valencian Community, although other Autonomous Communities –Castilla la Mancha, Extremadura and, possibly, Andalusia, Asturias, Navarra, Castilla y León, Canarias and Madrid- later on introduced in their respective legislation similar systems (Roger, 2005: 143). However, some regions have tried to restrain the out-of-control and diffused growth of urbanizable land, for instance, Castilla y León, Castilla la Mancha, or Extremadura (Izquierdo, 2004: 56-58).

[8] Although its main object, to decrease housing prices, has not been proved (Gaja, 2001: 89, 98).

[9] Landscape protection is the subject of some specific acts in the Autonomous Communities of Catalonia and Valencia; it is in process in Baleares, Galicia and Castilla-La Mancha. Geographers have carried out some outstanding work along these new legal measures (Mata & Tarraga, 2000).

cooperation are few but significant, and many of them have not reached the hoped-for results (Romero, 2005: 71 *ff*.). The most significant figure since late '80s is the strategic plan, due to the relevance that some pioneering plans, those of Barcelona (the first of them, in 1988) and Bilbao (1989), had as models. Their scale, however, was local and not metropolitan, and their approach was basically economical and in a lesser measure social and territorial (Farinós *et al*., 2005: 132).

III.6. The issue of urban sustainability in Spain, a question still pending

Since 1990 when the *Libro Verde del Medio Ambiente Urbano* (Green Book of Urban Environment) appeared in Madrid, the interest to achieve sustainability in cities and towns has spread to many other inter-governmental bodies: European Council, OCDE and, above all, the UN through its agency on human settlements (**Habitat Agency**). An important milestone in the long road towards urban sustainability was the **2nd UN Conference on Urban Settlements** held in Istanbul in 1996, when a **Good Practices Programme** was started as an international two-yearly contest to which initiatives improving living conditions of citizens could be submitted.

In Spain, the concern for the negative effects of urban expansion on environment dates back to the '80s; it is focused on the impact of land development over peri-urban land and on its rights of way related to (food, energy or building) resources extraction, to the transfer of all kind of large (hydraulic, airport, etc) infrastructures to metropolitan environment or to the issue of spills and wastes generated by urban metabolism. The so-called 'urban ecological trace' of large metropolis can even go beyond its regional and state level, towards a global scale (Mulero Mendigorri, 1998: 181-182). Therefore, it is clear that urban environmental degradation reaches beyond any urban development in its strict meaning. However, land consumption is the most significant indicator of the risk to sustainability that urban diffusion processes present for land, as many natural spaces, the most fertile agrarian and valuable lands, those next to river or sea banks, are sacrificed to it. In the specific case of Madrid, it is seen that, from 1957 to 1980, urban land consumption per inhabitant had two-folded (García Zaldívar *et al*., 1984). Since then, the pace of land occupation has increased due to the generalization of dispersed urban development as the form for urban development diffusion both in metropolitan peripheries and in coastal tourist areas (Naredo & Valero, 1999). The city physical growth is promoted not by the demands from urban functions (housing, productive

activities, infrastructures and services, etc.), but by the *modus operandi* of real estate business that acquires much rural land to have it re-qualified and built it up later. In this sense, builders-real estate promoters have always had powerful allies both in land regulations, from the first Land Act (1956) to the last Act passed in the 20th century (1998), and in public administrations, specifically in the local authorities (Naredo, 2003:40-45). A similar argument is valid also for the consumption of other basic land resources such as water, building materials, electricity or fossile fuels, among others.

From data supplied by *Corine Land Cover,* it is clear that land occupation through urban development in Spain was larger than the land occupation experienced by all the Fifteen Countries of the European Union in the '90s; a trend that has increased even more in the recent years of building euphoria. Naturally, the exorbitant and basically residential building activity of these recent years is not only due to the domestic demand of a permanent household, result of a demographic growth, but to the pressure that on real estate has exercised the demand of very different segments: domestic speculative investment due to the crisis of exchange markets, acquisition of second homes in tourist areas, demand of immigrants and, above all, the mass incorporation of international capital to Spanish tourist sector. This building frenzy has been triggered by the next to last Land Act (1998), that provided that all land was urbanizable save for the land protected by agrarian, environmental or cultural reasons.

