

Population deconcentration in Italy, Spain and Greece: A first comparison

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In Olinda, if you go out with a magnifying glass and hunt carefully, you may find somewhere a point no bigger than the head of a pin which, if you look at it slightly enlarged, reveals within itself the roofs, the antennae, the skylights, the gardens, the pools, the streamers across the streets, the kiosks in the squares, the horse-racing track. That point does not remain there: a year later you will find it the size of half a lemon, then as large as a mushroom, then a soup plate. And then it becomes a full-size city, enclosed within the earlier city: a new city that forces its way ahead in the early city and presses it toward the outside.

Olinda is certainly not the only city that grows in concentric rings, like tree trunks which each year add one more ring. But in other cities there remains, in the centre, the old narrow girdle of the walls from which the withered spires rise, the towers, the tiled roofs, the domes, while the new quarters sprawl around them like a loosened belt.

Italo Calvino, *Invisible Cities*

Introduction

According to U.N. estimates, at the end of the 20th century half of the world's population was to be found in urban areas. Hidden behind this broad level data are complex national and regional situations. In effect, the process of urban concentra-

tion does not affect all countries in the same way. Indeed in certain developed countries with free market economies, the processes of urban deconcentration of population and economic activities are under way. These processes are the inverse of the tendency towards urban concentration.

The international division of labor, processes of increasing spatial differentiation of work and residential locations, processes of de-urbanization and de-industrialization, and the wide expansion of the service sector have established a new spatial order. This has as a consequence a new spatial organization of the European urban structure. As has already been documented, in the last three decades counterurbanization has become a dominant force shaping the settlement patterns in a number of countries on both sides of the Atlantic (BERRY, 1976; ILLERIS, 1979; FIELDING, 1982 and 1989; VINING, 1982; CERESA et al., 1984). This process is characterized by decreasing urban size, falling population densities, and decreasing heterogeneity of urban forms and activity distribution within urban regions.

The processes of counterurbanization have mainly affected the "mature" urban systems of North America and Western Europe (VAN DEN BERG et al., 1981; CHAMPION, 1989). In a certain number of studies of urbanization in southern Europe the process was oversimplified (CHESHIRE, 1995) or the urban structure was automatically classified at the earliest stage of urban maturity (KUNZMANN and WEGENER, 1991). Muscarà (1978) and Leontidou (1990) made important contributions to the study of structuration and metropolitan deconcentration in Southern Europe at the international scale. There are a number of studies that took into account the complexity of southern European urbanization but they limited their investigations to the national level without extending the comparisons to the neighboring urban systems (BOTTAI and COSTA, 1981; DEMATTEIS and PETSIMERIS, 1989; DEMATTEIS, 1992; CORI, 1984; PETSIMERIS, 1986; SCARAMELLINI, 1991; MARTINOTTI, 1993; TSOULOUVIS, 1998) or they analyzed the phenomenon of deconcentration at the scale of a macro-region (MAINARDI, 1968; CORO et al., 1987; LEONE, 1988). Other contributions were focused at the metropolitan level: Gambi (1973) for the main Italian cities, Dalmasso (1978) for Milan, Seronde-Babonaux (1983) for Rome, Petsimeris (1998) for the cities of the Italian industrial triangle (Turin, Milan and Genoa), Castells (1981) for Madrid, and Leontidou (1990) and Tsoulouvis (1998) for the main Greek cities.

Our main hypothesis is that southern European urban systems are highly heterogeneous, and the processes of urban diffusion are for this reason very different in the various regions.

The aim of this study is to carry out a first comparative anal-



Fig. 1: Spain, Italy and Greece in Southern Europe.

ysis of the urbanization processes in Italy, Spain and Greece. It is relevant to try to answer the following questions (fig. 1):

- Are the processes of counterurbanization affecting the three countries?
- What is the temporality and the spatiality of the urbanization processes?

Definitions of urbanization and counterurbanization

The models for the analysis of deconcentration of population and counterurbanization or de-urbanization have their origins in the methodological work of Louis Wirth (1938) and Hope Tisdale (1942). Both these works attempted to make more operational the complex and rather obscure Weberian definition of the city.

- According to **Max Weber**: "The many definitions of the city have only one element in common: namely that the city con-

sists simply of a collection of one or more separate dwellings but is a relatively closed settlement. Customarily, though not exclusively, in cities the houses are built closely to each other, often, today, wall to wall. This massing of the elements interpenetrates the everyday concept of the 'city' which is thought of quantitatively as a large locality. In itself this is not imprecise for the city often represents a local and dense settlement of dwellings forming a colony so extensive that personal acquaintance of inhabitants is lacking" (WEBER, 1958).

- **Louis Wirth** instead of defining the city gave a definition of "urbanism as a way of life" which is more powerful and more comprehensive: "there are a number of sociological propositions concerning the relationship between (a) number of population, (b) density of settlement, (c) heterogeneity of inhabitants and group life, which can be formulated on the basis of observation and research (...). Increasing the number of inhabitants in a settlement beyond a certain limit will affect the relationship between them and the character of the city (...). On the basis of three variables – number, density of settlement and heterogeneity – of the urban population, it appears possi-

ble to explain the characteristics of urban life and to account for the differences between cities of various sizes and types" (WIRTH, 1938).

● **Hope Tisdale's** view is simpler because she retains the population as the basic variable for the study of the processes of urbanization. This process represents a sort of common denominator of the evolution of human history: "Urbanization is a process of population concentration. It proceeds in two ways: the multiplication of the points of concentration and the increase in size of individual concentrations. It may occasionally or in some areas stop or actually recede, but the tendency is inherent in society for it to proceed until it is inhibited by adverse conditions (...). Urbanization is a process of becoming. It implies a movement, not necessarily direct or steady or continuous from a state of non-urbanism toward a state of complete urbanism, or rather from a state of less concentration toward a state of more concentration" (TISDALE, 1942).

Despite the criticisms that one can make to her definition it is important to underline a number of significant innovations. She is among the first to use the term urbanization and to define it as a process. She makes the distinction between city and urbanization. In her conception there are implicitly two scales of analysis: the macro-level (urbanization as proliferation of the number of cities) and the micro-level (urbanization as extension of a city in space and time).

