

CENTRAL PLACE THEORY REVISITED IN MALLORCA

Margalida Mestre Morey

Departamento de Geografía
Universidad Autónoma de Barcelona
margarita.mestre@e-campus.uab.cat

With the application of the first quantitative studies on the island of Mallorca, the historian-turned-geographer Alberto Quintana, in his doctoral thesis *The urban system of Mallorca*, reached several innovative conclusions for its time, among others, on the trade activity, particularly on the distribution of retail establishments and services of 1970. The author suggested that perhaps the capital, the center of Mallorca's prime urban system, was located out of the island, for example, in Barcelona (Quintana, 1979: 89). On this basis, this article aims to recover the work of Quintana to contrast with 2011 data, with the intention of observing the evolution of the question he studied in the past 40 years.

Thus, the hypothesis which is pretended to be demonstrated is that during this period there has been a loss of centrality that has led and can also lead in the future to profound changes in the characteristics that have so far defined the Majorcan urban system as for instance the imposing macrocephaly. Going from the conception of centrality to the concept of integration of the whole island.

To reach these results Quintana worked, in a pioneer way for the island of Mallorca, with a method created by Brian Berry from the central place theory (CPT) of Christaller and Lösch. With the objective, as we mentioned, to reach an approximation to explain the location of retail and services, considering that its distribution roughly corresponds to that of the consumers (Berry, 1971: 7). Thus, the amount of population residing in each municipality would maintain a direct relationship with the number and diversity of these establishments.

Before continuing with the development of the analysis, it should be taken into account that, by the authors, the specific choice of retail establishments and services is because they represent the dividing line between geography production and consumption (Berry, 1971: 2).

I. EVOLUTION OF QUINTANA'S WORK, 40 YEARS LATER

Before analyzing the correlations which enable us to measure the degree of centrality of these establishments, along with the population, the data from two survey dates (1970-2011) have been compared with the intention of obtaining a first approximation of evolution from both.

First, as to the distribution of establishments, it must be mentioned that the 1970 data, belonging to the Industrial register of Majorca (Tax License) of 1971, gave Quintana a category of its diversity divided in branches or groups too broad as to reach where the author wanted to concrete. Working with much more limited groups, the National Classification of Economic Activities 2009 (CNAE09) has been able to work with data from 2011. So much so, there is also an initial difference of +9708 establishments in 1970 than in 2011, which has not led, as discussed below, a problem to relate to both data.

Secondly, and despite the mismatch, comparing both data, it has been shown that the municipalities that gain and lose a larger number of establishments and population are, with just one exception, the same. Notably, the municipality that greater relative weight lost is Palma, thus showing the first signs of redistribution and integration, mainly in the municipalities on which the city extends on (Mestre, 2013; 2015).

A comparative analysis of the results of the correlations between the two base years (Quintana, 1979: 87-90) is going to be carried out, in order to further analyze these first signs of integration of the urban system. In addition to the correlations, redoing Quintana's work, two types of establishments created in order to meet the commercial importance of the Majorcan municipalities (Quintana, 1979: 91-96) will also be updated to 2011.

I.1. Correlations

By analyzing the evolution of the correlations, the conclusions reached by Quintana in 1970 have been reaffirmed, but obviously adapting the concept of centrality.

If the author, in his doctoral thesis, claimed with the first result (0.737) that on the island there was a high degree of specialization due to the lack of diversification, in 2011 (0.363) the trend has not changed and this specialization has only strengthened.

For the second correlation, the result of 2011 was the same as in 1970 (0,997), a perfect correlation, which reflects that currently there is a relationship between municipalities with more population and more establishments. This result could already be sensed after stating that there is a relationship between the municipalities that gain and lose more relative amount of population and establishments in the initial comparative analysis. The main conclusion that stems from this result is that, having demonstrated the redistribution of the population on the island of Mallorca (Mestre, 2015), there has also been a redistribution of retail establishments and services on the island. However, it should be clarified that the characteristics that define the centrality in the last 40 years have changed, so to understand this result, the general conclusion reached by Quintana in applying this methodology will be taken as a reference. In this conclusion, the author deduce that the CPT can only be applied in those territories over which there is not a specialized function, which is not the case of the island of Majorca, where from 1960s the importance of tourism has been growing (Quintana, 1979: 89).

