

# RISE AND FALL OF NEW URBAN NATURES: ORNAMENTAL PLANTS AND URBAN SPRAWL IN ALICANTE<sup>1</sup>

**María Hernández Hernández**

Instituto Interuniversitario de Geografía. Universidad de Alicante  
maria.hernandez@ua.es

**David Sauri Puyol**

Departamento de Geografía. Universidad Autónoma de Barcelona  
david.sauri@uab.cat

**Alfredo Morales Gil**

Instituto Interuniversitario de Geografía. Universidad de Alicante  
alfredo.morales@ua.es

## I. INTRODUCTION: RESIDENTIAL EXPANSION AND CHANGES IN URBAN LAND USES

The residential expansion that took place on Spain's Mediterranean coast between the late 1990s and 2008 had a number of significant territorial effects, which are readily apparent as changes in land use and changes in the landscape. Between 2001 and 2011, the total number of homes in Spain increased by almost five million, or approximately 25% (Ministry of Public Works, 2012a), as the housing stock rose from 21.03 to 26.01 million homes respectively. This intense urban development was heavily concentrated in territorial terms. 2,487,262 of the new homes approved during the period 2000-2011, or 43.88% of the total for Spain as a whole, were built in the eleven provinces on the Mediterranean coast. This level of building was particularly surprising in the province of Alicante, which stood at third place in the Spanish ranking (345,410) after Madrid and Barcelona, and ahead of provinces with much larger populations (de jure population) such as Valencia, Malaga and Seville. The residential expansion was accompanied by an acceleration in the shift in the urban model that had begun

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in the mid-1980s. Instead of concentrated vertical building in blocks (apartments), the residential expansion was based on the spread of new urban residential models with medium and low density, based on an increase in single-family detached homes and single-family housing in suburban areas, or in non-urban areas that had been hitherto undeveloped.

The significance of this phenomenon can be understood in terms of a combination of several factors (socioeconomic, cultural, mobility systems and urban planning regulations). The municipalities' policy for obtaining revenue based on building permits, and planning reviews aimed at creating land designated for building, placed the regional governments in a very advantageous position, and led to unlimited urban expansion in which speculation was another characteristic of this real estate bubble (Romero et al., 2012). The promotion of infrastructures and the improvement of transport links fostered by the European Union's Cohesion Funds and Structural Funds also played a role. Shorter journey times and lower costs between primary residences and holiday homes, between Spain's Mediterranean coast and the rest of Europe, and even from the interior of Spain to the coast led to increased mobility. The strong expansion in residential uses on the Mediterranean coast was related to the purchase of homes by people from elsewhere, but above all, was a result of the demand from European, North African and South American immigrants. With few exceptions, the first of these groups accounts for more than 15% of the total population in the provinces bordering the Mediterranean; this proportion rises to over 50% in the provinces where residential development dates back to the 1970s (the Balearic Islands, Malaga and Alicante). An analysis on the local scale shows the intensity of the influx of the population from elsewhere in Europe over the last decade. In some municipalities in the south of the province of Alicante (Rojales, San Fulgencio and San Miguel de Salina), the percentage of foreign-born residents increased from 35% to 70% of the total population between 2001 and 2011.

## **II. OBJECTIVES AND METHODOLOGY**

Residential expansion and the increase in more extensive urban models have led to a significant increase in green areas. The relationship between the increase in extensive urban models in which landscaped spaces are a defining factor (despite the significant differences in area) and the increased demand for ornamental plants has not yet received a great deal of attention. A priori, these relationships seem obvious; however, they need some clarification and their consequences need to be analyzed from the economic-productive point of view. In the case of the coast of Alicante, with a high population of central European origin, coming from cooler and wetter environments with more extensive urban models, the socio-demographic profile of the new inhabitants may be a contributory factor to the spread of these extensive models. However, it may also be a determining factor in the type of plants predominating therein. An examination of the relationships between residential expansion and European immigration may provide social variables (age, income levels, culture, etc.) that explain the expansion of these areas.

Taking into account both factors (urban development models and factors influencing consumption patterns), the specific objectives of this article are:

- To highlight the intense process of urban growth that took place on Spain's Mediterranean coast;

- To identify the changes in the residential model and more specifically, in the spread of low and medium density models;
- To confirm the increase in landscaped areas and the boom in construction, and the increase in businesses specialising in ornamental plants (production and marketing);
- To analyze a possible correlation between the increase in green areas associated with the expansion of residential and urban uses, and its effect on the ornamental plant sector as an activity with a significant ability to generate income and demand for labour per unit of area.

