# Direct observation as a methodology for effectively defining tourist behavior

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## **Abstract**

This paper presents the results of a study that used direct observation methodology to recognize tourists' behaviour in the monumental city of Girona (Spain). The tourists were tracked from a prudent distance and all information relating to their visit was gathered. The results of applying this methodology can be used to define the effective behaviour of tourists in a heritage city and also shape itineraries around the city.

**Keywords:** direct observation, tracking tourists, monumental city, cultural heritage

#### 1 Introduction

The way in which the tourist facilities and the use of the space by tourists transform the logic of a destination has been studied as an important research line. This analyses move between the classical empirical studies of analysis of the use of land (Wu and Cai, 2006) or the locating of the tourist facilities (Urtasun and Gutiérrez, 2006) and the conceptual proposals on the general characteristics of tourist spaces (McManus, 2001). Unfortunately the effective behaviour of tourists in the space (the way in which these tourists consume the place), has not been given preferential attention in studies on the social construction of tourist spaces. Understanding the effective behaviour of tourists in the place can contribute to policymaking, planning and management.

In recent years, new methodologies have been applied to study the real tourism behaviour. In this sense, the direct observation methodology is a clear example. This method has been used in some tourist cities with fairly successful results. Thus, for example, Hartmann (1988) in a study on the behaviour of American and Canadian tourists in the city of Munich; Keul and Küheberger (1997) observing tourists in Salzburg (Austria); Donaire and Galí (2008) shaping the tourists routes watching their behaviour in monumental areas; or one of the more innovative and recent works, Shoval and Isaacson (2007), who propose using new digital technologies for gathering data regarding the use of time and space by tourists visiting Jerusalem.

This was the starting point for our proposal. Guided by the methodological indications proposed in these studies, we designed a methodology that would allow us to

ascertain how visitors approach heritage sites in monumental cities. The idea materialized with a project based on and applied in the historical center of the city of Girona. The results of this methodology allow us to determine the different models of relationship visitors have with the city.

# 2 Study Methodology

The study site was the Old Town of Girona, a Spanish small medieval city with a very rich cultural heritage, a high density of monuments and a series of universal signs related to its history. The sample (532 people) was taken from market research into the number of tourists to the city based on diverse sources: the Tourist Information Office, local museums, qualified observations, places to visit where a ticket is required, and the central booking office. The margin of error is 4%, with a level of confidence of 95.5% and the maximum indetermination (p=q=0.5). The sample is random, stratified by months and by point of entry to the city. The percentage of visits registered per month of the year was obtained from the previously mentioned sources, with two periods of maximum intensity (spring and summer) and two lower periods (autumn and winter). The second criterion for stratification was point of entry to the city. From direct observation it was calculated that almost all tourists enter the Old Town by crossing Sant Feliu Bridge (constituting approximately 75% of real entries) and Pont de Pedra Bridge (constituting the other 25%).

The visitors observed were selected using systematic random criteria: every fifth visitor who crossed the sampling point. Data was gathered using voice recordings. To avoid bias, observed visitors did not know that they were being observed, and were only informed after they had abandoned the Old Town and had ended the visit.

Data gathering combined direct observation of tourist behaviour with the conventional questionnaire at the end of the visit. In practical terms, the direct observation method consists of following subjects from a prudent distance, recording the pattern of their visit over time and space. We gathered three types of data: (a) data relating to the behaviour of visitors along the different stretches (we used stretches of street between two junctions for our analysis); (b) data relating to the behaviour of visitors at the tourist sights situated at different points of the urban network; and (c) data related to the particular characteristics of visitors and their perception of the tourist experience.

Therefore, the first step was to identify the 158 stretches of street which comprise the historical centre of Girona. The following information was gathered for each stretch: time of entry, time of exit, attitude, elements photographed and observations. We also divided the city of Girona into 28 sights. Diverse documentation was used to determine these sights, in particular a study into the image of the city. The sights comprise the main monuments and symbolic elements of the city (religious buildings, open public spaces, walking routes, museums, etc.). The following information was observed for each sight: time of entry and exit to the sight, attitude, elements photographed and observations

The third source of information was the questionnaire administered to visitors. When observed tourists ended their visit and abandoned the Old Town of the city, they were given a questionnaire based on three types of information: conventional sociodemographic data, characteristics of the visit, and general perception of the city and its heritage elements. Data was also gathered regarding the environmental characteristics in which the visit took place (level of congestion of the city, the weather, the season, and so on). The questionnaire is an adapted version of tourist destination-type surveys (SERVQUAL) which combines different models: the open questionnaire, the Likert scale, and semantic differentiation. The questionnaire developed contributes to: the tourists' perception (functional and psychological image) of the city and the image of the attractions (the sights).