It was not easy to counter the active urbanizing trends even though the Spanish Ministry for Environment was created in mid-'90s (1996). It is true that since then there have been multiple initiatives wanting to turn the city into the basis on which urban sustainability strategies were founded, as sponsored by international institutions (Feria, 2003). Public administrations have applied them with different results; thus, the Ministries for Environment and for Public Works have started to analyse the question of urban environment, to draw indicators for urban areas and their application to specific cities as well as to define strategies to achieve a sustainable urban development (Ministerio de Medio Ambiente, 2001 a & b, 2003). The Ministry for Public Works has devoted itself to arrange the two-yearly good practices contests, under the guidelines set by the UN Habitat Agency and to submit them to the international two-yearly meetings held in Dubai from 1996 until 2006, collaborating with the **Federación Española de**

Municipios y Provincias (FEMP)[10]. Some autonomous communities have drawn their own sustainability indicators (Andalusia and Basque Country, for instance) and one of them at least is convening good practices contests (Comunidad Foral de Navarra). Some county councils are also promoting urban sustainability on their respective lands; for instance, the *Diputación de Barcelona* has organised the **Red de Ciudades y Pueblos para la Sostenibilidad** (Cities and Villages Network for Sustainability) (González y de Lázaro: 2005:6). On their part, municipalities had played a significant role in the implementation of *Agenda Local 21* on their respective lands. Moreover, different ecologist movements (**Greenpeace** and **Ecologistas en Acción**) as well as other foundations (FIDA, Fundación de la Biodiversidad) and **Congresos Nacionales de Medio Ambiente (CONAMA)** have worked hard to create an interest for urban sustainability. In spite of this growing interest and concern for urban sustainability in Spain, there is not a general and efficient integration of urban planning instruments (Alonso García, 2006:35-40); although there are clear improvements of environmental quality in some residential estates in urban peripheries (López de Lucio, 2007:98-107). Some telling instances of the progress achieved towards the creation of sustainable urban communities are the 'eco-cities' of Valdespartera (Zaragoza), Sarriguren (Navarra), Ecópolis (Valencia) or the urban environmental improvement projects carried out or in progress in the Ensanche de Vallecas (Madrid), sponsored by the European Union .

IV. SOME INSTANCES OF PRESENT URBAN DEVELOPMENTAL PROCESSES IN SPAIN

IV.1 The urban impact of advanced transportation infrastructures: The Spanish High Speed Train (A.V.E. in Spanish)

The opening of the first A.V.E. (Spanish High Speed Train) line from Madrid to Sevilla in 1992, of the first section to Lérida of the line that is to link Madrid and the French border through Catalonia, and of the branch to Toledo (2005) has implied deep changes in the cities with AVE rail station as well as their re-location in the Spanish city

[10] The Sixth Good Practices Contest (2006) has been managed by the new Housing Ministry who are already working on the seventh (2008). The six first contests are published in the corresponding *Catálogo Español de Buenas Prácticas*, and its contents can be looked at in the web: http://www.habitat.aq.upm.es/dubai (in Spanish). A general view on contests and a synthesis and reflection on the Fourth Spanish Catalogue of Good Practices can be found in Fariña (2003)

network[11]. To start with, all these towns have improved their connection with the country Capital city, with other far-away large cities and even with their neighbours, all of which is making certain changes in the working of the Spanish city network. It is well known that the high speed railway network hierarchizes nodes (towns with railway station) in excess and that it does not benefit intermediate land (the 'tunnel effect'); however, versus this negative effect, the high speed railway network helps decisively to separate place of residence from place of work, extending thus pendular trips from and to outside of the conventional metropolitan areas while the functional and activity attraction exercised by towns with AVE railway station is enlarged much (Gutiérrez Puebla, 2004: 210-211, 216). The urban network re-organisation effect on the Spanish central area is already a fact in the case of Guadalajara, Toledo, Ciudad Real and Puertollano, and it will become shortly in the case of Valladolid and Segovia. The four Catalonian province capital towns will similarly re-locate themselves within Barcelona's labour market and function area. We also have to mention that the standing of town with AVE railway station implies an enlargement of its hinterland as well as a promotion in the hierarchy in relation to other settlements in the provincial or regional network; these are the cases of Ciudad Real and Puertollano, and the most noteworthy aspect is that both towns have increased their functional relationship to the point that they act as if they were an only urban entity (Ureña *et al.*, 2005: 11-13).

As in many other European cases, in Spain the high speed railway network has become a decisive factor in the modernization and dynamization process of towns with AVE railway station, because it starts a large range of new demographic and economic opportunities that go beyond accessibility, and affect demography and economy, as well as the reorganisation of the existing urban space, the later physical extension of the city, planning instruments and the town's own external image (Bellet, 2002:57-64). Analytical time perspective is only real for the towns in the first AVE line (Madrid-Sevilla), although its effect is already starting to be visible in the towns of the Madrid-Lleida line. In the first case and specifically in the intermediate cities (Ciudad Real, Puertollano and Córdoba) the demographic effect of the AVE railway network has not been as outstanding as some too optimistic estimations thought (González Yanci et al.,

[11] On December 2007 there took place the opening of the AVE line to Valladolid and the extension of the AVE line from Sevilla to Málaga. The AVE is to get to Barcelona in the first months of 2008.