The area selected - the coastal and pre-coastal municipalities in the province of Alicante - was chosen for a number of reasons:

- It is an area in which urban development has been very intense, beginning with the development of tourism in the 1960s and 1970s, and becoming more marked in the first decade of the twenty-first century;
- The urbanization process has been associated with the spread of more extensive urban models;
- This implementation of this dynamic has been different over in time, in intensity and in terms of urban uses between municipalities in the north and the south of the province;
- The intensity of the urban expansion process is associated with the influx of large numbers of foreign residents from Central and Northern Europe;
- The presence of intensive agriculture, in which early and extra early horticultural crops, flowers and ornamental plants are significant in territorial, social and economic terms.

### **III. THE ORNAMENTAL PLANT SECTOR IN ALICANTE: GROWTH, CRISIS AND RESTRUCTURING**

#### **III.1. Changes in areas and production of ornamental plants**

The cultivation of flowers and ornamental plants accounts for a small area (about 6,000 ha. in Spain in 2010); however, it is very important socially and economically. The social factors include the high levels of employment among the labour force involved in their production (Naredo, 1996), job stability, the family-run nature of the farms and their ongoing ability to absorb labour. The economic factors include the value of the production of horticultural crops, flowers and ornamental plants within crop production as a whole (MAGRAMA, 2012a) and its positive contribution to the Spanish balance of payments (ICEX, 2011).

In the last decade, the trend across Spain as a whole has clearly been upward: the area doubled in less than 15 years, from 2,000 hectares in 1997 to 5,100 hectares in 2010 (MAGRAMA, 2012a); the importance of these crops within the overall sector of «flowers and ornamental plants» has also increased. The changes in the area occupied by flowers and ornamental plants reflect the increasing specialization in the province of Alicante and its heavy territorial concentration. The figure of 147 hectares in 1998 had increased to 1,757 in

2011 (MAGRAMA, 2012a). This process is related to the importance of horticultural farms in the south of the province cultivating predominantly prime and greenhouse crops as a strategy to maintain profitability, and thereby cope with increased costs and compete with the expansion of tourism-residential uses. The increase between 1999 and 2005, when the largest acreage was achieved, was frankly spectacular. There was an undeniable coincidence with the peak of urban development in new urbanized areas. This upward dynamic was related to the heavy demand from municipalities and property developers, and from individuals to a lesser extent. Municipalities and property developers purchase particular species - mostly palm trees and olive trees - for use in public spaces in new urbanized areas. This is complemented by purchases made by individuals, who buy them to decorate the exteriors of their new homes. The marked increase in urban uses in which landscaped areas predominate has contributed to the increased consumption of ornamental plants. This heavy dependence by the construction sector is also apparent in its subsequent decline by a third since 2007, coinciding with the bursting of the real estate bubble. There are several reasons behind the decline in areas occupied by ornamental plants in the province of Alicante, namely:

- **A reduction in demand.** The decline in municipalities' revenues with the bursting of the real estate bubble and the restrictions in municipal spending has led to a reduction in various areas. These include a reduction of services contracted to gardening services companies, which affects the preparation of new landscaped areas rather than maintenance. This reduction in spending by government bodies has come at the same time as a considerable decline in demand from urban developers, who with the onset of the real estate crisis often left many promotions unfinished. Obviously, they also failed to fully develop these urban spaces.
- **Specialization** in specific ornamental plants. Producers in the province of Alicante have concentrated their production on a narrow range of ornamental plants, with a predominance of small tree species (palm and olive trees) and bushes to a lesser extent (including some varieties of oleanders, which are extensively used in main roads and roads providing access to urbanized areas, and *euonymus* associated with garden hedges), and herbs. These production lines are determined to a large extent by their strong links to the demand from developers and local authorities, but also by the region's climate, which enables profits to be maximized given the portfolio of plants cultivated.
- **Decline in profitability.** The collapse in prices of palm trees has led to either their cultivation being given up, or a switch to other varieties of ornamental plant. This decline is the result of a combination of several factors: a disproportionately large supply compared to the demand, given the significant reduction in regular consumers, the increased production costs associated with the fight against the red palm weevil, and competition from Italian producers of several varieties of palm trees. This in turn has led to an increasingly limited ability to export to traditional markets such as Europe and even the Middle East.
- **Effects associated with the blight of the red palm weevil (*Rhynchophorus ferrugineus*).** Despite various studies conducted by various government bodies, there is no effective method of fighting against this invasive species. In the absence of a safe

procedure, apart from applying phytosanitary treatments, the infected tree bases and those suspected of being infected are removed, in order to prevent the insect from spreading. This has led to significant quantities of adult individuals suitable for sale being uprooted instead. The strict legislation against this disease, the approval of protocols for action for both businesses and individuals, and the costs associated with its implementation have increased the crop's production costs; this has reduced its profitability and accentuated the losses associated with the fall in demand.