After these definitions a number of other definitions have been produced in order to describe the change of the urbanization processes during the 1970s in the developed countries. The most important are those of Berry (1976), Fielding (1982) and van den Berg et al. (1982). All these definitions use the same variables as Wirth and Tisdale and invert the original terms from urbanization to counterurbanization and from urbanization to de-urbanization:

● According to **Berry** (1976), "The process of counterurbanization therefore has as its essence decreasing size, decreasing density and decreasing heterogeneity. To mimic Tisdale: counterurbanization is a process of population deconcentration; it implies a movement from a state of more concentration to a state of less concentration."

● **Fielding** (1982) gives a more operational definition of counterurbanization. According to this author, counterurbanization is the inverse negative correlation between the size and the net migration of the settlements of one region or of one nation. In other words the larger the city, the larger the urban decline due to negative net migration.

Both the above-mentioned definitions of counterurbanization concern the urban system of a nation or a region.

● At the metropolitan level, **van den Berg et al.** (1982) proposed the city cycle model in order to analyze the evolution of a single functional urban region in time. The urban area is called the Functional Urban Region (FUR) and is composed of a core (city center) and a periphery (ring) defined according to a threshold of commuting between the core and the ring. According to this model there are four main stages in the life of a city: urbanization, suburbanization, de-urbanization and re-urbanization.

● **Urbanization** is characterized by a rapid expansion of urban zones. This is the phase of industrial urbanization. During this phase the main population concentration processes take place in the core. The origin of this population is the hinterland, the rest of the region or other regions.

● **Sub-urbanization** is characterized by a strong process of deconcentration of both population and economic activities from the center towards the hinterland that puts into effect a process of urban diffusion; in parallel we can witness an increase in interactions between the urban zones in terms of mobility, migrations and innovations.

● **De-urbanization** is characterized by a decrease in population and employment, which affects the whole agglomeration (FUR). During this phase, the little centers of peri-urban space register an increase in economic activities and population.

● **Re-urbanization** is characterized by the regeneration of the center. In this phase, we witness a return to growth in the core, due to rehabilitation or renewal of the historic centers.

On the bases of the above definitions we will measure the processes of deconcentration in Italy, Spain and Greece.

The area and the data

For the study of urbanization and counterurbanization processes according to Tisdale's and Fielding's definitions we used the official census data for Spain, Italy and Greece at the level of

– the basic administrative units for Italy and Spain (i.e. *Comuni* and *Municipios*), and

– the main cities (*demoi*) for Greece.

The data for the 2001 census are not yet available for Greece and Italy. For this reason the analyses of the Greek urban agglomerations are made between 1951 and 1991. For Italy we used census data until 1991 and data from the Public Records Office (*Anagrafe*) concerning the resident population on 31 December, 1999.

For the analysis of the city life cycle we considered the main agglomerations in the three countries.

● For Italy we analyzed the five main metropolitan areas (Rome, Milan, Turin, Genoa and Naples).

● For Spain we analyzed the Spanish urban agglomerations according to the local definitions for planning purposes from data produced by Oriol Nello (2000). These agglomerations are Madrid, Barcelona, Bilbao, Malaga, Seville and Valencia.

● The data for Greece concern the main urban agglomerations (*poleodomika sygkrotimata*) of Athens, Thessaloniki, Patras and Heracleion.

The settlement structures

● During the period 1951-1999 **Italy** passed from a population of 47.5 million to 56.7 million inhabitants. In 1951 there were 24 cities with more than 100,000 inhabitants, 15 of which were located in the North, 3 in the Center and 6 in the South. During the same period the settlements with a population superior to 100,000 represented 20 percent of the total Italian population. In 1991 the number of cities doubled (46) and represented 26 percent of the Italian population. In terms of distribution 50 percent of the cities were located in the North 17 percent in the Center and 33 percent in the South. But the changes also concern the other segments of the urban hierarchy and the suburban and peri-urban areas of the country. These changes were not isolated, continuous or forecastable in an easy and linear historical process. During the second half of the 20th century Italy experienced significant growth and became one of the most important industrialized nations.

● During the period 1951-2001 **Spain** passed from 30.8 million to 39.6 million inhabitants, and the seven most important metropolitan areas from 7.5 million to 13.3 million (NELLO, 2000). The population of Spain was 18.6 million in 1900, 28.1 million in 1950 and 39.4 million in 1991. During this period the number of large cities (the cities with more than 500,000 inhabitants) grew from 2 in 1900 to 3 in 1950 and 6 in 1991, and their share in the national population was 5.8 percent, 12.1 percent and 18.8 percent respectively. The cities with a population between 100,000 and 200,000 inhabitants grew from 4 to 21 to 50, and their share from 3.2 percent to 11.9 percent to 24.12 percent. The share of all the Spanish cities superior to 10,000

inhabitants was 32.2 percent in 1900, 52 percent in 1951 and 75 percent in 1991.

- In **Greece** in 1951 only three cities had a population superior to 100,000 (Athens, Piraeus and Thessaloniki). Two of these three cities belong to the Athenian urban agglomeration. In 1971 two more cities passed the threshold of 100,000: Peristeri that belongs to the urban agglomeration of Athens and a regional city (Patras). Finally, in 1991 there were nine cities with a population superior to 100,000 inhabitants if we include the Volos conurbation. Four cities belong to the agglomeration of Athens (Athens, Piraeus, Peristeri and Kallithea) and four are regional cities (Patras, Heracleion, Volos and Larissa). The Greek urban system is characterized by a primacy structure (JEFFERSON, 1939). The urban agglomeration of Athens amounts to 3.1 million inhabitants while the second agglomeration, Thessaloniki, amounts to 750,000 inhabitants. The third agglomeration of the country, Patras, even if it doubled its population between 1951 and 1991 amounts to 153,000 inhabitants. This means that the settlement system of Greece is hugely lacking in cities with a population between 200,000 and 1 million.

As we can see in the three countries there are important processes of urbanization in terms of the multiplication of the number of cities and in terms of the growth of the population of the existing cities. We can also see an important relationship between level of development and maturity of the urbanization processes.

Urban dynamics by city-size

Let us examine the correlation between city size and growth limiting ourselves to the cases of Italy and Spain. For Greece data were only available for the urban agglomerations, so we are not able in this paper to produce diagrams for Greece similar to those for Italy and Spain.

For Italy we will examine this correlation at the national level and at the level of South Italy, a macro-region whose processes of urbanization were "dependent" and whose urban structure was less mature than that of Italy's industrial triangle. For Spain we will study the correlations at the "national" level and for the region of Catalonia, an area characterized by mature urbanization and industrialization (figs. 2, 3, 4 and 5).