2005:535); an explanation can be that high speed railway activates more pendular trips than residential movements.

On the contrary, from the point of view of economical actors, a good level of infrastructures increases investment profitability, and it is the reason for which the AVE railway has a clearly dynamic effect on urban economies. However, it does not imply that every activity sector is to benefit or profit in the same way; those that most profit are the advanced production services, in concrete those that require a good accessibility (urban, fair and conventions, events tourism). Logically, logistical activities also profit; in this sense, due to the AVE railway station and to its location equidistant from Madrid, Barcelona and the Basque Country, huge logistical installations called the PLA-ZA complex (Plataforma de Zaragoza) are prepared in Zaragoza. It is clear that the benefitial effects of the high speed railway network on city economy will be larger the better prepared is the city and more involved are the local agents, that is, when there is some kind of strategy to optimize the existing dynamics and to generate new opportunities. Such is the case of Lleida, where previously to the AVE line arrival, the administrations had decided to obtain the required studies to give them the analytical and planning instruments about the specific land aspects affected: land mobility, inter-modality, urban and economic re-structuration, urban and land image (Gómez Martin; López Palomeque & Cors Iglesias, 2004:98; Vilagrasa, 2001:502; Feliú, 2007:76).

AVE railway-related urban developmental transformations have been the most visible as it was necessary to build new stations or to re-arrange the existing stations and their environments, areas that were very sensitive as they took central locations next to the traditional centre (Bellet, 2002:71-74). The impact generated by railway stations has been slower and not so-generalized, but they have given place to new residential, or productive areas as well as new infrastructures (the private airport of Ciudad Real, for instance). Two situations are pointed out: the creation of new railway stations and the adaptation of the existing stations to the new functions. Ciudad Real, Córdoba, Sevilla or Zaragoza are instances of the first situation; both in Ciudad Real and in Córdoba, the building of the new station has released a large land plot in a central location, which once it has been re-qualified, has given place to a an urban development with a strong

visual and functional impact on the city[12]. In Sevilla the urban re-structuration resulting from the new railway station (Santa Justa) has involved the entire railway system in the city and it has given place to the laying of new tracks, the recovery of the Guadalquivir left bank and the rehabilitation of the old railway station of Plaza de Armas as a shopping and leisure area (González Yanci, 2005: 536-544). In Puertollano and Lleida the station is linked to the old railway premises through some enlargements or renewals with different urban impact (Cañizares, 2001; Bellet, 2002), which is the formula followed in Málaga. In Madrid, the Special Plan drawn for the Atocha Station and its surroundings enclosed a relevant enlargement where the AVE trains were to enter plus the re-arrangement of its accesses, while the station was functionally enriched with a tropical garden under the glass roof of the historical building. Works were also used to turn the new Atocha Station into the joint or 'gate' to the central town. The same case of Atocha, with some technical complexities, will be repeated in Barcelona where they built the AVE station embedded on the old Sants station and making use of the aged La Sagrera railway installations.

IV.2. The tourist urban development

Tourist urban development understood as the creation of specific urban spaces for leisure presents relevant differences from other urban processes both in its concept, its functionality, habitat and dynamics.

First of all and as a starting step, it is to be pointed out that, unlike other economic activities, tourist destination space in itself plays an important role for tourist activity. Therefore, unlike any conventional urban areas, the main object of any tourist urban development areas is to produce, sell and consume leisure instead of meeting needs of group consumption. Thus, the value of any tourist destination space comes from the use any potential or real user is ready to make and is a value that evolves in time; therefore, a tourist town is characterized by its flexibility and its continuous search for change (Antón, 1998: 26-27). Other distinctive features (Vera Rebollo, 1989: 281; Ponce, 2006: 109-110) are the fast growth of population and working force, the least relevance of some of its characteristic equipments (sports, leisure and health), its

[12] A similar transaction is to be carried out in Valladolid on an 80 ha landplot, located in the central place and nowadays occupied by some RENFE workshops and the old railway station, after it is buried.

multiple central places (none of the towns is the true pole and all of them offer the same menial functions, oriented all of them to tourism), and the fact that its main dynamics is the diffusion of residential functions all over the land, with no populations losses and no peripheral central place functions. On the other hand, work-residence mobility is tuned down as a consequence of the prevalence of leisure activities and of urban-tourist character.