Knowing that tourism is the engine of the Majorcan economy and its influence on the quantity and diversity of retail establishments and services is undeniable, there are some groups such as “Tourist accommodation” and “Rental vehicle” that can be explicitly considered as tourist, because it is the tourists who consume them (Lanquar, 1991). In addition, it must be taken in account that the location of the touristic establishments in a particular point in the territory is no longer motivated by the number of people residing there, but to a number of opportunities that make this place attractive for consumption by tourists (Riera, 1988).

This change in the logic of the location modifies the concept of centrality which TLC is based on, and as Quintana said, it makes it unusable. But, if the tourism logic is incorporated into this concept, the centrality would be understood as “the location of an establishment based on the population or the population located in a point in the territory due to the presence of a certain type of establishment”. Introducing this aspect, the concept of centrality is not modified, since the results of the correlations obtained here are related with the works of both authors.

To conclude this section and to reach an approach that fits to the reality of the economic activities of the island, it is essential to incorporate two parameters that help us achieve the results. On the one hand, there is the index of human pressure (IHP), which measures the variability of the total population living on the island over a year, including tourists, and on the other hand, the registers and the discharges of the account trading, which reflect the evolution of enrollment in official census. Knowing that the disadvantages that determine these data are not minor, they still allow the evolution of both parameters throughout the year, approaching the phenomenon of the seasonal, which is explained by the high temporal arrival of tourists, which causes a period of high commercial activity. Thus, the correlations represent a picture of a specific time of the year, in which data are generated, making it impossible to extrapolate these results to other periods.

1.2. Types of commercial equipment of municipalities

Due to the fact that the scale of measurement of the variables is independent in the coefficient of correlations, it is not yet known if the number of establishments is enough for the registered population, but there is a relationship where the more people, the more establishments or vice versa. Therefore, with the intention of knowing if the number of establishments in each municipality responds to the number of registered inhabitants, Quintana devised two qualifying types of municipalities, one with relative and the other one with absolute data, obtaining, in the last one, only the result over those groups of non-tourist establishments.

With the analysis and updating of the qualifying types of 2011, some aspects need to be taken into account considering that the two qualifying types are not comparable between them because, as we mentioned, one of them works without those groups of establishments considered tourist. So in the first typology, working with relative data, it is evident that in 40 years the commercial equipment of retail establishments and services has been strengthened mainly in the coastal municipalities, and they are currently equipped, over equipped or very over equipped, only with the exception of Lluçmajor in which the present number of establishments is not enough for the number of registered population. Moreover, at the heart

of the island there is a variety of results: some municipalities have remained underequipped, others have fallen below this result and some others have been equipped so that the number of inhabitants matches with the establishments.

However, in the second qualifying type, which has not tourist establishments, the situation changes, and the pre-tourist commercial system based on the municipalities of Palma, Inca and Manacor (Rullan 2002: 321-6), rises again despite being highly influenced by the same sector which dismantled it.

II. CONCLUSION

Once the various methodologies used Quintana to work with his doctoral thesis have been applied, updating results allow us to reach different conclusions.

Firstly, there is the loss of relative weight of Palma both in number of population and commercial activity and services for the rest of municipalities of the island. This proves that similarly to what happens with the population (Mestre, 2015), with facilities there is also a redistribution of its location on the island. These data allow us to anticipate the result of the second correlation whereby, after refining the criteria which define the concept of centrality because of the particularities of the logic of the location of tourism activities, it has been shown that this concept follows the trend that the other authors verify.

Secondly, the first correlation has also allowed us to confirm the results of Quintana of 1970, from the reaffirmation of a greater commercial diversity which is expected to target tourism more directly and not only giving a commercial response to the resident population.

Thirdly and lastly, the qualifying types have emphasized again the redistribution of commercial activity and services in the last 40 years. On account of their location, mainly in the coastal municipalities, it can continue closely connected with tourism.

This redistribution caused largely, as we have mentioned, by the weight that the capital has lost, leads us to mention one of the conclusions of Quintana (1979: 89) "*Does not the apparent scarcity of Palma obey to a genuine lack of centrality? In other words, does not the regional capital constitute an intermediate core?*". Nowadays, this innovative reflection in the 1970s can be considered thoroughly incorporated in the geographical analysis. Due to the technology revolution over the last 40 years, transport and communications have broken, partially, with the importance of the commercial location. At present, we find ourselves with a distribution of diversity of establishments on the territory that does not respond to the concept of centrality in which the central place theory was based on. This implies that the current Mallorca does not need a capital city that achieves a 100% of establishment's diversity, but that the concept of integration of the entire urban system is required in order to become a unique center of first order, even at a European scale, from its specialization in tourism services.