- Figure 2 indicates the relationship between size of settlement and population growth for **Italy** between 1951 and 1999. During the 1950s, the six groups of settlements with a population inferior to 25,000 inhabitants recorded a decline. The group of cities that recorded the highest population growth were the cities between 250,000 and 500,000 (23.9 percent). The same group also recorded the highest growth in the 1960s (20.5 percent). During the first two decades only the settlements inferior to 5,000 lost population, while all of the other groups of settlements increased their population. The groups of 5,000-10,000 grew by 6.5 percent and the other groups between 10,000 and 250,000 recorded increases that varied between 13 percent and 16 percent. In the 1980s the decline of the cities superior to 500,000 became more dramatic (-10.8 percent). We also observed the decline of the group 50,000-100,000 (-2.1 percent) and the decline of the most dynamic group of the previous decades (250,000-500,000) which lost -3.8 percent, while the cities between 100,000-250,000 were in stagnation (+0.3 percent). During this period the settlements inferior to 2,000 continued to lose population. Finally, during the 1990s the biggest settlements continued their decline, the medium large cities were declining or stagnating and only the settlements between 1,000-50,000 recorded an increase.

If this is the general situation in Italy the different macro-

regions present a less uniform image. Figure 3 shows the relationship between population growth and settlement size in South Italy. From this figure one can see that during the 1950s there was a positive correlation between population growth and settlement size. The cities were growing proportionally according to their size. The settlements with a population inferior to 5,000 were in decline throughout the analyzed period, with a tendency to reduce the intensity of their decline during the last two decades. During the 1960s the decline also concerned the next size (5,000-10,000). This is the period of massive exodus of population originating from the southern regions that migrated mainly to the industrial cities of the North of Italy. Even if the growth of the largest cities of the South slowed down during the 1960s the decline appeared in the 1980s which is at least one decade after the North Italian metropolises. The decline in the South affected the cities between 100,000 and 500,000 inhabitants (-5 percent) and the cities with more than 500,000 (-7.7 percent). The next decade the decline persisted but it was less intense. The two groups of cities recorded losses of -2.6 percent and -4.5 percent respectively.

- In **Spain**, as we can see in figure 4, there was also a tendency of metropolitan concentration from the 1950s to the 1970s. The large cities experienced a phase of decline in the 1980s while the medium-sized cities grew and the smaller settlements continued their decline. The growth of the cities with a population between 25,000 and 500,000 was continuous over the first three decades and slowed down after the 1980s. In the 1990s we can see that we are far from the correlation of the 1970s: the large cities continued in their decline but this tendency slowed down. Similar trends were found for the small settlements, and the medium cities recorded a weak increase. This clean break is also due to the high concentration of Spanish industry in terms of job location. Until 1975, 22 percent of the manufacturing employment was concentrated in Barcelona, 12.5 percent in Madrid, 7 percent in Valencia and 5 percent in Viscaya (MENDEZ and CARAVANCA, 1997) and there was a positive correlation between manufacturing job concentration and the attraction of migration flows from the industrial poles. During the 1980s there was a crisis in the manufacturing sector and a sunbelt phenomenon affected the regions of the South. Madrid declined in terms of net migration but also in terms of interprovincial migration (CABRE et al., 1985; GARCIA COLL and STILLWELL, 2000).

In figure 5 we can see the correlations between city size and growth for the region of Catalonia. This region represents one of the most dynamic regions in terms of industrialization and urbanization, and played a similar role to that of the industrial cities of Northern Italy within the Spanish settlement system. In fact, the curves representing Catalonia's urban growth by city size are more mature in comparison with the ones we observed at the "national level." During the last half century (1950-2001) Barcelona increased by 17.6 percent rising from 1.3 million to 1.5 million inhabitants. However, this growth was neither continuous nor evenly distributed over the five decades. During the first two decades there was an increase of 37 percent that mainly occurred during the 1950s (21.7 percent) and the 1960s (12 percent) and a stagnation during the 1970s (0.6 percent). After this period the municipality of Barcelona entered a phase of demographic decline losing 111,000 inhabitants in the 1980s and another 138,000 in the 1990s. At the regional level the population grew from 3 million to 5.9 million between 1951 and 1981, and to 6.4 million in 2001. This means that there was a redistribution of the population within the region: the decline of Barcelona was in part compensated for by the processes of suburbanization towards the second and the third rings of the metropolitan area. However, it is evident that the powerful attraction that the Catalan capital

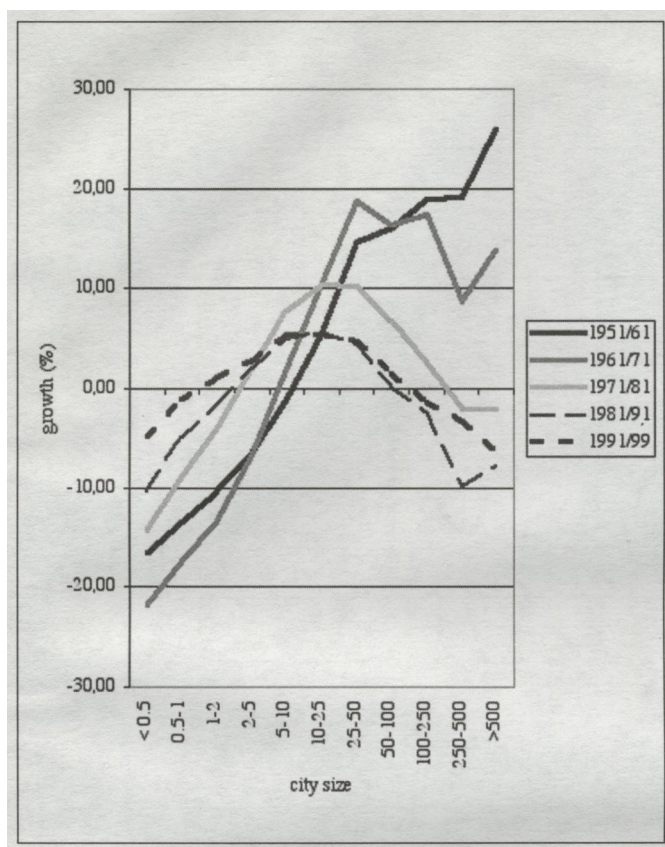


Fig. 2: Correlation between growth and city size in Italy, 1951-1999.