Morphologically, it is characterized by a dispersed conurbation made up by a mixture of different occupation models: buildings along the seafront that re-value the beach as an essential resource in low and sandy coasts, either as new urban developments or as seaside villages or districts apart from the already existing urban structure; tourist-residential dispersed settlement over coastal hills or range slopes, typical of abrupt coasts; and *ex novo* estates, apart from the previously existing structure, as a result of real estate transactions oriented to tourism and second homes (Vera, 2001: 541-542).

Although some analysis point to signs that the situation has evolved with time so that in some regions economic growth is consuming scarce resources[13] (Andreu *et al.*, 2003) in an increasingly more efficient manner, the lack of plans has resulted in residential tourist offer generating such significant problems as environmental degradation, congestion and massification, which may come to a decay of tourist destination quality and of landscape and patrimonial values.

Therefore, it has been asked whether "residential tourist fragmented cities" are true cities. According to Ponce (2006: 110) in relation to the extensive urban developmental process models along Valencia coast, the urban forms resulting can not be thought of as a city, because they were not planned as such, nor they are derived of the evolution and development of any former historical urban spaces. On the contrary, they present some features -its fragmentation, the gated design, its isolation within the house and within the gated urban estate- that can be qualified as "de-urbanizing".

[13] Basically, scarce local resources are water and land, although there are other related to more global environmental aspects (energy consumption, waste generation, athmospheric issues derived from waste incineration, etc.) (Andreu *et al*., 2003: 70-72).

IV.3. De-concentration of economic activities in metropolitan areas

A spreading urban developmental process has reached Spanish large cities perhaps delayed in relation to other (Anglo-Saxon or Center of Europe) urban models; it is an urban developmental process characterised by density gradients and activity concentration depending on economic situation, city size and dynamics or control exercised on land by urban and land planning (Roca Cladera, 2003). It is to be pointed out that infrastructures play an important role over spreading urban developmental processes, and they while making possible diffusion, also promote centrality (Nel.lo & Muñoz, 2004:279). In Spain there are many powerful and different tendencies towards sub-urban spread which can not be described all in this text, therefore, we are going to refer in concrete to metropolitan areas (Caravaca & Méndez, 2003:42-49). In any case, it is to be pointed out that metropolitan peripheries are managed from a too tolerant view in comparison to the larger rigour used in consolidated areas. We have to keep in mind as well that said dynamics go beyond administrative limits as most of them are just the spatial projection of the decisions and investment flows operating at a world-wide scale. Lastly, these processes over which different (state, autonomous and local) and un-coordinated[14] public administrations have competence do not easily submit to strict rational processes.

The new peripheries are overcoming, even in the compact urban developmental model in which Spanish cities are usually included, the classical suburbia stage (of such a high density in our case) marked by the residential function (Muñoz, 2003). In general other productive activities are moving toward peripheries which get a functional diversity, and give place to the '*post-suburbia*' stage described by Borsdorf (2004). A first effect of economic activity de-concentration towards peripheries is a more balanced population-employment relationship, although employment market is still monopolized by the metropolis' central places. Up till now, researches are more concerned by the demographic and spatial effects of residential de-concentration (Santos Preciado, 2001;

[14] See for instance the Metropolitan Region of Barcelona, defined in 1987 on an area of 3,235 km2, made up by 163 municipalities and with a population of 4.5 millions. Its central core is made up by the Metropolitan Area of Barcelona (42 municipalities), located on the counties of Barcelonés (its totality) and part of Baix Llobregat, Maresme and Vallés. The second metropolitan ring is made up by middle-sized towns such as Vilafranca del Penedés, Terrassa, Sabadell or Mataró. In the last years, it appears that in both scopes "there is a less precise delimitation and that influences goes beyond traditionally established limits" (**Pacte Industrial de la Regió Metropolitana de Barcelona,** http://pacteind.org)

Pujadas, 2007), while the economic and work aspects resulting are on a second place (Angelet, 2000; Salom & Casado, 2007; Valenzuela *et al.* 2007).

