INTRODUCTION

During the second half of the 20th century, the coastal areas of the Mediterranean North shore were put under the strong pressures of tourism of masses. For this reason they are today one of the clearest examples of urbanization dynamics in the developed countries.

Recently, territorial changes have newly accelerated, and many of these areas have entered into an intense process of redefinition, which is taking them towards a greater complexity in the land uses, related to the processes of globalisation of the economy and to the increase of mobility flows. These processes entail a change in the urbanization pattern of the territory, with the transformation of settlements and the appearance of new urban forms.

The development of this type of processes can be seen in the area of the Alt Empordà coastal plain (Catalonia, Spain), which one day experienced an intense urbanization related to tourism. Today, recent changes which are taking place in this area are associated to a set of factors of diverse character and acting at different scales.

As an analysis frame, existing literature has been reviewed, both at international and local levels. Documents are referred to the appearance of new urban realities related to the new global context, and, more specifically, to the growth processes that lead to urbanization extension. In this way, it has been possible to see how, today, processes of metropolitan dispersion overlap with typical dynamics of local areas, like endogenous growth in rural spaces, or the changing processes of tourist spaces, increasing the pressure over territory and over the extension of urbanization.
METHODOLOGY

Research has combined documentary, statistical, cartographic and the fieldwork analysis, and it includes a personal methodological contribution as it is the construction of a typology of settlements, and its later application using a GIS.

The departure point for the definition of the typology has been the bibliography analysis on the ways of growth of the cities, which has been complemented with the analysis of the city-planning and fieldwork. Work has been done on the basis of the concepts of settlement and habitat. By forms of the settlement it is understood the type of internal structure of the urban areas, both from a morphologic and from a functional point of view. Also, by forms of habitat it is understood the characteristics of the houses, according to their physical configuration, their configuration in the lot and its use. Thus, one has been different between the settlements of traditional type, that are distinguished by their compact character, its diversity of uses, and by to have formed of slow and integrated form; and the new types of settlements, that characterize by their extensive character and their low density, for being highly specialized in their use and for having appeared in a very short period of time. First types include historical areas and their extensions, whereas the second ones include settlements originated in tourism (tourist urbanizations and campsites), and industrial, commercial, or services areas, and also low density residential growing areas.

This typology has been applied to the territory using aerial photos and digital mapping. For the period of 1950s, photographs come from the so-called «American» flight of 1957, while present photography (1997) source is Spanish Ministry of Agriculture, Food and Fisheries. Results obtained have been later related to more recent socio-economic trends, with support of statistics and fieldwork.

ANALYSIS

Urbanized land in the coastal Plain of Alt Empordà in the 1950s represented only 223.2 has, barely a 1 percent of the territory, and was distributed in a quite regular form. If urban land is combined with buffers drawn up on the base of distance to the coastline, in intervals of one kilometre, there are up to sixteen of the nineteen intervals with some percentage of urban land.

Those settlements were composed almost in their totality by traditional forms of settlements: they represented 95 percent of the urban land. These forms included both the oldest areas villages, and their extensions originated in 18th century, as a result of the positive dynamics of the agrarian sector. A part from these traditional forms (the remaining 5 percent), there were only small services (schools, cemeteries…) or small manufactures related to agriculture. In what concerns habitat, high density forms –townhouses– were the most common: 92 percent of urbanized land. Low density types, constituted by single-family detached houses, represented only 3 percent. Townhouses still displayed the characteristics of the typical house of a Catalan village. Finally, there was the type corresponding to dispersed habitat, which corresponded to the industrial or service areas (5 percent).
Changes in the typology of settlements. The case of Alt Empordà plane (Girona)

Today the study area has increased its urbanized land (2,210.4 has; that is, nearly 7 percent of total territory). Most of it is concentrated in the coastal municipalities, where tourism and vacation homes development have more impact. If data and buffers of distance to the coast are combined, it is possible to verify that 50 percent of urbanized land is located in the first kilometre of distance to the coast, and that 84 percent is concentrated in the first five kilometres.