In addition to the marked territorial concentration, the distinguishing features of these types of farms are their size and management system, their cultivation techniques, their crop lines and their marketing channels. There are two basic lines of cultivation, namely «plants and small bushes» and «large bushes and trees.» The climate in the region means that it is possible to cultivate a wide variety of both indoor and outdoor species; as a result, it is common to find nurseries which have a large outdoor area for growing bushes and trees as well as plants in greenhouses. The average size of the farms is about 7 hectares, with those specializing in «plants and small bushes» having production units of between 2 and 7 hectares, and those concentrating on «bushes and trees» being larger than average (between 3 and 18 hectares).

The strong point of their business lies in their versatility as regards production. It is possible to change crop, and thereby focus the supply towards another customer segment, without this entailing a major change in the structures of the company. However, the extent of adaptability to changes in demand is determined by the duration of the crop cultivation cycle. This is around one year for «plants and small bushes,» and between two and eight years for large bushes and trees. As a result, the farms in which the latter predominate have been the most heavily affected by the real estate crisis.

The main customers are non-producing garden centres, public institutions (municipalities and provincial councils), wholesalers (hypermarkets and shopping centres), retailers (florists) and the general public. It is difficult to establish the clientele segmentation percentages. Each company has its own type of customers and markets, which are often determined by the product cultivated, and they often vary markedly from one to another. However, taken as a whole, it is possible to establish the following distribution: gardening company centres (45%), wholesalers (31%), retail sellers and the public (14%) and public institutions (9%).

### III.2. Changes in areas marketing ornamental plants

There are some difficulties involved with analyzing this business sector. First, the criterion under which they are registered as businesses (garden, indoor landscapers, outdoor landscapers, garden design, etc.), leads to companies being registered in various sectors, and second, they provide more than one commercial service. It is therefore not surprising to find a services company that has its own nurseries, or a *garden centre* offering consultancy services, or a farm directly marketing part of its production.

Establishments with an economic activity that is strictly limited to marketing have traditionally been concentrated in the northern part of the province (the Marina Alta and Baja areas). Although it has declined over the last decade as a result of the significant urban growth

in the decade 1998-2008, this level of concentration highlights the emergence and consolidation of two tourism-residential models in the province of Alicante. The first is the northern area, which is older, and characterized in broad terms by the predominance of single-family homes on medium-sized plots, with a high level of development by private individuals. The southern area (Bajo Segura), which is more recent, is characterized by medium-sized developments with shared areas, with mostly high-rise and/or semi-detached homes. The green areas are smaller in the latter type. This type has required ornamental plants for their gardens since the early seventies. This explains the appearance of establishments specializing in the sale of plants for these inhabitants, who mostly come from Central and Northern Europe, who are retired or have taken early retirement, and who in many cases have purchased their homes in what is known as the «second line» of the coast, as the coastal areas have to a large extent been occupied with more intensive types of land use (apartment blocks). The longest-standing tradition, from the tourism-residential point of view, is reflected in the significant presence of garden centres that engage in sales in the *strictest sense*, and supplement them with other types of business activity (marketing and consultancy). This also means that this area (the north of the province) is where the oldest establishments are located. The existence of areas engaging in production, as well as the importance of direct sales to the general public and retailers (around 20%), the chronologically later residential expansion (since the late 1990s), but also the high intensity of building of housing estates in the past decade, is reflected in the growing importance of establishments combining production and sales in the south of the province, the fewer garden centres and their more recent establishment.

In these establishments, the portfolio of products tends to be broad in terms of the plant varieties offered (medium-sized trees, bushes and small plants, palm trees and olive trees) and the diversity of customers at which their products are aimed (mainly the general public and retailers, and wholesalers and public institutions to a lesser extent). The distribution by group and by type is linked to the predominant type of garden, which given the weather conditions and the price of a cubic metre of water, means that plants with limited water requirements are chosen. Most items sold are trees and bushes that are complemented by flowers and/or herbs. They offer an extensive portfolio of services, ranging from simply selling plants and gardening products, to advising on the creation and maintenance of gardens. This is to a large extent related to the size of the business. The former could be considered the equivalent of retailers. Those offering services that go beyond sales (consulting, sales and installation, maintenance, etc.) are a limited number of businesses which are heavily concentrated in the metropolitan area of the city of Alicante.