The promotors of technological parks had already opted for the sub-urban or peri-urban location since mid-'80s (Ondátegui, 1997, 2001, 2006) both in Catalonia (Cerdanyola del Vallés), Basque Country (Zamudio, Vicaya), Valencia (Paterna), Málaga (Campanillas) or Madrid (Tres Cantos). The preference for a peripheral location has continued in any later scientific-technological parks except in a few cases (Parc Cientific of the Universidad Politécnica de Barcelona); all the scientific-technological parks existing in the Community of Madrid are located in the metropolitan ring (Alcalá de Henares, Leganés, Móstoles and Getafe) and the future Ciudad del Conocimiento (City of Knowledge) is to be install in the municipality of Colmenar Viejo. In all these decisions the concerned public administrations played an important role, therefore de-concentration processes have not been spontaneous nor led just by private economic agents. In the Community of Madrid, since the '90s, regional and local authorities were agreed on the need to put into practice some policies that made their economy more dynamic and attractive versus external investors: transport infrastructures, land for innovating activities, re-qualification of peripheries or dynamisation of secondary centres of the regional urban network (multiple polarization). Accessibility has been improved by the State who has enlarged the airport of Barajas (new runaways and T4 terminal) and toll radial highways, and by the autonomous government (enlargement of metropolitan underground train and the M45 highway); while the regional administration directed land policies related to economic activities with the help of some specialised departments (ARPEGIO).

Obviously, all these policies gave a new interest to industrial employment de-concentration, both for activities that were already re-qualifying their old centrally-located premises and for recently-installed activities. In the metropolitan region of Madrid the preferred destinations are the municipalities in the South-Southwestern arch ('Gran Sur') and the North-East ('corredor del Henares') both of the metropolitan ring and of the most external zones of the Community that may even go beyond the border with the provinces of Toledo and Guadalajara ('*border effect*') (Celada, 1998, López de Lucio, 1999). Tertiary activities (offices, shopping centers and leisure zones, logistical platforms, universities, etc.) show some more diversified preferences in relation to

location factors. The spread model exercises a large pressure on local urban developmental planning when looking for better competitive advantages (Méndez 2007:177). Therefore, town councils like to make possible for some new activity enterprises to install on their land and make changes in planning or access to urban developed land, specially when those activities are guaranteed by a hypothetical innovating aureole and bring employment to the place with the corresponding induced effects on real-estate, market and services sectors; the Bank of Santander's 'banking city' in Boadilla del Monte (Madrid) or Telefónica's similar C District in the Tablas PAU are clear instances of one or another support recently given to de-concentration in Madrid. The visible result of the different de-concentration processes is the appearance of new morphological pieces with very complex functional and landscape typification (gated or not residential urban estates, business parks, shopping and leisure centres, logistical platforms, etc.) (Arias Sierra, 2003: Valenzuela, 2007).

IV.4. New residential models in the concentrated city/spread city dichotomy framework

The century turning point has shaken the Spanish residential sector, and it has suffered in every economic, social and spatial dimension. Its multiple causes can not be synthesised in this paper, but we can point out that it took place in a context of strong economic dynamism (far above the EU average) and that it had a strong impact on demand, accelerated by an unforeseen re-launching of external immigration to cities and by the Euro introduction and the urban developmental de-regulation derived from the Land and Valuations Act of 1998, and that urban planning competences belong to autonomous governments. During the decade of 1997-2007 there has been a continuous increase of housing prices, in parallel to a sharp construction increase, which has founded the much-debated hypothesis that Spain was immersed in a new "real-estate soap bubble"[15]. Forecasts for next years are much less optimistic for the residential real-estate segment, around which the Spanish economic dynamism has turned in the last years.

[15] According to the Housing Ministry, the average housing price in Spain had risen 173.2 % in the term of 1997-2006 (Ministerio de Vivienda, 2007: 183) while the registered housing for the same period had multiplied per 2.5 and had reached in 2006 the 'record'of 863,000 units (Rodríguez, 2007a).

The real-estate fever of the 1997-2007 decade brought deep changes in the physical organisation of residential areas, in parallel to a large residential spread on edges or outside the built continuous of cities, but also inside the consolidated city. In this sense, we have to point out the valuation of metropolitan peripheries and the wide diffusion of residential single-family home (basically "semi-detached house") promotions, a model that has appeared in Spain recently (years 1980). This so much desired model has brought morphological and sociological diversity to districts and satellite-cities with a strong working personality, inherited from former times, but also to originally-high class residential zones. Likewise intense is the diffusion on the last two decades of gated residential estates of apartment housing erected around resident-exclusive-use free and sport areas. Its diffusion on Spanish cities, as pointed out by Carme Bellet, shows that, in spite of the analysis in USA, Latin America or Southern Africa, they are not real-estate products for wealthy people and that, at least in Spain, they are devoted to diverse social groups who are mesocratic in relation to neo-liberal practices (Canosa, 2002; Bellet, 2007:3-4). On the contrary, the rationalist-inspired open construction has taken a second place after the '60s and '70s in all Spain.