### 3 Results

The results obtained from the study allowed us to:

Ascertain the level of flow of visitors along the different stretches of street in Girona. That is, to determine which stretches are visited by most tourists and those which do not form a large part of tourist routes; in other words, saturated areas and less frequented areas. The most notable result was that most of the historical center is actually invisible to tourists and only some streets comprise a large "highway" along which the main flows of visitors move. Therefore, there exist both "tourist routes" which all visitors follow, and empty spaces.

**Define the time spent walking along each stretch of street.** In the same way that the tourist city can be divided into two spheres – the over-frequented areas and the underfrequented areas – it is also possible to define a new boundary using the time variable. In fact, a relative homogeneity was found in the time taken to walk along the stretches of street, which means that within the city there also appear slow and fast areas. In some parts of the city, time stops. The contemplation of a monument or a façade, or a sweet moment of inactivity on a terrace on the Rambla (the city's main pedestrian avenue) creates a strange feeling of timelessness. At other times, there is the opposite feeling. It would seem that, whether due to the neutrality of a particular area or the desire to reach a tourist attraction quickly, little time is spent in some areas.

**Determine the hierarchy of sights in the city.** The study shows that some sights are visited by most tourists, especially the Cathedral, which is the most-visited sight in Girona. However, other sights pass by almost unseen by the visitor, either because they form part of the scenery of the stretch analyzed, because they are difficult to access, or because they are dominated by the presence of a more important sight.

The relationship between the flow of visitors to the sight and the flow of tourists along the stretch where this sight is located (these are potential visitors) allowed us to produce a matrix with four quadrants corresponding to the four models of sight:

- Star sights. These are sights with a great drawing capacity situated in highly-frequented stretches.
- Potential sights. These are resources with the capacity to attract, but situated in areas where there is little tourist flow.
- Invisible sights. These are sights which are situated in highly-frequented stretches of street but not registered by tourists.
- Peripheral sights. These are situated in fairly unfrequented areas and not registered by tourists.

Demarcate the city's tourist itineraries. The regularities of visitor behaviour have allowed us to also identify a type of itinerary. The initial working methodology was to assign to each route a series of discriminatory factors that could help to identify groups or clusters: point of entry, number of sights, visit to monuments, etc. The results showed that these factors were indeed significant for classifying itineraries, but did not have very important relative differences: there were other non-metric factors which had a greater influence on the selection of groups of itineraries. The alternative would have been to classify routes according to their morphology. Classification was therefore conducted by means of the qualitative and non-qualitative identification of differentiating factors. The itineraries identified show a very compact behavior internally and a sufficiently differentiated one externally when we analyze the principal metric factors (route times, sights visited, distance, etc.).

## The four basic categories are:

- Basic Itinerary. This itinerary is characterized by visits to one sole element, which is the Cathedral and the space around it.
- Shopping Itinerary. This route is motivated by shopping and therefore does not include any visits to monuments. That is, the tourist does not come into contact with the areas of the historical centre where monuments are located.
- Complex Itinerary. Interest is focused on visiting more than one heritage site. In this case, other than the Cathedral complex, the visitor shows particular interest in a secondary area where monuments are located.
- Wall Itinerary. This itinerary is differentiated from the rest because the visitor has used one or several stretches of the city walls (north, center or south).

Find out information about tourists who visit Girona and their perception of the city. That is, determine the individual differences of each tourist, the personal factors that have an effect on their experience, sociodemographic factors and circumstances surrounding the visit (weather, congestion, time of day, date of visit, etc.). In short, we have analyzed tourists who visit the city using the results of the questionnaire administered to them. Questions were related to functional aspects of the visit: use of information, museum visits, accommodation, transport, guided or unguided visit, etc. Data was also gathered regarding the impression of the city, individual assessments, and the role of tourist image in the perception of the visitor. In short, the subjective thoughts constructed in visitors' minds and which affect their behavior. Furthermore, the interviewer also collected general data regarding the visit obtained by direct

observation (date, start time, weather conditions, congestion levels, number of companions, use of a guide book, etc.).

The results of the data observed offer precise information regarding both the conditions of the visit and the characteristics of the visitor and his or her perception: distribution by gender, by age, type of visit, sources of information consulted, decision-making moment, time dedicated to the visit, evaluation of sights, etc.

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