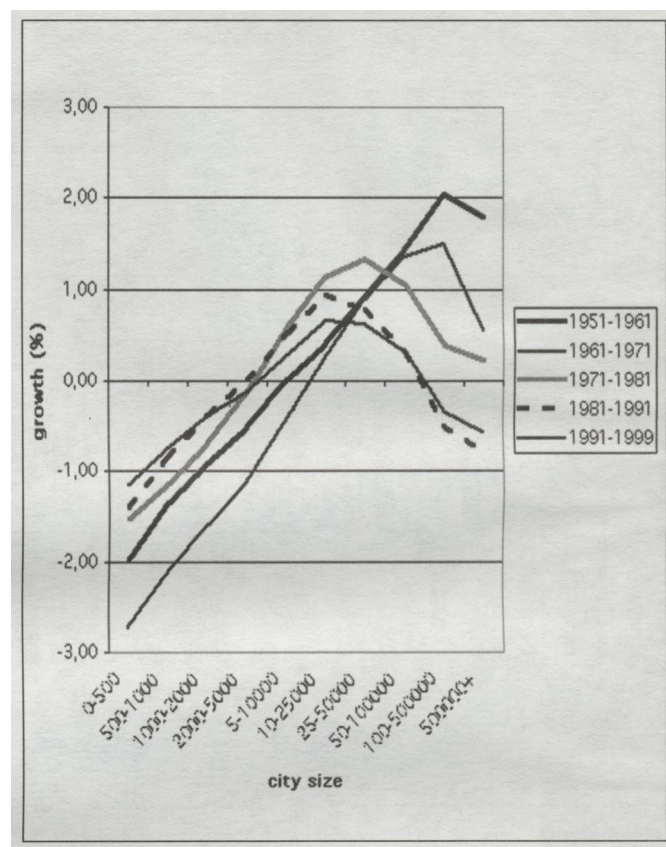


Fig. 3: Correlation between growth and city size in Southern Italy, 1951-1999.

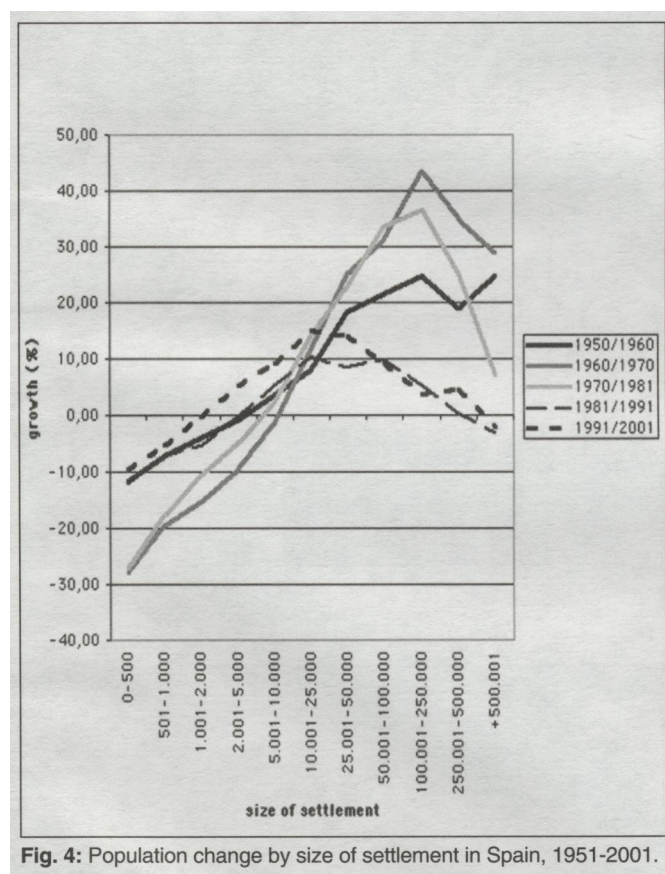


Fig. 4: Population change by size of settlement in Spain, 1951-2001.

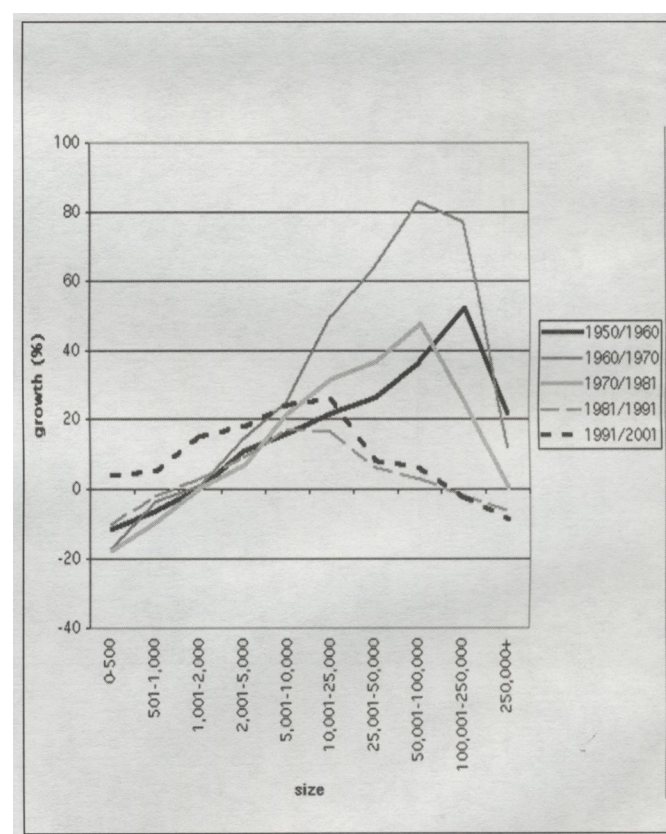


Fig. 5: Population change by size of settlement in the region of Catalonia, Spain, 1950-2001.