Inside the consolidated city, real-estate fever had resulted in a deep physical renewal and a social change in old working class quarters that had won centrality with time (the case of the Tetuán district in Madrid) or in old industrial or railway areas replaced by residential estates socially much valued such as *Villa Olímpica* in Barcelona or *Pasillo Verde* in Madrid. These and other smaller inner city renewing operations, activated *'ad infinitum'* through urban developmental agreements, have unchained in central places an intense 'gentrification' process from which middle and high-class professionals have profited even though they have never left urban centres completely in Spain (Leal, 2002:68). The edge of the built continuous has been a privileged space for residential expansion in the Spanish cities of late 20th century; there were located the so-called 'new developments', large 'packages' of residential land developed mostly by private promoters, at times through public means ('urban development consortiums') and rarely through coops. Most significant for their size and residential offers are the P.A.U.s (**Programas de Actuación Urbanística**/Urban Development Action Programmes) of Madrid; their total amount of 74,537 housing units has taken the built continuous of Madrid almost to municipal borders. The slowness of their management, started in the '90s and yet unfinished, and their consequent price rises have turned them

in clear examples of city generation left in the hands of real-estate interests in times of high demand (Mas & Rodríguez Chumillas, 2003:194). An updated reproduction of the PAUs but with a larger presence of coops has started the so-called 'South-East strategy'; this promotion finishes off the urbanizable land on the South-East side of the Municipality of Madrid [16] (Brandis & Del Río, 2007).

Out of the built continuous, the budding residential de-concentration of past decades has strengthened and made general not only in the metropolitan regions of Madrid (López de Lucio, 1999) and Barcelona (Pujadas, 2005) but also in second-level metropolitan areas and even in dynamic middle-sized towns outside any metropolitan areas. In short, the progressive urban development of land has increased with the corresponding rise of commuting and its derived problems (Mallarach Isern & Vilagrasa, 2002). Whether this urban spread is deriving into a strong expansion of a discontinuous urban development, that results in a budding metropolitan-pattern of multiple nuclei or that stresses the existing one, is an issue to be still analyzed in detail. As shown by Isabel Pujadas (2005) in relation to the Metropolitan Region of Barcelona, it can not be undoubted that the acceleration of residential diffusion processes outside the central places of the agglomerations is associated to the ejection of its dwellers towards the peripheries, of segments of exogenous (immigrants) and endogenous (middle-low class, young people, etc.) population. The same phenomenon explains the outstanding residential offer of Madrid's neighbouring Castilian provinces (Toledo, Guadalajara, Ávila and Segovia); the instance of the new households of Madrid's Southern metropolitan towns that have to set their place of residence in Toledo's county of La Sagra (Rodríguez, 2007b:85). Apart from any conventional real-estate operations, urban development diffusion processes extend in a hazy manner into a category of hybrid and not-easily defined peri-urban spaces, which still maintain some rural features and are, therefore, the setting for living styles and occupations ranging from rural to urban. This socio-economic and spatial category is widely existing in regions of the North of Spain (Galicia especially) and in Mediterranean fertile valleys and irrigated plains (Murcia's Huerta, for instance) as well as in the most urban developed zones of Andalusian hinterland with Granada's peri-urban ring as a good representation (Entrena, 2006:180-183).

[16] 110,000 housing units (50% state-funded) were included in the partial plans passed in 2003 for its five districts;works are unlikely to start before 2008.

IV.5. Mobility and new town patterns

The increased mobility generated by the urban developmental model described above has interested Spanish geographers. Analysis have focused, on one side, on measuring and describing the trips generated by the new town patterns and, on the other, on using mobility data to define and describe the new territorial reality. The existence of some specific sources: Metropolitan Surveys on Mobility and Population Surveys, has made easier to study these aspects within a time range.

In the first of the above subjects, research has verified, on one side, that metropolitan expansion and urban spread have implied a boom of mobility for particulars and companies and have decreased municipalities' capacity to self-retention (that is, the capacity to retain mobility within their borders), increasing both the number of trips and trip length in km and time, and making more complex the model by destination diversity and by a rise of trip irregularity in time (Nel.lo, 2002: 112; López, 2003:11; Gutiérrez Puebla & García Palacios, 2005: 338).

On the other hand, it is clear that travel means have sharply turned towards private car, while public transportation or travelling on foot have decreased. Nel.lo (2002: 112) points out that, in relation to the Metropolitan Area of Barcelona, this process is the result of a public and private investment policy that has given priority to investments on roads and not in public transportation, but it also results from recent land occupation with a prevalence of dispersed residential models. Gutiérrez Puebla and García Palacios (2005: 344) have shown that, in the Metropolitan Area of Madrid, large and fragmented peripheries have increasing transport needs with features different from those of a traditional town or of any Fordist peripheries. On data from the Metropolitan Surveys on Mobility of 1988 and 1996 they point out that while periphery-centre trips are served in a relatively efficient way by public transportation, periphery-periphery trips within a context of different destinations and an growing population spread, are basically made in a private vehicle because of its larger flexibility.