Forms of settlements originated in tourism are those with a greater extension: 71 percent of urbanized land. On the contrary, traditional forms only represent 15 percent. Finally, the industrial, commercial and service zones represent 9 percent, and low density expansions add to the remaining 5 percent. Within types related to tourism, vacation home areas (63 percent of urbanized land) have much more presence than campsites (8 percent).

a) Forms of traditional settlements are a continuation of 1957 settlements, and they are arranged through all the territory. For this reason it is not possible to relate easily them with the distance to the coast. They are present in fifteen intervals of buffers.

b) Forms related to tourism correspond to expanding areas that have never been produced in isolated traditional nuclei. Up to eleven municipalities have vacation homes areas: between them, the most relevant are those of the coast; a series of municipalities that form a second coastline; and some inner municipalities, where vacation homes development is related to golf. However, campsites can be found only in the municipalities of the coast. The addition of vacation homes areas and campsites reveals the four coastal municipalities as the most radically transformed by tourism. Forms related to tourism show a clear tendency to diminish when distance to the coastline increases: 63 percent are in the first kilometre, and 94 percent between the first five km. Only nine intervals are accounted in this category.

c) Recent low density developments are urban forms that are located in the limit of the pre-existing nuclei and that are characterized by their planned layout and its extensive character. They are occupied basically by residential uses, and low density typologies proliferate. Most of them are first homes. Municipalities with a higher percentage of this kind of development are those closer to the coast, but there are also some others more in inland. It looks that those developments show a location non related to the distance to the coast factor. Up to thirteen intervals display these forms of settlements.

d) Finally, the industrial, commercial and service areas are no longer those reduced 1957 establishments. Today are extensive areas segregated from the rest of settlements, and related to the direction of the main roads.

On the other hand, the most common types of habitat are low density areas (detached and semidetached houses), which represent 62 percent of the urban land. At a great distance we find the high density forms (buildings townhouses and upscale apartment buildings), with 21 percent. Finally, in the category «others», campsites (shops, caravanning and bungalows), and industrial (factories, warehouses), commercial and service zones are included, adding 17 percent. Between the low density types, detached single-family houses are the most frequent
(60 percent of the urbanized land), since tourist vacation homes areas have been built overall on this pattern of housing. Between the high density forms, townhouses predominate (8 percent of the urbanized land). The high-rise apartment buildings are usually in the seafront, and they only become dominant in some zones of municipality of Roses. Thus municipalities where the detached single-family houses predominate are, consequently, those ones where there has been a greater proliferation of tourism urbanization, both in first and second coastline.

In summary, throughout second half of 20th century, there was a change from a model in which urbanized land was quite reduced and was distributed throughout the territory, to another one in which there has been a dramatic expansion of urbanization, that has been concentrated in spaces close to the coast. The reason of these changes, as it has been explained, is the appearance of new types of constituted settlements overall by forms of settlements related to tourism and forms of low density habitat, whereas traditional settlements have maintained a more moderate extension. However, at present, both are put under complex transformation and redefinition processes that in some cases result in the appearance of new urban forms.

Vacation homes areas originated by tourism acquire more and more a residential character. This process of functional transformation may be a response to change to permanent residence by owners, mainly between retired people from Northern European countries; and also to the absorption of part of local residents demand, directed to single-family typologies, who doesn’t find in other places the house that can pay; or to the location of extra-communitarian immigrated population in those zones where the up-scale apartments with reduced rents predominate.

In turn, traditional settlements experience the processes that produce changes in the use according to time: the high daily mobility, fast loss of agrarian jobs –which causes that buildings destined to agricultural functions fall in disuse--; progressive increase of non-permanent populations– that not always lodge in the most suitable conditions--; increasing rehabilitation of empty buildings for vacation homes uses –resulting in clean, pretty, but lacking of activity villages--; and, finally, reform of public space to help the tourist valuation of historical or cultural resources, as an alternative to the sun and beach, which increases the presence of tourists and make urban space more thematic.

Some of these processes result in the appearance of new forms and types of establishment that have contributed to the rupture of the pattern of urbanization consolidated until some years ago:

a) Is common the building of vacation homes areas in the second coast line, more and more with characteristics typical from those in the first line, but where the buildings are first-homes. They are made for very specific costumers, mainly retired people from Northern European countries. Often they are areas with a certain control of space and access restriction unless you are property owner.

b) Low density residential extensions proliferate in the limit of the pre-existing urban nuclei. They are especially significant because they represent the rupture with traditional forms in small villages. The processes that lead to these developments respond to the dynamics of real estate market and, more specifically, to the part of population
looking for houses with the best possible conditions and prices, resulting in frequent displacements inside the municipality itself, or nearby municipalities. The common result is the constitution of an independently standardized, repeated landscape, disconnected from traditional forms, the size of villages or the predominant economic activity.

CONCLUSION

As it has been showed, the plain of the Alt Empordà is characterized for having an urbanized land that mostly has tourism in its origin, appears concentrated closely to the coast, and has been developed in low density patterns, whereas the rest — formed overall by settlements of traditional type — is distributed in a more regular way throughout the territory. Nevertheless, present transformations put this model in transition, and a good example of new urbanization dynamics that unfold in the territories of Mediterranean Europe, and which are characterized by the interaction of processes of metropolitan dispersion, the transformation of the tourism and the tendencies of local or endogenous character.