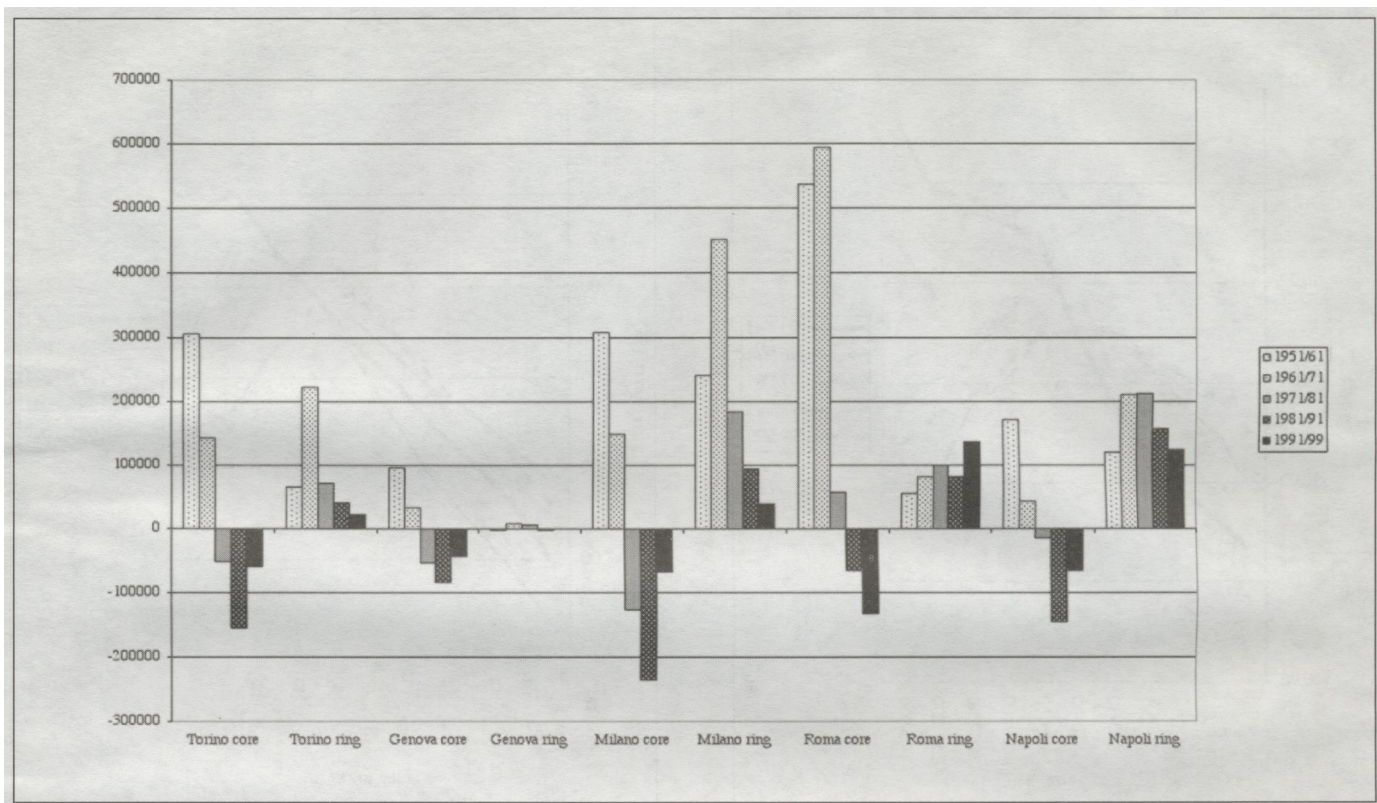


Fig. 6: Population change in the main metropolitan areas of Italy, 1951-1999.

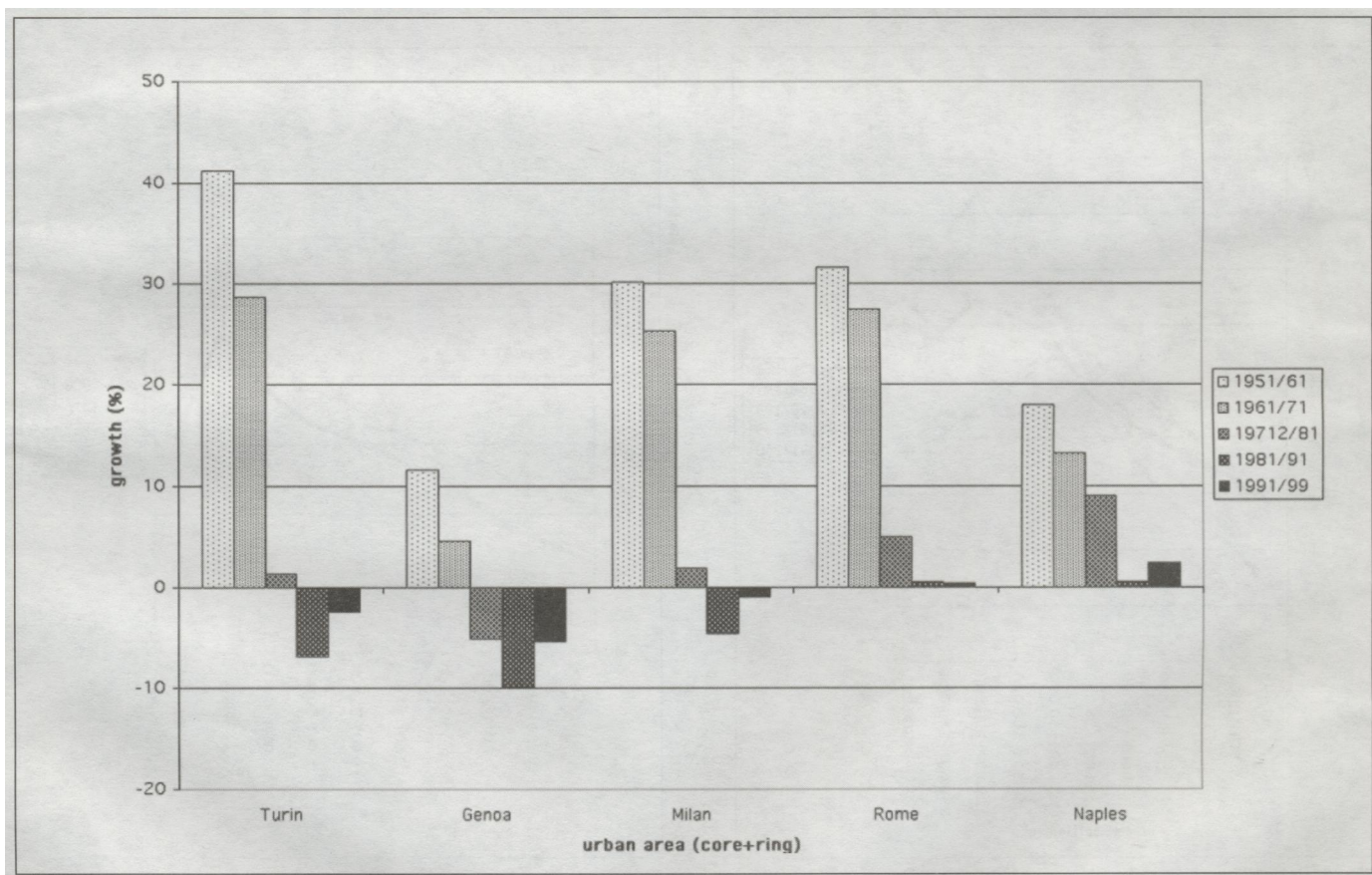


Fig. 7: Population change in the main urban areas of Italy, 1951-1999.

was exerting over the whole national space during the period 1950-1970 has passed. According to Garcia-Coll's studies the processes of urban decline also affected a number of second and third level cities that form the conurbation of Barcelona, i.e. Hospitalet de Llobregat, Santa Coloma de Gramanet, Badalona and Llorella (GARCIA COLL and SANCHEZ AGUILERA, 1997; GARCIA-COLL, 1998).