Other studies start from the premise that new urban realities can not be identified with conventional criteria and, therefore, they make use of daily mobility data to define and analyse the new land structures so shaped. Their starting point is the concept of "actual city", understood as the social and functional unit of residence, work and consumption

(Boix & Castañer, 2003: 389). Their methodologies range from analysing main flows as indicators of centrality (Juaristi, 2003: 78-79; Díaz *et al.*, 2002: 320-322) to more complex techniques such as the delimitation of local labour markets (Salom *et al.*, 1997; Fernández & Feria, 2005; Salom & Casado, 2007), to the delimitation of "cohesion areas" based on bi-univocal flows between municipalities (Castañer *et al.*, 2000; Boix & Castañer, 2003). Their main results show that the general mobility increase translates into urban structures that become progressively larger on land and more complex in function (Boix & Castañer, 2003; Salom & Casado, 2007), although it is also possible to identify different models and settlement structures, from the most conventional ones (centralized structures) to those of a grid character (Feria, 2000: 6).

IV.6. Integrating free spaces in urban developmental processes

In the framework of the extensive and dispersed urban developmental process that is taking place at present in Spain, land is used/consumed in an accelerated manner and it is difficult to preserve free interstitial spaces. However, the preservation of those open spaces is one of the most important policies to be developed at a metropolitan scale, because those free spaces have a compensatory function in relation to urban activities, have a relevant landscape/scenery patrimonial value, have relational functions between natural spaces of interest and allow the performance of highly productive agrarian activities (Nel.lo, 2000, p. 238)

The existing regulation framework and, specifically, its flexibility in relation to the use of the land qualified as non developable, plus the lack of supra-municipal coordination have hindered preserving and planning the free spaces located outside the city, where they are subject to local planning. Thus, one of the few planning instruments that can stop urban developmental expansion are the different protection figures for natural or rural spaces (Alberdi Collantes, 2003: 74).

Although the first figures for environmental protection appeared in early 20th century, while Act 15/1975, on Protected Natural Spaces, is an important milestone, it is since mid-'80s, in the context of the environmental competence power transfer to Autonomous Governments and their intense law-making activity, when environment protection experienced an important quantitative and qualitative jump (Florido Trujillo & Lozano Valencia, 2005:62 ff.). A second driving factor is the European policy on

environmental protection and, in concrete, the EEC/92/43 Directive of the European Council dated May 21st, 1992 on conservation of natural habitats and of wild fauna and flora, a directive that is translated into Spanish law by Order 1997/1995 dated December 7th, 1995 (Mulero, 2004:169).

Since its inital approach, natural space protection has evolved towards an increasing integration in land planning policies, while its role in urban space planning has grown as well. This evolution has followed three main directions: peri-urban spaces have leisure and service functions, beyond that of environmental protection, for metropolitan dwellers; the creation of free green corridors or spaces helps to ecological maintenance and acts as an articulating element, and the need to integrate in the environment to contribute to territorial development, while taking into account the local population in the declaration, management and planning processes of natural spaces (Garayo, 2000: 144; Ojeda, 2000: 283; Troitiño, 2005: 230).

Conservation policies had clashed very often with social or tourist demands because of the high urban developmental pressure of Mediterranean areas. Natural spaces protected from urban development usually have a large number of, sometimes mass, tourist or leisure uses, and they hardly have any managing mechanisms (Font-Majoral, 2000: 131; Blázquez & Salom, 2000: 57). Therefore, new protection figures have been created which are not based exclusively in the assessment as natural patrimony to be preserved, but they accept tourist and leisure demands to meet them properly with no risk for natural environments: Recreation Areas are included in the Natural Spaces Act of Castilla y León[17] (Cascos-Guerra, 2000: 99), Rural Parklands in the Basque Country[18] (Alberdi Collantes, 2003: 80), or Peri-urban Parks are included in Andalusia and Extremadura[19] (Mulero, 2000: 260; Florido Trujillo & Lozano Valencia, 2005: 65-66); etc.

[17] Natural environment areas with an easy access from urban centres that are resting places for the population.

[18] They adapt municipal planning to the provisions of the Special Plan and protect rural zones with a double purpose: as a recreational area for population and as a land reserve for agrarian-cattle-raising exploitations against urban development.