Barcelona entered the decline phase in the 1970s. There was a very important increase in the population of the cities of medium and large size until the 1970s. Afterwards the growth filtered down to the smaller cities. The most important thing is that during the 1990s all the medium settlement sizes and even the smallest ones (less than 500 inhabitants) were growing. This was not the case for the rest of Spain where the group of cities with less than 2,000 inhabitants recorded a decline throughout the second half of the 20th century. We can say with a small margin of error that Catalonia shows signs of becoming an urbanized region. What is very important to underline is that among all the regions examined the process of turn-round can only be seen in Catalonia.

The main metropolitan areas

Lack of statistics (Spain) or changing definitions of metropolitan areas (Italy) or physical elementary definitions of urban agglomerations (Greece) make it impossible to undertake national and international comparisons concerning metropolitan growth. We have at our disposal data for functional urban regions (local labor markets) for Italy, data on urban agglomerations for Greece and data for Spanish urban areas. These data are more useful for showing the intra-national level of metropolitan growth and the core-ring dynamics rather than for making international comparisons. For the international comparisons it is more significant to see the evolution of the core of the urban agglomerations.

● **Italy:** For the analysis of the metropolitan areas we took into consideration the five main metropolitan areas as delimited by Sforzi for ISTAT (1997). According to this study the national territory (8,000 *comuni*) is subdivided into 784 Labor Market Areas (*Sistemi Locali del Lavoro*). Each area has a core and a ring which are interdependent in terms of residential and job location. According to this delimitation Rome is composed of 65 sub-areas, Milan 99, Turin 43, Naples 42 and Genoa 36. These aggregations change from census to census according to the intensity of the flows, and the interdependence between the core and the suburban areas. In order to be able to make diachronic comparisons, we used the 1991 delimitations calculated on the data for 1951, 1961, 1971, 1991 and 1999 as elaborated by Mela and Buran (2001). Before starting to describe the dynamics of the main metropolitan areas of Italy it is important to underline that Rome represents a unique phenomenon in terms of the structuration of its metropolitan space. In fact, in its administrative limits (the core) Rome also contains what we call the ring in the other metropolitan areas. This means that the core is very heterogeneous in terms of land use and urban form and because of this anomaly the ring of Rome is less important in terms of size and concentration if we compare it with the other Italian cities.

Between 1951 and 1971 the cores showed strong growth, while from 1971 onwards they have all lost population. During the first period, also known as the period of Fordist growth, the cores of Turin and Milan increased by 450,000 inhabitants each, Genoa by 130,000, Rome by 1.1 million and Naples by 215,000. In the second period, the populations increased by 212,000 in Turin, 300,000 in Milan, 120,000 in Genoa, 200,000 in Rome and 200,000 in Naples. In other words, the five cities increased their population by 2.4 million inhabitants during the period 1951-1971, and lost one million inhabitants over the

next 20 years. This is equivalent to a net increase of 1.4 million inhabitants during half a century. Even if an increase of this order shared between five large cities for a period of half a century could seem normal, it is an important quantitative and qualitative change which has brought about a dramatic transformation of the urban landscape: in its social, economic, cultural and political components; in terms of the mass production of housing; in terms of the uniformization of the urban landscape (*periferie*); and in terms of property speculation. By contrast, the rings showed a continuous pattern of growth. During the period 1951-1999, the ring of Turin increased by 400,000 inhabitants, Milan by 970,000, Rome by 320,000, Naples by 700,000 and Genoa by only 10,000. While there was a decline in the core, the rings were still growing. However, after 1981, the rings were not growing sufficiently to compensate for the losses of the cores. In fact, the decline for the five metropolitan cores was of 684,000 inhabitants and the growth of the rings 374,000. This means that the metropolitan areas of Italy are in the phase of de-urbanization: the difference between the total growth of the ring and the total decline of the core is -310,000 inhabitants.

As we can see from figures 6 and 7 the population changes during the last century affected in very different ways the North, Central and Southern metropolises, and their cores and rings. Genoa entered the phase of de-urbanization during the period 1971-1981, and Milan and Turin followed in the next decade. Rome and Naples were in the stage of mature suburbanization (decline of the core, and growth of the ring that compensates for the losses of the core), which slowed down considerably after the 1980s. We can also note that the decline of the Northern metropolitan areas slowed down in the 1990s. These patterns show an important differentiation between the Northern and the Central and Southern agglomerations but they do not allow us to forecast a process of re-urbanization in quantitative terms according to the prediction of the city life cycle model.

Table 1
Population change in the main metropolitan areas of Spain, 1960-1996

| Metropolitan area | Core | | Ring | |
|-------------------|-----------|-----------|-----------|-----------|
| | 1960-1975 | 1975-1996 | 1960-1975 | 1975-1996 |
| Madrid | 47.1 | -11.1 | 605.8 | 98.7 |
| Barcelona | 14.74 | -13.9 | 126.8 | 19.9 |
| Bilbao | 46.6 | -16.9 | 75.5 | 10.0 |
| Malaga | 37.8 | 34.6 | 8.0 | 151.9 |
| Seville | 33.6 | 18.3 | 11.2 | 58.4 |
| Valencia | 41.1 | 5.5 | 82.8 | 24.7 |

(Source: Elaboration after Nello, 2000).

● **Spain:** From table 1, which represents the population changes in six metropolitan areas in Spain during the periods 1960-1975 and 1975-1996, one can observe that the dynamics of these areas are far from being uniform. In fact, we can see that positive population change in the core areas of Madrid, Barcelona and Bilbao during the first period turned negative during the second. We can also see the very important growth of the rings during the two periods and especially those of Madrid and Barcelona during the period 1960-1975. In Malaga, Seville and Valencia, the core areas underwent population growth in both periods. The ring areas of Madrid and Barcelona underwent strong population growth between 1960 and 1975 followed by a slowing in the second period. In contrast, the rings of Malaga and Seville grew more strongly in the second rather than the first period.

The most mature urban area is Barcelona with similar patterns to those of the Italian industrial triangle. In fact, this area is in the process of deurbanization. Madrid and Bilbao are in the phase of mature suburbanization while Malaga, Seville and Valencia are in a phase of growth of the core and ring, with the latter recording more intensive growth. There is a kind of sun-belt effect that concerns the main Spanish urban agglomeration to which we should add important phenomena of urban sprawl that not only concern the second and the third metropolitan belts but also the littoral areas that seem to be between mature suburbanization and de-urbanization like Barcelona.

● **Greece:** The study of the process of population deconcentration (suburbanization) in the two largest metropolitan areas of Greece, as shown in table 2, helps to describe the spread of the population towards the outer urban rings. The table suggests that in Attica (Greater Athens Prefecture) suburbanization has been in progress at least since the 1970s, while this is a more recent phenomenon in Thessaloniki.

Table 2
Population deconcentration in the Prefectures of Attica and Thessaloniki, 1961-1991

| Area | Year | Urban core | Outer ring | Rest of Prefecture | Total Prefecture |
|----------------------------|------|------------|------------|--------------------|------------------|
| Prefecture of Attica | 1951 | 35.7 | 52.4 | 11.3 | 100 |
| | 1961 | 30.5 | 59.9 | 10.1 | 100 |
| | 1971 | 31.0 | 59.8 | 9.2 | 100 |
| | 1981 | 26.4 | 63.8 | 9.8 | 100 |
| | 1991 | 21.2 | 66.7 | 12.1 | 100 |
| Prefecture of Thessaloniki | 1951 | 47.2 | 18.5 | 34.3 | 100 |
| | 1961 | 46.1 | 23.8 | 30.1 | 100 |
| | 1971 | 48.7 | 29.8 | 21.5 | 100 |
| | 1981 | 46.6 | 34.4 | 18.0 | 100 |
| | 1991 | 38.7 | 37.0 | 24.3 | 100 |

(Source: Petsimeris and Tsoulouvis, 1997).

In Athens the ring has experienced high growth and the densities are very high (TSOULOUVIS, 1998). The results indicate that until 1971 in the capital of Greece there was a strong process of population concentration. However, since 1971 a weak process of deconcentration has appeared: the center began losing population and the outer rings recorded strong population increases. In Thessaloniki the suburbanization trend is weaker, while in the other Greek cities the process of population concentration in the cores still continues.

During the period 1981-1991 the metropolitan areas of Athens and Thessaloniki have entered the process of suburbanization and the estimations of the 2001 census show that suburbanization has become even stronger in a context of core depopulation.

The study of the process of population deconcentration (suburbanization) in the two largest metropolitan areas of Greece, as shown in table 2, helps to describe the spread of the population towards the outer urban rings. During the four decades there was a decrease in the central cities' share of their prefectures' populations: Athens from 35.7 percent in 1951 only represents 21.2 percent in 1991, while Thessaloniki falls from 47.2 percent in 1951 to 38.7 percent in 1991. During the same period the rings' share grew continuously. As for the rest of the prefecture areas: after a shrinking process they recorded an increase in terms of share (in Attica in 1981 and in Thessaloniki in 1991).

As we can see in figure 8 representing the main urban areas in Greece, there is an important gap between Athens and Thessaloniki and the rest of the Greek cities. We can also notice the lack of intermediate cities of medium and large size (i.e. 200,000 to 500,000 inhabitants) as well as the contrasted evolution of the cores and the rings of five urban agglomerations. The results indicate that until 1971 in the capital of

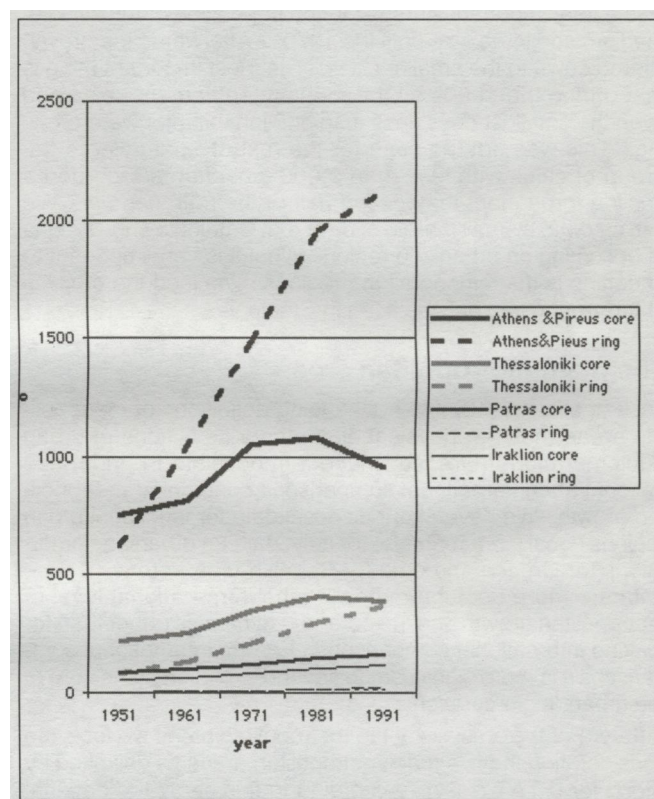


Fig. 8: Population change in the urban areas of Greece, 1951-1991.

Greece there was a strong process of population concentration. However, since 1971 a weak process of deconcentration appeared: the center began losing population and the outer rings recorded strong population increases. In Thessaloniki the suburbanization trend is weak, while in the other Greek cities the process of population concentration in their cores still continues, and even if they are officially called urban agglomerations, the suburban areas are not comparable with the ones of the higher ranks of the Italian and Spanish settlement systems.