[19] They are spaces relatively close to urban centers; their use is basically recreational (although they also have educational uses). They are designed to have an intensive use by the population and are endowed with the appropriate infrastructures. They help to relieve and preserve other more relevant areas with a more limited capacity.

Most of these figures have included another of the main changes in the treatment of protected natural spaces: instead of approaching it as an isolated area, it is integrated in a "natural spaces system", or a system of green spaces, structured in networks connected by ecological corridors (Castell, 2006: 466) that can be turned into a land planning instrument. Within this framework, the declaration of protected areas can be more than just a defensive strategy, a retention wall against the building of sport infrastructures or of urban estates, to become a land function assigning mechanism from an environmental point of view, integrated thus within land planning processes (Simancas, 2007: 294)

The difficulties to develop this systemic approach in the areas supporting the largest urban developmental pressure have proposed using planning to maintain a "system of free spaces" linking the classical urban free spaces in the metropolis (street, avenue, square, town park) to other free spaces located in metropolitan interstices due to suburbanization processes (leisure centres, shopping centres, airports, university campuses, business centres, sports premises, etc.) and to metropolitan "nobody's land" by the creation of green connections or "park-streets". This system of free spaces is to be the basic articulating and integrating element for metropolitan space, and it is to have a specific equipment function (Font-Majoral, 2000: 134, Batlle, 2006: 104-105). Some initiatives based on this approach are the network of free spaces appearing in the Land Planning of Andalusian urban agglomerations (Mulero, 1994: 180) or the system of metropolitan parks of some municipalities of the Metropolitan Area of Barcelona (Nel.lo, 2002: 238; Batlle, 2006: 107 y ss.)

V. CONCLUSIONS

At the turning point of the 20th century into the 21st century, marked by an economic revival, Spanish cities and metropolis have experienced important alterations in their spatial dynamics. These are some of the them.

First of all, metropolitan areas' central cities have experienced a revival that has inverted their demographic decay and has given them back their economical role. This change is related, in part, to the arrival of immigrants, basically non-Europeans, that concentrate mainly in the inner core of the largest metropolitan areas, promoting the re-centralisation of metropolitan growth. On the other side, some economic factors have

helped to reinforce the economical potential of main metropolis, Madrid and Barcelona basically, through a re-qualification of economic activity, the development of the higher tertiary sector, a concentration of new information and communication technologies, and the arrival of direct foreign investments.

This tendency to metropolitan re-centralisation is in parallel to the increase of urban spread over land and the consequent extension of the "dispersed city" model. This process is affected both by technological innovations, in concrete the incorporation or improvement of communication infrastructures resulting in a mobility increase, and by social changes linked to alterations of consumption patterns, of family structures and behaviours and in preferences and attitudes towards housing and mobility which have promoted residential de-centralization towards peripheries progressively farther from the urban center. Within this context, there appear new models that imply deep changes in the physical organisation of residential areas (promotion of detached single-family housing units), and which bring them a large morphological and sociological diversity. However, de-concentration processes affect also economic activities, mainly industrial activity that is moving towards peripheral spaces, a process that may be backed by local and regional supporting activities-relocating policies.

A specific form of the "dispersed city" is the tourist residential urban development, linked basically to the Mediterranean coast and islands, where it has given place to the creation of a coastal conurbation made up by a series of fragmented urbanised spaces, lacking of a true urban articulation. Tourist residential urban development presents at present new forms linked to its occasional integration in metropolitan dynamics and to the creation of new tourist products such as golf links.

The above had taken place within a regulating context that was not able to control and channel any spontaneous processes, due to the fragmentation of the regional and local institutional chart, the limitations of supra-municipal planning and coordination instruments and from urban de-regulation that gave a larger role to private agents. Therefore, in spite of the concern for city sustainability and, particularly, for negative effects of urban developmental expansion over environment dating back to the '80s, which are increasing in the last years thanks to the initiatives of different public administrations and social agents, land occupation has kept accelerating both in

metropolitant peripheries and in coastal tourist areas, caused by demands from urban functions and by real-estate business strategies. Another important negative effect from the point of view of environmental sustainability is the boom of its citizens and companies' mobility needs which translate into an increased number of trips and in their distance and time length, and in a more complex territorial pattern, with the corresponding increase of private car trips.

In this context, one of the few planning instruments that can stop the expansion of urban development is the different formula for natural or rural spaces protection, which have evolved integrating increasingly in land planning policies through three different ways: peri-urban spaces have leisure and service functions, beyond that of environmental protection, for metropolitan dwellers; the creation of free green corridors or spaces helps to ecological maintenance and acts as an articulating element, and the need to integrate in the environment to contribute to territorial development, while taking into account the local population in this process.

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