In the processes described above there are not simple quantitative changes of population distribution in space but they have important consequences in both quantitative and qualitative terms on the urban landscape and in its functional and social articulation. Independently of the historical differences of the regions and of the cities in terms of development there are some amazing similarities in terms of process and temporality:

"From 1950, and particularly after 1960, a rapid outward movement of the population took place. This resulted in the linear expansion of urban development along the major circulation axes and a closing up of existing built-up areas. The north of Athens, along the foothills of Mt Penteli, and Mt Parnes, and in the regions between Paiania and Koropi to the northeast of Mt Hymettos, new, primarily residential, areas

sprang up. At the same time, almost all the coastal sections in the study area witnessed extensive construction of second homes and tourist facilities. Astronomic land prices and the absence of effective housing programs caused a large section of the population to move to cheaper land in areas not covered by any town planning regulations. This uncontrolled development has led to several severe abuses of the land. Uses have been irrationally distributed and areas created with many incompatible uses. Also residential settlements have expanded into areas which should have been reserved for other purposes. These practices were greatly facilitated by legislation which permitted the parcellation of large tracts of land into small plots, plus the lack of any zoning or other effective controls over land speculation and building designs" (PSOMOPOULOS, 1977).

For Lila Leontidou the process of capitalist urbanization in the Mediterranean city at the end of the 20th century is extremely complex: "In Greece, (...) popular suburbia was combined with independence from the capitalist market. The expansion of capitalism took the form, not of rationalization and concentration of capital, but that of the domination of a rather competitive and speculative market over the previous widespread informal housing sector. The Greek housing and land market were traditionally dual, composed of a dominant capitalist/ speculative and a subordinate owner-built/informal sector; landownership was fragmented; and the role of planning was minimal. Capitalism then expanded and came to control housing production, and the dual market was increasingly unified through the suppression of the informal sector" (LEONTIDOU, 1990).

Insolera, describing the urban sprawl in Rome on the basis of aerial photographs, wrote: "We are at the beginning of the period 1960-1980, during which Rome took the size and the shape of a discontinuous megalopolis, and during which *abusivismo* (illegal urban development) moves from being an episodic to a general praxis of urban development (...). The Roman countryside characterized by an undulating landscape is completely affected by the production of houses sometimes made up of individual, small scale housing (*villini* and *palazzine*), other times from continuous and intensive built-up forms (sprawls). What is striking is the clearest division of urbanization into two types: one where the street shape predominates and the other where no design is distinguishable" (INSOLERA, 1980).

If we change the toponyms, the processes, described by the three authors for Athens and Rome, may describe a general model of development of the Southern European metropolis in terms of urban sprawl.

Conclusion

There has been an increase in urbanization processes in the three countries of Southern Europe – Italy, Spain and Greece – that we have examined in the sense that Hope Tisdale gives to the process of urbanization, i.e. the multiplication of the number of cities and the extension of the existing cities. At the same time there are important processes of population deconcentration at all scales: national, regional and metropolitan. Furthermore, the massive inter-regional and inter-urban migration from the poorer internal areas to the capital cities and/or the most industrialized regions ceased to be as important as in the 1950s and 1960s. These processes had as a consequence urban concentration in the main urban areas, the formation of conurbations and metropolitan areas, and processes of urban sprawl and littoralization.

The foregoing analysis shows that there is a complex relationship between city-size and growth. We have passed from a strong positive correlation in the 1950s to a weak one after

the 1970s. Big cities have lost population, while medium-sized cities increased, but this increase is also due to the processes of suburbanization and to the overspill of medium and small towns. The small settlements with a population inferior to 2,000 have also declined – except in the case of Catalonia.

There has also been a decrease in the pace of growth. In the 1950s the range was between -20 percent to +40 percent, in the 1990s this rate reduced considerably: -7 percent to -6 percent for Italy and -6 percent to +8 percent for Spain. In addition, there was an inversion of the big cities that from increase passed to decline, a continuity for the small areas, and an increase in growth for the medium-sized cities.

It is important to underline that these processes are not only quantitative but that the situations of increase and decrease of population mark profoundly the structure of the metropolitan areas and of the territory in general.

The processes of suburbanization are not linear: there are some suburbs in decline while others are increasing. There is a continuity between the inner city dynamics and the outer city ones. There is also a process of urban sprawl that is increasingly important and does not only affect Italy but also other countries. Those who flew over Greece or Italy in the mid-1970s and have retained a mental map of the urban development at this time are well positioned, if they fly again now, to appreciate the dramatic changes as a result of the processes of urban sprawl and littoralization.

It can be said that behind this apparent convergence of urban systems at the international scale, there are significant differences. The main difference concerns the urban structures of the national settlement systems that are more articulated in Spain and Italy than in Greece.

- **Italy** and **Spain** have a "geographical capital" in terms of the number of their large and medium-large cities which have existed through the medieval and the Renaissance periods and they also have levels of high decentralization and regional autonomy. For these countries, it is easier to propose and to implement regional and urban policies for planning at the national and the local level.

- What is very evident in **Greece** is the lack of the medium and the medium-large cities. In Greece only Athens and Thessaloniki are proper urban agglomerations.

The analysis of the process of concentration shows that:

- In **Italy** the process of counterurbanization has touched most of the industrial regions of the North, and in turn has affected certain regions of the Center and the South. In the South the processes of population concentration persist. As concerns the metropolitan areas, we observe an opposition between the urban industrial concentrations of the North, and the other urban areas of the Center and the South.

- In contemporary **Spain** we can observe a mature suburbanization process in the largest metropolitan areas, Madrid and Barcelona, and in Bilbao, while the metropolitan areas of Malaga, Seville, Valencia and Zaragoza are under a process of early suburbanization.

- In **Greece** the main metropolitan areas of Athens and Thessaloniki experienced a similar process as Madrid and Barcelona (mature suburbanization) while the medium urban agglomerations are in the stage of concentration of population in both the core and the hinterland.

But we must not forget the complexity of the three countries that also derives from the fact that during the last half of the 20th century they were transformed from areas of out-migration into areas of in-migration attracting population from the less developed countries and from the former socialist countries (OLIVERA and ABELLAN, 1997). This means that there are important quantitative and qualitative changes and the data available are very poor in order to take into account the struc-

turation of the interurban and the intra-urban scales.

The processes of urban concentration occurred as a natural process during the 1950s and the 1960s with devastating effects in terms of land uses and territorial structuration. The processes of deconcentration occur in a similar "natural way" but with more control in terms of planning legislation. The question is how to avoid producing more problems in terms of congestion, land use and zoning in a situation of deconcentration and how to avoid the production of natural linear cities along the main transportation axes and the littoral axis.

We think that it is very important to have more data for the analysis of urbanization processes in Europe, and in Southern Europe in particular. We also think that it is very important to multiply the empirical research in this area and to see what are the existing and the possible interconnections and complementarities between the settlement systems of Southern Europe.

The forthcoming publication of the results of the censuses of Italy, Spain and Greece will provide the opportunity to examine the further development of the trends we identified in this paper.

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